REFERENCE MANUAL

COMPOSER'S

MOSAIC

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COMPOSER'S MOSAIC

Reference Manual

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Contents

CHAPTER 1 About Mosaic

Mosaic is a powerful and flexible music notation program for the Apple Macintosh computer. It provides a comprehensive environment in which to compose, notate, and print music. Here are some examples of what you can create with Mosaic:

- Lead sheets
- Piano/Vocal arrangements
- Piano scores
- Orchestra scores and individual instrument parts
- SATB choral scores and individual parts
- Method books and other instructional materials
- Musical examples to be placed in word-processing and desktop publishing programs like Microsoft Word or PageMaker

Design philosophy

Music software today seems to fall into two categories: either it is easy to use but doesn't offer enough power and flexibility, or it is very powerful but difficult to use.

Mosaic is designed to be powerful, flexible and easy to use. The development team has attempted to design a program that will let you create music manuscripts that look just the way you want without a lot of fuss.

In Mosaic we've tried to strike a balance between two extremes: making things happen automatically versus making things be completely up to you. We want Mosaic to do a lot of the work for you; on the other hand, we have built in a great deal of flexibility so that you can make your music manuscripts look the way you want. Mosaic gives you the best of both worlds, and you will enjoy the speed at which you will be able to produce professional music manuscripts.

What does Mosaic provide?

Mosaic provides:

- A "what you see is what you get" (WYSIWYG) environment, similar to Macintosh graphic and page layout software, in which to create and notate music
- A standard, Mac-like interface (with a touch of graphic flair!)
- Easy access to commands so that you don't have to dig deeply into menus, tools, and dialog boxes to get things done
- A simple click and drag interface to insert and place symbols
- Standard graphic handles to move and reshape objects
- Unlimited Undo/Redo, which provides a more relaxing environment in which to work
- Control of page margins, staff placement and other aspects of page layout directly on the page
- Page layout templates for large documents
- A unique (non-linear) spacing algorithm that provides automatic, graceful music formatting
- MIDI input and playback, including real-time transcription and step entry

Mosaic feature highlights

Here are some highlights of Mosaic's capabilities:

- Unlimited maximum number of staves (restricted only by available memory)

- Unlimited symbol placement
- Unlimited text placement and formatting
- Automatic score and instrument part generation
- Multiple voices on a staff
- Moveable, adjustable palettes
- Zooming
- Transposable chord symbols, with or without guitar fret diagrams
- Cross-staff beaming
- Adjustable stem length and beam angles
- An intuitive, Mac-like text entry window in which to type lyrics and then flow them into a manuscript
- Flexible measure numbering
- Complex meters such as 3 + 4 over 8
- Ability to open and export standard MIDI files
- Ability to export notation as a PICT graphic (with embedded PostScript) to desktop publishing, word processing, and graphics software
- Transposable chord symbols
- Casting Off command, which lets you set the number of measures per line and space them evenly or proportionally
- Scale Spacing command lets you tweak note and measure spacing, from a single note to an entire view
- Scale command scales the size of notes and rests independently of the staff point size--ideal for cue note passages.
- Ability to completely customize the Mosaic Macintosh keyboard commands. Includes keyboard layouts for Professional Composer, Encore, and Finale

Read on to learn how to use these capabilities and more!

A comparison for experienced Macintosh users
If you are experienced with the Macintosh, you can get a pretty good idea about how Mosaic works by comparing it to other Mac software with which you are familiar. Here are some comparisons to other software, including Mark of the Unicorn's Performer MIDI sequencing software.

Mosaic has two important structural building blocks called *staves* and *voices*, which can be understood in terms of tracks and MIDI data in Performer. A voice in Mosaic is similar to a track in Performer: it contains music. A voice in Mosaic is similar to a stream of MIDI data, perhaps on a single MIDI channel. A voice gets placed in a staff just like MIDI data gets placed into a track. The only difference is that multiple voices can be placed on a staff, whereas Performer only holds one stream of MIDI data in a track. The notes and rests in a voice flow through the staff.

Just like Performer, Mosaic has a separate Staves window and Voices window and permits an unlimited number of voices and staves in a file.

To see voices and staves as music notation, you place them in a View, which is a standard Macintosh window similar to what you work in with a standard graphics or page layout program. Musical symbols can be inserted and positioned in the view window by clicking and dragging. For example, you can insert a slur by clicking the slur symbol in a palette and dragging the mouse above or below the notes. You can reshape the slur by dragging its reshape handles.

To enter text, you select the text tool, drag a text box, and type in it just like you do in MacDraw. Text can be placed relative to its position on the

page (such as a title or page number), relative to a staff system (such as a rehearsal mark), or even relative to a note so that it flows with the note.

To work with lyrics, Mosaic provides a Lyric window, which functions just like a miniature MacWrite document. You can type, backspace, set the font and style, and so forth. When it comes time to apply the lyrics to the music, Mosaic automatically flows each syllable underneath the notes you have written.

To enter chord changes, Mosaic provides a special tool that lets you play them in from a MIDI controller or type them in by hand. Mosaic recognizes all standard chords and tensions in all keys. You can even teach Mosaic new chords. Mosaic automatically formats chord symbols correctly; once entered, they can be easily transposed and edited.

Mosaic has standard cut, copy, paste and erase commands. It also has snip and splice commands similar to Performer.

Two of the most powerful features in Mosaic are the unlimited Undo/Redo commands. Just about *everything* is undoable and redoable in Mosaic. And you can undo and redo as many times as you want. This lets you work more freely, exploring avenues and retracing your steps if necessary.

A note to Professional Composer users

If you have used Professional Composer, you are of course wondering, "How does Mosaic compare?" You will be pleased to know that Mosaic addresses many of Composer's drawbacks and limitations. In fact, Mosaic's design is largely due to feedback we received from you over the years. We thank you for your contribution and hope that you are pleased with the results.

In addition to the features already mentioned above, here are several features in Mosaic that might interest you:

- A page view display (in addition to a scrolling galley view like Composer's), which displays each page exactly as it will print and allows you to edit music and control layout directly on the page
- Multiple voices on a staff (No staff merging necessary)
- Combined (multi-measure) rests in multi-staff parts, such as piano and harp parts
- Transposable chord symbols
- Automatic meter and key change warnings before system breaks
- Cross-staff beaming
- Adjustable slurs and ties (and other groupings)
- WYSIWYG page formatting
- Definable beaming (You decide how beams will automatically get grouped for each inserted meter)
- More flexible triplets and tuplets
- Automatic splitting of back-to-back repeat bar lines
- Courtesy accidentals
- Optional emulation of the Professional Composer keyboard

About this manual

This manual is a reference guide for Mosaic. If you would like help getting started with Mosaic, refer to the accompanying book, "Getting Started", which provides the following information:

- System requirements
- How to install Mosaic
- How to prepare Mosaic for MIDI playback and recording

It also provides:

- A guided tour of Mosaic
- A tutorial on how to enter a lead sheet

This reference guide gives you complete information about all of Mosaic's features. The extensive index will help you find what you need to know quickly.

In particular, chapter 38, "Quick Reference" serves as a quick reference guide for all of Mosaic's menu commands, windows, palettes, and dialog boxes. They are listed alphabetically by their name in the program.

You'll find a helpful troubleshooting guide in the appendices, as well as a keyboard chart and a keyboard diagram. We've also included a list of references regarding music notation and engraving.

Watch for the following symbol in the manual:

It indicates information that deserves special attention.

CHAPTER 2 Opening and Saving Files

This chapter explains how to open and save Mosaic files. You will learn how to:

- Open a new or existing Mosaic file
- Save your music on a disk
- Avoid file and disk errors
- Back up your files so that you don't lose important work

Mosaic saves and opens files in a standard Macintosh fashion. If you are familiar with saving and opening files, here are several things you should know about Mosaic:

- Mosaic can have more than one file open at a time.
- A Mosaic file can contain several views. (A view is a window in which you enter and edit music. For more information about views, see chapter 5, "Page Views and Galley Views".) Don't confuse views with files. For example, you might have several view windows open, but only one file, because the views all belong to the same file. If you are working with multiple files, you can always tell which file a view belongs to by looking at the title bar: the name of the file is shown in parentheses.
- You can customize what appears on the screen when you open a new file. For information, see "Customizing your new file setup" on page 15 in this chapter.

WHAT IS A FILE?

A file is a document created by Mosaic that stores the music and other information that you enter. For example, if you open Mosaic, enter a lead sheet, and then save the lead sheet, it is written on the disk in the form of a Mosaic file as shown in Figure 2-1. It is separate from the Mosaic program itself.

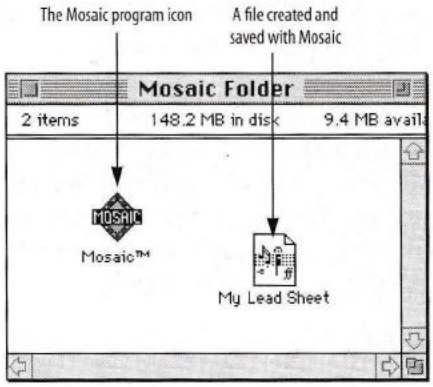


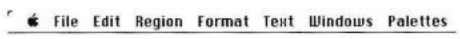
Figure 2-1: This folder contains the Mosaic program and a file document created and saved with Mosaic.

OPENING MOSAIC

To start up Mosaic and create a new file:

- Double-click the Mosaic program icon to launch (open) Mosaic.

Alternately, you can click the Mosaic icon once and choose Open from the File menu. Mosaic will take a few seconds to start up. You'll know when Mosaic is ready when you see Mosaic's menus in the menu bar:



CREATING A NEW FILE

To create a new file, you have two choices. You can open a new file with a pre-existing setup of staves and windows, or you can customize the new file's setup upon creating it.

To create a new file with a pre-existing setup	Select New from the File menu. A new file appears with the pre-existing set of staves and windows.
To create a new file with a customized setup	Select New Setup from the File menu. The New Setup command dialog box appears on the screen.

When you use the New command, what you see on the screen depends on the default file setup that has been saved in the copy of Mosaic that you are running. If you have not yet used the Save As Default Setup command, you will see a window containing a staff on which you can begin entering music. If you would like to customize what appears when you create a new file, see "Customizing your new file setup" on page 15 in this chapter.

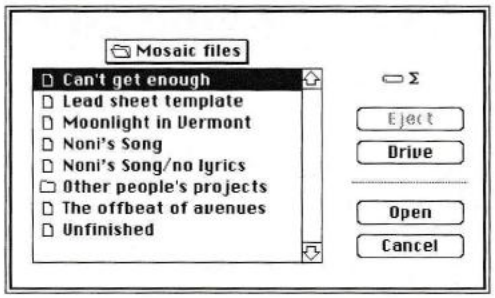
OPENING A FILE

To open an existing file from the Macintosh Finder, double-click the file icon. Alternately, you can click the file icon once and choose Open from the File menu. This will start Mosaic and bring up the selected file.

If Mosaic is already running:

1 Select Open from the File menu.

A dialog box appears, containing a list of files on the selected disk. To see files on a disk in a different drive, click Drive. To view files on another disk which is not currently in a drive, click Eject if necessary and insert the other disk



2 Click the name of the file you wish to open.

3 Click Open.

The file you select will open. Alternately, you can double-click the name of the file to open it.

Opening a standard MIDI file

Mosaic can open a file that has been saved in the standard MIDI file format. To open a MIDI file, select it from the Open dialog box as normal. The file opens as a Mosaic file; if you want to save it back into MIDI file format, see "Saving a file in the standard MIDI file format" on page 14.

For complete information about opening and saving MIDI files, see chapter 30, "Importing and Exporting Standard MIDI Files".

Opening files created in a previous version of Mosaic

Files created in a previous version of Mosaic can be opened as described in "Opening a file" on page 12.

SAVING FILES

Please read this section thoroughly! When you open a file from a disk, Mosaic makes a copy of that file and places it in the Macintosh's temporary memory (called *Random Access Memory*, or RAM). When you work with the file, you are actually working with the copy that is in RAM, not the original file on the disk. When you choose *Save* from the File menu, Mosaic writes a copy of the modified file in RAM to the disk, *replacing the original file with the same name*. If you do not save, the modifications

you have made are never written to the disk. For example, if you quit without saving changes, the work you have done is not saved on the disk and is permanently deleted from the computer's memory.

This is why files should be saved frequently. If Mosaic or your Macintosh should malfunction, all of the work you have accomplished since you last saved may be lost! However, if the file was recently saved, you can retrieve the latest version from the disk and proceed without having lost much work.

Always be sure that the disk you are saving the file on has enough room! Files can be saved to any disk with sufficient space for the file. They can also be saved with different names.

To save a file:

1 Choose the Save command from the File menu, or press command-S.

If you are saving the file for the first time, a dialog box appears prompting you for a name.

2 If necessary, use the Drive and Eject buttons to choose a disk on which to save the file.

3 Type in the desired name.

You can't use a colon in the name; all other characters are permitted, including spaces. If you enter a name that matches the name of a file that already exists in the same folder, a dialog box will ask you if you want to replace the existing file.

4 Click Save or press return.

If you want to save the file to a different disk, use the Drive and Eject buttons if necessary. Pressing Cancel withdraws the Save command.

Your file is saved on the disk in its current state, replacing the old version with the same name. If you want to keep the old version, use the Save As command. See "Using Save As to preserve the last-saved version of a file" on page 13.

Using Save As to preserve the last-saved version of a file

When you open an existing file from a disk, Mosaic makes a copy of that file and places it in RAM (temporary memory). When you work with the file, you are actually working with the copy that is in RAM, not the original copy on the disk. When you choose Save As, you are given an opportunity to type a new name for the modified version of the file in RAM and save it as a separate file from the original. Doing so preserves the original version of the file on disk, while at the same time saving the modified version to disk under a different name.

For example, let's say that you already have a file on disk that contains some music and lyrics. Now you would like to create another version of the file with the lyrics removed, but you still want to keep the original version with lyrics. To do so, you would open the file, remove the lyrics, and then choose Save As, type in a different name for the no-lyric version, and save it under that new name. In this example, you might just add an extension such as "-no lyrics" to the original name. The result is a new file, based on the original file, that contains the modifications you made.


My Song


My Song - no lyrics

You can use Save As even if you haven't yet made any modifications to the original file. Just open the original file and choose Save As without making any change. You can then make modifications and use the Save command.

To use the Save As command:

1 Choose Save As from the File menu.

The Save As dialog box appears.

2 Type in the new name for the file.

You can't use a colon in the name; all other characters are permitted, including spaces. If you enter a name that matches the name of a file that already exists in the same folder, a dialog box will ask you if you want to replace the existing file.

3 If necessary, use the Drive and Eject buttons to choose a disk on which to save the file.

4 Click Save.

Your file is saved on the disk in its current state under the new name.

☛ Important: after using Save As, the file shown on the screen is the newly "saved as" file, not the original file. If you want to work with the original file, you must open it using the Open command.

Choosing a disk and folder in which to save a file

When using the Save or Save As commands, you can use the Drive and Eject buttons to choose the disk on which to save the file. The disk that is currently shown in the dialog box will be the disk on which the file will get saved. To switch to a different disk drive, click Drive. If the dialog box is displaying a disk in a floppy drive, but you need to eject it to insert a different disk, click Eject and then insert the other disk.

Once you are viewing the desired disk in the dialog, you can then choose a folder in which to save the file by double-clicking the folder name in the list.

Saving a file to a disk not currently in a drive

To save a file to a disk not currently in a drive:

1 Choose the Save As command from the File menu.

The Save As dialog box will appear.

2 Click Drive to select a disk to eject.

3 Click Eject.

The disk that is currently displayed in the dialog box window will be ejected.

4 Insert the disk on which you wish to save the file.

5 Click Save.

What gets saved in a file

Along with your music, Mosaic saves almost every attribute of your file, including open windows and their screen positions, zoom settings, the on/off status of such features as combine rests, and many others.

Some settings are saved with the copy of Mosaic that are running on the hard disk. These settings remain saved with Mosaic until you change them.

☛ If you make a fresh copy of Mosaic, the new copy won't necessarily have the same settings as your old copy. Instead, it contains the factory default settings, so you may need to reset them.

Saving a file in the standard MIDI file format

Mosaic can save files in the standard MIDI file format. Music saved in this format can be opened with any program that also reads and writes MIDI files--even programs that run on other types of computers.

To save a Mosaic sequence in the MIDI file format:

1 Choose Save As from the File menu.

2 Click the MIDI file option.

3 Type in a name for the MIDI file.

4 Choose a folder in which to save the file.

5 Click OK.

Because of the nature of the MIDI file format, many of the musical symbols that you can enter in Mosaic will not get saved in the MIDI file. Therefore, we strongly recommend that you save Mosaic files with the Save and Save As commands, which save them in the Mosaic file format. Only save music as a standard MIDI file if you need to transfer the file to another program, such as a MIDI sequencer like Performer.

Here is a summary of the items that cannot be saved in a MIDI file:

- Text and lyrics
- Slurs, ottavas, endings, and other groupings (Ties *are* saved.)
- Articulations and ornaments
- Notehead styles (i.e. the "x" notehead)
- Dynamics
- Staff connections

For more information about MIDI files, see chapter 30, "Importing and Exporting Standard MIDI Files".

CLOSING A FILE

To close a Mosaic file, choose Close from the File menu. If you have made changes since you last saved the file, Mosaic will ask you if you would like to save first before closing. If you would like to save the changes, click Yes. If you do not, click No. If you aren't sure, click Cancel to withdraw the close command. You can then check the file before attempting to close again.

Closing when you have more than one file open

Like many Macintosh programs, Mosaic allows you to open more than one file at a time. If you have several files open and you wish to close one of them, activate one of the file's windows. You can do so by clicking the window's title bar or by choosing the window name from the Windows menu. For your convenience, each of the basic windows (Staves, Views, Voices, Lyrics, etc.) display the file name in parentheses in the title bar.

☛ Please note! Clicking the close box in a window's title bar does not close the file. Doing so closes the view window, but the file stays open. This is because each Mosaic file can contain multiple views, which you can close and open without closing and opening the file. Always use the Close command in the file menu to close the file.

CUSTOMIZING YOUR NEW FILE SETUP

The Save As Default Setup command, found in the File menu, allows you to customize the file that you get when you choose New from the File menu.

The word *default setup* refers to an initial framework in which you build a file. The Save As Default Setup command allows you to customize your new files to save you time when building your files.

You can customize just about anything having to do with a file: what windows appear on the screen, zoom settings, page layout, default settings for features like display combines rests, and more.

For example, let's say you typically make lead sheets. You like to work in a page view with a piano/vocal staff arrangement. You use a standard format for the title and copyright notice, a standard font for lyrics, and a preferred zoom setting of 200%.

You can use the Save As Default Setup command to give your new files all of these characteristics *automatically.*

To use the Save As Default Setup command:

1 If you aren't already in a Mosaic file, open one or choose New from the File menu.

2 Configure Mosaic as desired, including windows, their contents, and any other features as you find most useful.

This file will become your new file setup: Mosaic will remember your exact track setup, window layout, voices, staves, zoom levels, and so on.

3 Choose Save As Default Setup from the File menu.

A dialog box asks you to confirm or cancel your request.

4 Click OK to confirm the command, or Cancel to withdraw it.

When you OK the command, Mosaic redefines your new file setup based on the current file. All attributes specific to the current file now comprise a New file in the copy of Mosaic you are using.

5 (Optional) Choose Save from the File, type in a name such as "New File Setup," and save your new file setup as a regular Mosaic file on disk.

You may be thinking, "But I already saved my new file setup in the last step!" And you are right. You did. But in the previous step, the new file setup gets stored *in the Mosaic preferences file in the System Folder.* If you should trash the preferences file, you will lose your new file setup as well. Therefore, we highly recommend this last step, which saves your new setup file as a regular Mosaic file on disk. Thus, you can update it and restore it at any time without losing it.

To see the effects of Save as Default Setup, close the current file and choose New from the File menu. A new, empty, untitled file will appear, identical to the last file you saved as 'New'.

Updating your new file setup

Once you have made a spare copy of your new file setup, redefining and updating it is easy.

To update your new file setup:

1 If you are in a Mosaic file, choose Close from the File menu to close it.

If you've made any changes to the file, you'll be prompted to save them.

2 Choose Open from the File menu and open your New File setup file.

3 Make the modifications you wish to make.

4 Choose Save from the File menu.

This saves the modifications to the setup file on disk.

5 Choose Save As Default Setup from the File menu.

This saves the modification in the copy of Mosaic you are currently running.

QUITTING MOSAIC

Quitting Mosaic returns you to the Finder. To quit, choose Quit from the File menu.

A dialog box may appear asking you if you want to save changes made to the file. To save the changes, press Yes. If you don't want to save changes, press No. If you have more than one file open, Mosaic will ask you about each one. To withdraw the Quit command and return to your Mosaic file, press Cancel.

CONVERTING PROFESSIONAL COMPOSER® FILES

Mosaic can open Professional Composer files and convert them into Mosaic files.

To open and convert a Professional Composer file:

1 Choose Open from the File menu.

2 Locate the Composer file that you wish to load, select it, and click Open.

3 Wait for the file conversion to take place.

Depending on the size and nature of the file, you may need to wait a few minutes for Mosaic while it converts the Professional Composer data into Mosaic data.

4 When Mosaic completes the conversion, the Composer file appears as a view window.

5 Choose Save from the File menu and save the newly converted file with a different name than the original Composer file.

Handling invisified rests

Mosaic does its best to interpret the data in the Composer file. It judges the context in which invisified rests occur and either removes them or converts them into regular rests. However, they may have been used in a way that Mosaic could not anticipate. As a result, you may need to clean up the invisified rests after the file is converted, removing them or re-entering them as necessary.

Handling text and lyrics

Mosaic also does its best to interpret lyrics. However, due to the way that the lyrics may have been entered in the Composer file, they may not always end up all together in the same lyric window. If so, you can copy and paste them together into the same lyric and reflow the combined lyric through the voice. Review chapter 16, "Lyrics" for more information. In addition, some voice text may be interpreted as lyrics, and some lyrics might be interpreted as voice text.

DEALING WITH FILE PROBLEMS AND DISK ERRORS

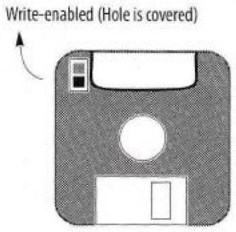
The following are a few file problems and disk errors that commonly occur. *Always keep plenty of up-to-date backups of your important files as you work. Almost any software problem is survivable as long as you have kept backups of your work.* See *Appendix A, "Troubleshooting and Technical Support"* for more information about problems you may encounter with Mosaic files.

There isn't enough room on the disk. Your disk is too full. Eject the disk and insert one with plenty of free space on it. Note: If Mosaic runs out of disk space while saving a file, the file on disk will be damaged. If this happens, *immediately use the Save As command to save the file to a disk with more space available.* If you fail to do this, and you have not made a backup file, you will have lost an entire file. As a rule, before opening an existing file, be sure the disk on which it is stored has enough free memory to hold the information you expect to add.

An error occurred while writing the file. This is a dangerous situation. In all probability, the existing copy of the file on the disk has already been erased so that the new copy could be saved. Because of the error, any partial file that has been saved cannot be read. At this point, the only good copy of the file is in memory. Immediately try to save the file on

another disk. *Do not* attempt to use the Revert to Saved command on the File menu; the saved copy is damaged and you will lose the file in memory.

The disk is locked. Unlock the disk by sliding the small tab on the back of the disk in the upper left-hand corner down so that it covers the small hole.



The disk can't be read. The disk itself may be damaged. Return to the Finder and try inserting the disk again. If it still can't be read, it may be irretrievable. If it is a hard disk, try a disk utility program such as Disk FirstAid.

PREVENTING CATASTROPHE

Save your file as often as possible. You should use the Save command after every significant change to your file.

Always keep backup copies of your important files. We cannot emphasize enough the importance of this. At the end of a working session, copy to a backup disk all of the files you recorded and edited. This way, if anything should happen to your original, you will have fully updated backup of the file.

Saving a file under a different name while working can be useful when you want to keep a record of earlier versions.

When saving files during a working session, it is a good idea to save alternately under different file names; if something should happen to one of the files, the other will be a recent version. For example, a file can first be saved under the name "Lead Sheet 1". The next time it is saved, choose the Save As command from the File menu and save it as "Lead Sheet 2". The following time, it is saved as "Lead Sheet 1" again, then "Lead Sheet 2" and so forth. To be even more careful, save a file to different disks during a working session.

Hard disk users should make sure to backup their files to floppy disks. This should be done as often as is bearable, at least at the end of every working session and several times during the session if possible. The consequences of not making floppy backups are severe: if your hard disk is damaged, some or all of the files may be lost forever.

CHAPTER 3 Working with Menus, Windows, Palettes, and the Keyboard

This chapter explains several unique aspects to Mosaic's windows, palettes, and menus.

USING THE WINDOWS MENU

Mosaic organizes the structure of a file into windows, which can be opened by selecting them from the Windows menu.

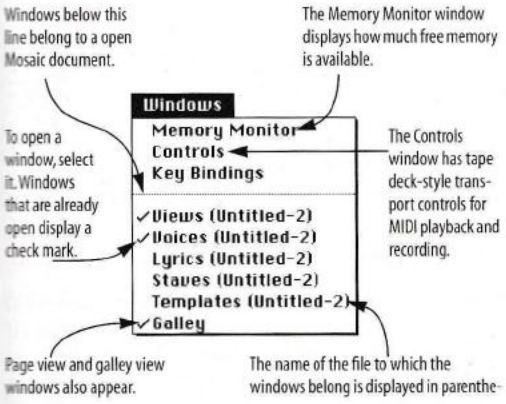


Figure 3-1: The Windows menu.

The top three items in this menu are always present. When a file is open, the next five windows are always present: Views, Voices, Lyrics, Staves, and Templates. Other windows that you create, such as lyrics, pages views, and galley views, appear at the end of the list. (See chapter 5, "Page Views and Galley Views" and chapter 16, "Lyrics".)

Mosaic allows you to open more than one file at a time. For example, if you have two files open, they are separated by a line in the Windows menu as shown in Figure 3-2 below.

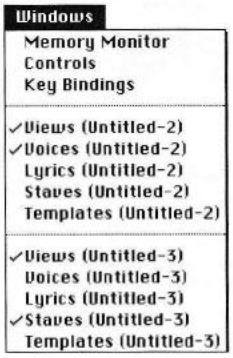


Figure 3-2: When multiple files are open, they are separated by a line in the Windows menu.

You can always determine what file a window belongs to because the file name is displayed in parentheses in the window's title bar. (See Figure 3-3 on page 20.)

USING WINDOWS

The Views, Voices, Lyrics, Staves, and Templates windows are similar. Figure 3-3 is an example.

(For complete information about the Staves window, see chapter 4, "Voices and Staves".)

As you can see, Mosaic's lists windows look a little different from standard Macintosh windows. They have many similarities, as well as a few enhancements to the Macintosh user interface.

For information about page and galley view windows, see chapter 5, "Page Views and Galley Views".

Mini-menus

Mini-menus contain commands that are specific to their window. The mini-menu operates in the same fashion as any Macintosh menu: click it and the menu pops down, from which you can select a

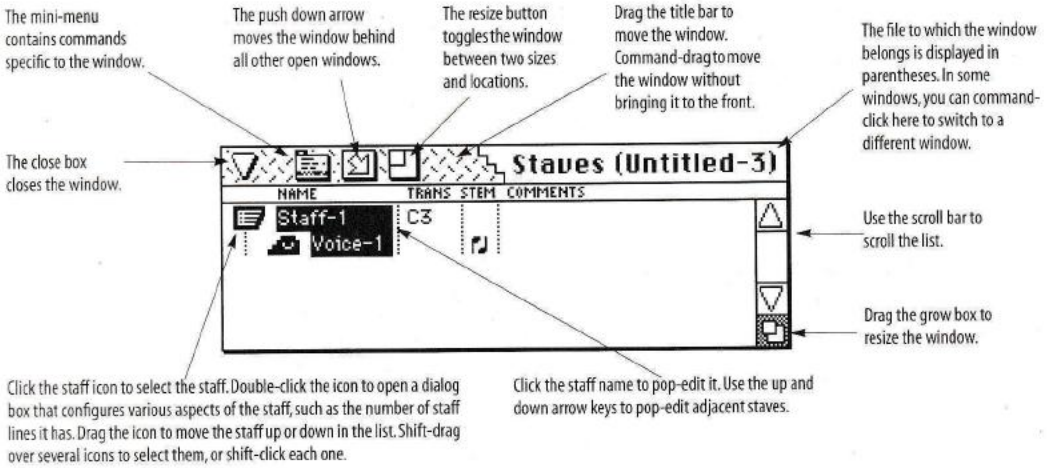


Figure 3-3: A Mosaic list window.

command. Often, a mini-menu command is activated by selecting items in the window (as described in Figure 3-3 above) and choosing the mini-menu command.

The active window

The topmost window--that is, the window that is in front of all other windows--is the *active* window. It is indicated by fully detailed borders; when a window is inactive, its top border and scroll bar are blank. To activate a window so that you can work in it, click it. If you can't click it, choose its name from the Windows menu.

USING PALETTES

The palettes contain a majority of the musical symbols you can enter in Mosaic. Any symbol can be entered by clicking the symbol in the palette and clicking at the appropriate location in the view. Many symbols can also be entered via the keyboard.

Because there are so many symbols in Mosaic, they have been grouped into eleven separate palettes that can be opened and arranged independently, as shown in Figure 3-4 on page 21.

Opening & closing a palette

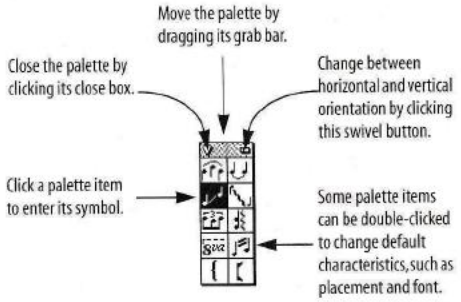
To open a palette, choose it from the Palettes menu.

To close a palette, click its close button in the grab bar.

Palettes always appear on top of other Mosaic windows so that they do not get covered up. To get a palette out of the way, close it.

Controlling a palette

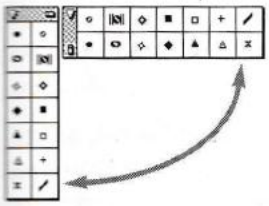
Here is a summary of the ways in which you can control a palette once it is open:



Arranging palettes

Eleven may seem like a lot of palettes. However, you will probably only have a few that you leave open all the time, such as Notes, Articulations, Dynamics, Groupings, and Text. The rest can be opened as needed.

You can arrange them around the outside of the view windows, or you can place them directly on top of a window. For your convenience, palettes can be swiveled between a horizontal or vertical orientation. To do so, click the swivel button at the right (or the bottom of) the grab bar.



Entering palette symbols

To enter symbols from a palette, click the symbol. Click where you wish to insert the symbol. For more specific information about entering each type of symbol, see chapter 38, "Quick Reference", or the respective chapter regarding the type of symbol you wish to find out about.

Retaining tool selection

This command in the Palettes menu is a checkable menu command. When it is checked it is on; when it is unchecked, it is off. When it is checked, and you click a palette item to enter its symbol, it remains selected until you click it again to deselect it. This allows you to enter the symbol in several places without having to reselect the palette item each time.

When this command is unchecked, the tool will deselect immediately after you use the tool, and the cursor will return to an arrow.

Double-clicking palette tools to configure them

Many of the tools in Mosaic's palettes can be double-clicked in order to configure default settings for the tool. For example, if you would like to change where endings appear when you insert them, you can double-click the ending palette symbol to open a configuration dialog box for endings. Detailed information is provided in the groupings, articulations, and text chapters.

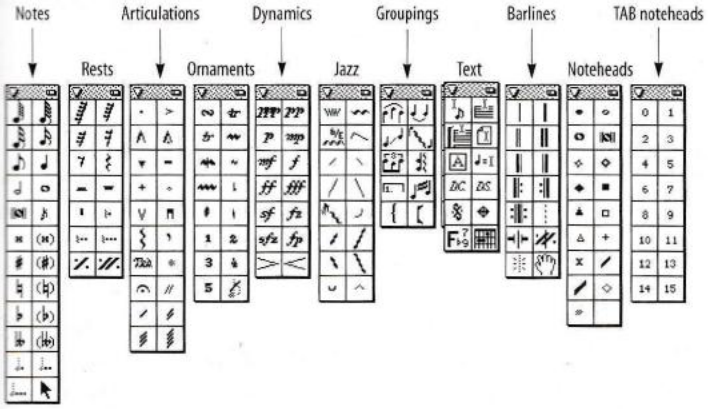


Figure 3-4: Mosaic palettes.

Command-clicking to insert a symbol on a group of notes

Many palette symbols can be inserted over a group of selected notes by command-clicking the palette item. To do so, select the notes on which you would like to apply the symbol and then command-click the palette item.

Getting back the arrow cursor

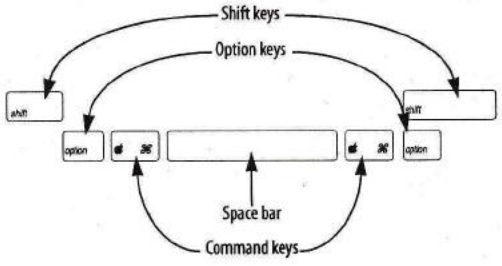
Type command-period (.) to get back the arrow cursor after using a palette symbol.

USING THE KEYBOARD

The Macintosh keyboard serves as a primary way of controlling Mosaic. Many of the chapters in this manual explain in detail how to use it. For an overview, see Appendix B, "Mosaic Keyboard Bindings" and Appendix C, "The Mosaic Keyboard".

Using the keyboard with the mouse

In addition, you'll often need to "option-click", "shift-click", and "command-click" things. To do so, hold down either the option key, command key, or shift key while clicking the mouse. You'll also hold down these keys while pressing other keys. For example, you can zoom in (enlarge) the display of music by holding down the command key and pressing the open bracket key ([ ). In this manual, this action is referred to as *command-[*.



☛ Note! You only need to hold down one or the other of each key, not both.

Type command-period to cancel long operations

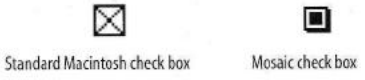
Mosaic may take a long time to compute certain operations. When it does so, it presents a spinning watch cursor. If you don't want to wait any longer, you can cancel the operation by pressing command-period (.) to cancel the operation. This works for most (but not all) operations.

THE MOSAIC INTERFACE

Mosaic's dialog boxes look a little different than the standard Macintosh ones. Shown below are radio buttons:

Radio buttons work such that you can only select *one* of the given choices; if you click on a new button, the previously chosen one will deselect.

The check boxes also look a bit different:



You can select any combination of them.

The following keys can be used when working in a dialog box.

- *Pressing the Return key* is the same as clicking on OK: it confirms the selection in the dialog box.
- *Pressing the Enter key* will also OK a dialog box. It is also used when editing a list of names or data, confirming the current one and moving to the next.
- *Pressing the Command and period keys* together is the same as clicking on the Cancel button: it cancels the selection and leaves the previous settings/values unchanged.

- *Pressing the Tab key* will confirm the current entry field, then move to the next field in the box or list and highlight it.

If you have a keyboard with arrow keys, you can use them as follows:

- *the up arrow* will move through a list of names or events, confirming the current selection and moving to the previous one.
- *the down arrow* will move through a list of names or events, confirming the current selection and advancing to the next one.
- *the left and right arrows* move from field to field in the list windows, confirming the current selection and advancing to the next one in the arrow direction.

In addition to these, there are many shortcut keyboard commands that will allow you to choose commands from menus very quickly. They are indicated on the menus to the right of the commands themselves and can be used instead of pulling down the menu and selecting the command. To use a shortcut command, hold down the Command key and press the indicated key. For example, command-X is the shortcut for the Cut command. Instead of pulling down the Edit menu and selecting Cut, hold down the Command key and press the *X* key.

CHAPTER 4 Voices and Staves

This chapter explains the basic elements of a music manuscript in Mosaic: voices and staves. It explains how to build a score manually using voices and staves, including the following:

- Create voices and staves
- Assign one or more voices to a staff
- Manage the voice and staff lists (add, delete, move, duplicate, etc.)
- Configure a staff for a transposing instrument or percussion

To save time when setting up a new manuscript, voices and staves can be created automatically using the New Setup command in the File menu. For information, see chapter 6, "Creating a New File with New Setup".

WHAT ARE VOICES AND STAVES?

A voice consists of a line of notes and rests. The voice is assigned to a staff, and the notes and rests flow through the measures on the staff. The staff is placed in a view, either a galley view or a page view. You see the voice on the staff in the view as shown in Figure 4-1.

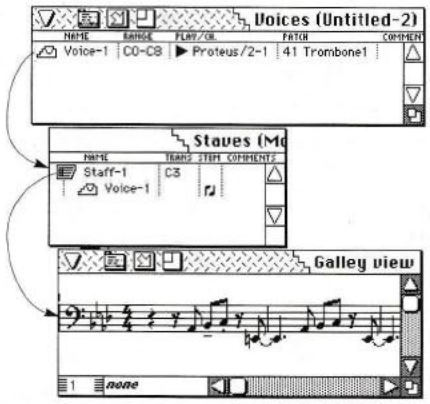


Figure 4-1: Voices and staves. Voice-1 is assigned to Staff-1, which is then placed in a galley view.

Voices exist independently of staves. You can assign a voice to any staff, and you can even assign a voice to several different staves. Conversely, you can assign several voices to one staff. You can change these assignments at any time.

Similarly, staves exist independently of views. You can display a staff in any view, and you can even display a staff in several different views at one time. You can remove the staff from the view at any time.

This independent structure provides you with a great deal of flexibility in the way that you view, format, and print your music.

CREATING A VOICE

A voice consists of a line of notes and rests. Think of it as being what is played by a single instrumentalist. For example a voice could contain the notes played by a vocalist, a trumpet player, a guitar player, or the left hand of a pianist. It might even be only the upper split of a divisi (divided) instrument part.

An explanation for Performer users...

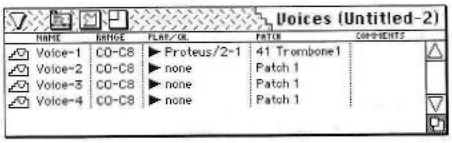
A voice can be understood in terms of tracks and MIDI data in Performer. A voice in Mosaic is similar to a track in Performer: it contains music. A voice in Mosaic is also similar to a stream of MIDI data on a single MIDI channel. A voice gets placed in a staff, just like MIDI data gets placed into a track. The only difference is that multiple voices can be placed on a staff, whereas Performer only holds one stream of MIDI data in a track. The notes and rests in a voice flow through the staff, just like MIDI data flows through the track.

To create a voice:

1 Open the Voices window by choosing it from the Windows menu.

2 Choose Add from the Voices window mini-menu.

If you would like to add several voices at once, hold down the option key while selecting Add from the mini-menu and then type the number of voices you need.



3 Click the name of the voice to pop-edit the name.

If you are naming more than one at a time, use the up and down arrow keys to quickly pop-edit from one name to the next.

4 Pop-edit the range values to set the note range.

See "Setting a note range" on page 26 for information.

5 If desired, enter a comment by clicking the comments column next to the voice name.

Reordering the list of voices

To reorder the voices in the list, drag the voice icon to the left of the name.

Selecting voices

To move, copy, or delete voices, you need to select them. Here is a summary:

To select this:	Do this:
A single voice	Click its icon
Several voices that are not next to one another	Shift-click the icon of each one
Several adjacent voices	Hold down the shift key and drag over their icons

Deleting voices

To delete one or more voices:

1 Select the voice(s) you wish to delete.

2 Choose Delete from the Voices window mini-menu.

☛ Please note! When you delete a voice, it disappears from all views in the file.

Setting a note range

Each voice can have a note range, which is specified in the Voices window next to the voice name.

The note range consists of a bottom note and a top note. When you use the Check Range command in the Region menu, Mosaic searches for notes

outside the voice range. If it finds one, it scrolls to that note and highlights it to bring it to your attention.

The Check Range command is an ideal way to make sure that you do not write notes in a voice that are too low or high for the instrument. However, you are allowed to insert notes outside the range if desired.

The note range is expressed in terms defined by the MIDI (Musical Instrument Digital Interface) specification. MIDI specifies that middle C is C3, where the 3 indicates the octave from middle C to B natural a 7th above middle C. C2 is C below middle C. A3 is A above middle C.

The octave number changes between B and C. For example, B2 is one half step below C3. C#3 is one half-step above C3. The staff below shows the four octaves that span a treble clef staff.

When typing in the desired note range, specify the lowest pitch, followed by a dash, followed by the highest pitch. To type an accidental pitch, type the pitch, a lower case B (b) to indicate a flat or a pound sign (#) to indicate a sharp, followed by the octave number. For example, to indicate the E flat above middle C, type *Eb3*.

The lowest possible pitch is C negative 2 (C-2). The highest possible pitch is G8.

Playing a voice on a MIDI instrument

Mosaic has the ability to play each voice in your Mosaic score on a MIDI instrument, such as a MIDI keyboard or sound module that is connected to your Macintosh via a MIDI interface like Mark of the Unicorn's MIDI Time Piece II or MIDI Express.

Each voice in the Voices window can be assigned to any MIDI channel on any available MIDI instrument. To do so, press in the "Play/ch" column next to the voice name and choose the desired MIDI device and channel from the pop-up menu that appears as shown in Figure 4-2.

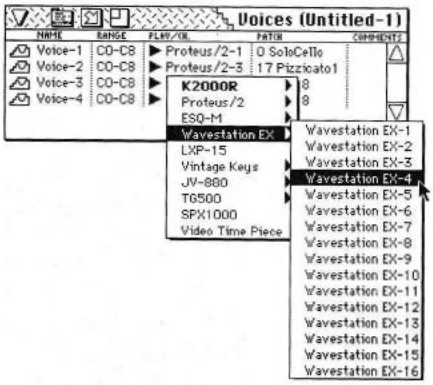


Figure 4-2: Choosing a MIDI playback device and channel for a voice. The list of MIDI devices is provided by FreeMIDI. You can change what's in the list by using the FreeMIDI Setup program that is included with Mosaic.

The list of MIDI devices in the pop-up menu is provided by FreeMIDI. You can change what's in the list by using the FreeMIDI Setup program that is included with Mosaic.

The "Patch" column in the Voices window provides a pop-up list of MIDI patch changes for each voice, from which you can choose the desired patch. The pop-up patch list either displays generic names (i.e. "Patch 1", "Patch 2", etc.) or the actual names of the sounds in the MIDI device chosen in the "Play/Ch" column. For example, Figure 4-3 shows the pop-up patch list for the Proteus/2 sound module from E-mu Systems, Inc.

Any FreeMIDI-compatible patch librarian software can provide patch names as shown in Figure 4-3 for most popular MIDI synthesizers and sound modules. Examples of such software are:

- PatchList Manager™, a simple librarian program that is included free of charge with Mosaic
- Unisyn™, Mark of the Unicorn's universal editor/librarian software

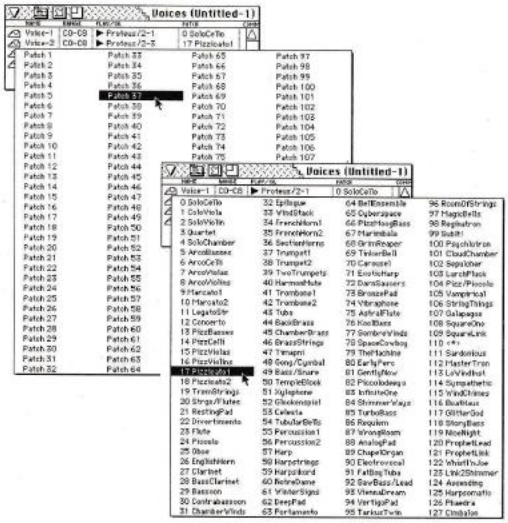


Figure 4-3: A generic patch list on the left, and the patch list for the E-mu Systems Proteus/2 sound module on the right. Any FreeMIDI-compatible patch librarian software can provide patch names as shown on the right. Examples of such software are the PatchList Manager program that is included free of charge with Mosaic, and Unisyn, Mark of the Unicorn's universal editor/librarian software.

For complete information about MIDI playback, recording, and FreeMIDI, see chapter 34, "MIDI Recording and Playback".

CREATING A STAFF

A staff in Mosaic is just like the staves you see on manuscript paper in a music store: it consists of a number of staff lines on which clefs, meters, notes, rests, etc. are displayed.

To create a staff:

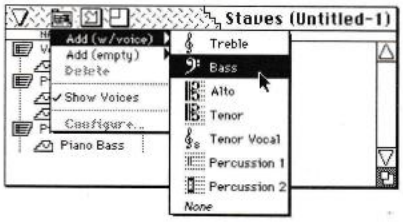
1 Open the Staves window by choosing it from the Windows menu.

2 Choose "Add staff with voice" or "Add staff" from the Staves window mini-menu.

If you choose "Add staff with voice", the staff is added with a new voice already assigned to it. If you would like to add several staves at once, hold down the option key while selecting the Add command from the mini-menu and then type the number of staves you need.

3 From the hierarchical menu, select a clef for the new staff.

You can choose from the list of standard clefs shown. If you need a special clef, you can change it later. See "Changing an existing clef" on page 93.



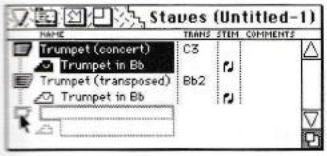
4 Click the name of the staff to pop-edit the name.

After naming a staff, use the up and down arrow keys to quickly pop-edit the next or previous name.

5 If desired, click in the comments column next to the name to type text comments about the staff.

Reordering the list of staves

To reorder the staves in the list, drag the staff icon to the left of the name. All voices assigned to a staff move with the staff when you drag.



Selecting staves

To move, copy, or delete staves, you need to select them. Here is a summary:

To select this:	Do this:
A single staff	Click its icon
Several staves that are not next to one another	Shift-click the icon of each one
Several adjacent staves	Hold down the shift key and drag over their icons

Deleting staves

To delete one or more staves:

1 Select the staff or stave(s) you wish to delete.

2 Choose Delete from the Staves window mini-menu.

☛ Please note! When you delete a staff, it disappears from all views in the file.

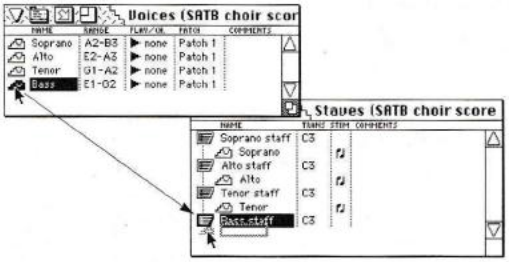
ASSIGNING VOICES TO STAVES

To be able to enter and display notes on a staff, the staff must have at least one voice assigned to it. When you insert notes and rests on the staff, they are inserted into the voice. If the staff currently has no voice assigned to it, you can assign one to the staff as follows:

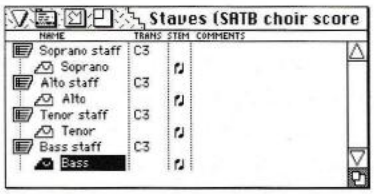
1 Open the Staves window by choosing it from the Windows menu.

2 Open the Voices window.

3 Grab the voice icon and drag it on top of the staff in the Staves window as shown.



The voice appears indented below the staff in the staves window.



Setting stem direction when assigning a voice to a staff

As a short cut, you can assign a default stem direction for a voice by using modifier keys when dragging the voice from the Voices window to the Staves window to assign it to a staff. You can also set the stem direction at any time in the Staff Configuration dialog described later in this chapter (which is opened by double-clicking the staff icon in the Staves window). Here is a summary:

For this stem direction:	Hold down this key while dragging:
Stems up	Option key
Stems down	Command key
Stems up and down	Option key and command key together
Opposing stems	Select desired voices and drag them together to the staff (with no keys held down)

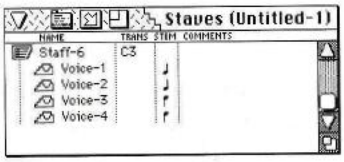
Assigning several voices to a single staff

You can assign as many voices to a staff as you prefer by following the procedure in the previous section for each voice. When doing so, you'll

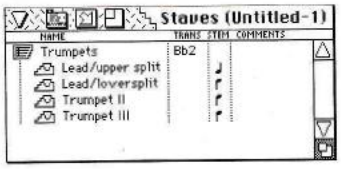
probably want to set a default stem direction for each voice. A voice can have three stem directions: up, down, or both:

To make the voice:	Do this:
Stems up	Option-drag the voice from the Voices window to the staff in the Staves window
Stems down	Command-drag the voice from the Voices window to the staff in the Staves window
Both	Command-option drag the voice from the Voices window to the staff in the Staves window

If you drag multiple voices at the same time when assigning them to a staff, the stem directions are automatically configured. For example, if you drag four voices to a staff, the top two voices are assigned stems-up, and the bottom two voices are assigned stems-down.



For information about changing the stem direction of a voice already assigned to the staff, see "Configuring a staff" on page 31.

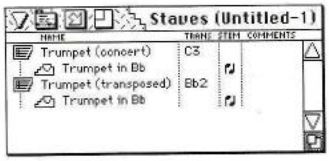


For helpful information about working with multiple voices on a staff, see chapter 27, "Working With Multiple Voices on a Staff".

Assigning a voice to more than one staff

You can assign a single voice to several different staves at once. For example, you could display a voice on a staff in a conductor's score, and also display the voice on a staff in the instrument player's part.

Further, you might want the voice on the instrument part to be transposed to the proper key for the instrument. The context in which the voice is displayed can be different in each voice: each staff may have a different transposition, clef, and key signature. No matter what the context, however, the actual pitches in the voice remain constant.



If you change the pitch of a note on one staff, the change is reflected in any other staff where the voice is being displayed. The notes in the voice are properly spelled according to the key on each staff. For an example, see "Assigning a staff transposition" on page 30.

Assigning a staff transposition

Traditionally, instrument parts are untransposed in the conductor's score so that the conductor can read the score more easily.

Individual parts, however, are transposed to make them easier for the musicians to read.

Mosaic provides for transposed instrument parts by allowing you to set the transposition on the staff on which the voice is displayed. Thus, a transposing instrument voice can be placed on an untransposed staff in the conductor's score and on a transposed staff in the instrument part. The same

pitches are displayed in both places, but they are displayed in their transposed form on one staff and their untransposed form on the other.

Here is an example:

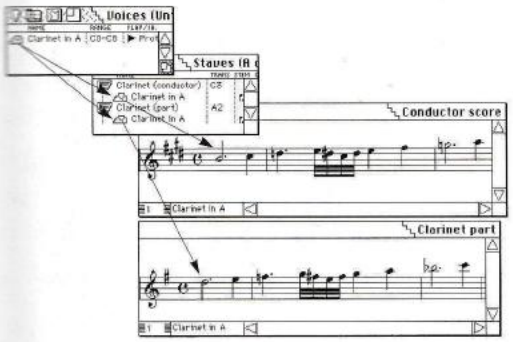


Figure 4-4: The clarinet in A voice has been assigned to two different staves: a nontranposed (concert key) staff for the conductor's score (top) and a transposed staff for the clarinet instrument part (bottom), which is written up a minor third. Notice that the notes belong to the same voice, but they are displayed differently on each staff because of the different staff transpositions.

When you insert a key change on a transposed staff, you select a concert key and Mosaic inserts the proper relative key for that instrument.

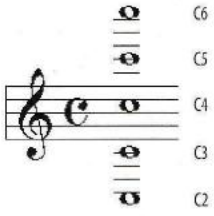
To assign a transposition to a staff:

1 Click the transposition pitch to the right of the staff name to pop-edit it.

2 Type in the desired transposition with respect to middle C (C3).

The note you enter represents the pitch heard when an instrumentalist reading the staff plays a note written as middle C. The pitches are expressed in terms defined by the MIDI (Musical Instrument Digital Interface) specification. MIDI specifies that middle C is C3, where the 3 indicates the octave from middle C to B natural a 7th above middle C. This means that C2 is C below middle C. A3 is A above middle C. So if an Eb alto sax player reads a middle C and sounds an Eb below middle C, the staff transposition is Eb2.

The octave number changes between B and C. For example, B2 is one half step below C3. C#3 is one half-step above C3.



3 When you have typed in a pitch that defines the desired transposition interval, press return to confirm the edit.

CONFIGURING A STAFF

The staff configuration dialog box provides several different ways to configure the staff. You can:

- Display the staff with as few or as many staff lines as you prefer, including no staff lines, a single staff line or more than five.
- Hide ledger lines for notes above or below the staff
- Rearrange the order of voices assigned to the staff
- Set a default stem direction (up, down, or either) for each voice in the staff. When a voice is stems up or down, all notes in the voice default to that stem direction (although they can be flipped manually with the Flip command).

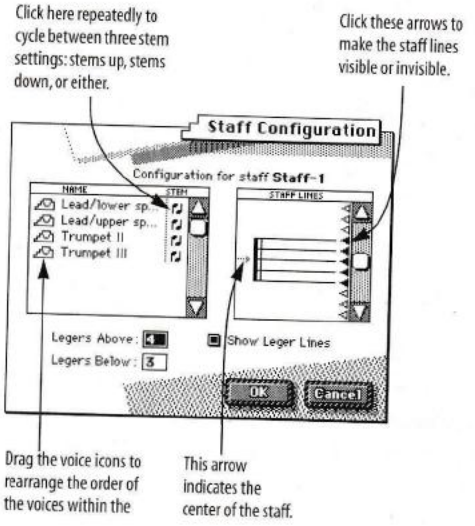
Opening the Staff Configuration window

To open the Staff Configuration window:

1 Open the Staves window.

2 Double-click the staff icon of the staff you wish to configure.

Alternately, you can select the staff by clicking its icon once and choose Configure from the Staves window mini-menu.



DISPLAYING STAVES IN A VIEW

For information about displaying staves in a view, see chapter 5, "Page Views and Galley Views".

CHAPTER 5 Page Views and Galley Views

This chapter shows how to:

- Observe and edit music in a page view, which displays music on the screen exactly as it will print out
- Display music in a galley view, which is a continuously scrolling single staff system for convenient editing and note entry
- Display staves in more than one view

This chapter explains how to create views manually. To save time, views can be generated automatically using the New Setup command in the File menu. For information, see chapter 6, "Creating a New File with New Setup".

WHAT IS A PAGE VIEW?

A page view is a window in which you can see your music, including staves, notes, lyrics--everything, laid out on one or more pages in exactly the same way it will appear when you print.

"What you see is what you get"

A page view provides you with a "What you see is what you get" (WYSIWYG, pronounced "wiz-ee-wig") environment in which to display, enter, and edit your music. What you see on the computer screen will exactly match what you see on the printed page.

You have full editing capabilities directly on the page

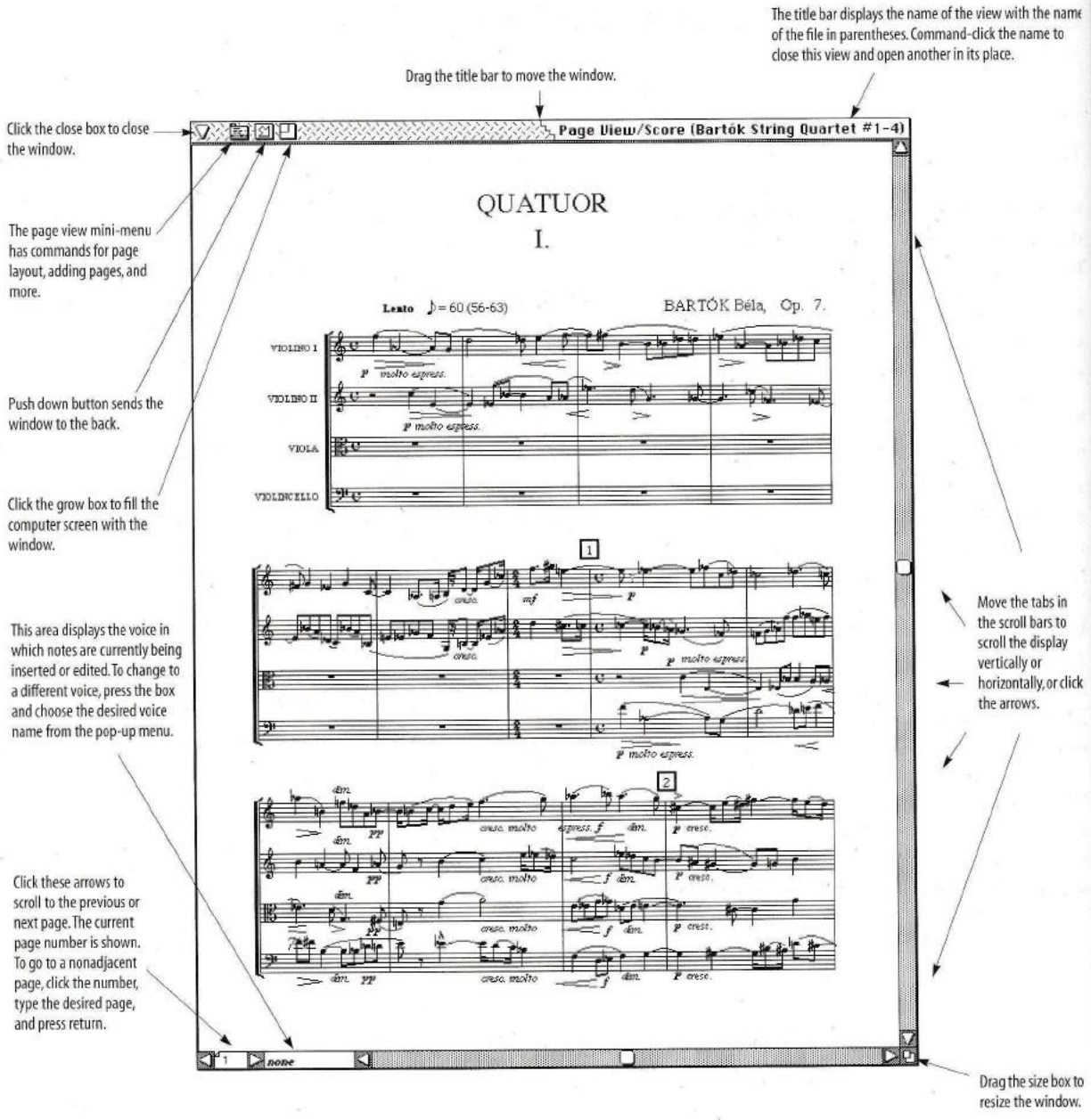
Mosaic provides full editing capability of the music in a page view. You can even control page layout characteristics such as the size of the page, the margins, the staff and system layout, the line and page breaks, and more--directly on the page.

Viewing pages one at a time

A page view can contain more than one page. In fact, it can contain as many pages as necessary to hold all of the music in your score. It displays each page in a score one at a time, and you can scroll to the previous page, next page, or any page. The page view is an ideal way to *paginate* the music--that is, to determine how the music flows from page to page and to determine where the page breaks occur.

Page view quick reference

Here are several important features you can use to control a page view:


The title bar displays the name of the view with the name of the file in parentheses. Command-click the name to close this view and open another in its place.
Drag the title bar to move the window.
Page View/Score (Bartók String Quartet #1-4)
Click the close box to close the window.
The page view mini-menu has commands for page layout, adding pages, and more.
Push down button sends the window to the back.
Click the grow box to fill the computer screen with the window.
This area displays the voice in which notes are currently being inserted or edited. To change to a different voice, press the box and choose the desired voice name from the pop-up menu.
Click these arrows to scroll to the previous or next page. The current page number is shown. To go to a nonadjacent page, click the number, type the desired page, and press return.
Move the tabs in the scroll bars to scroll the display vertically or horizontally, or click the arrows.
Drag the size box to resize the window.
QUATUOR
I.
BARTÓK Béla, Op. 7.
Lento ♩= 60 (56-63)
VIOLINO I
VIOLINO II
VIOLA
VIOLINCELLO
molto espress.
cresc.
none

WHAT IS A GALLEY VIEW?

A galley view is a window that displays music on a staff system that extends endlessly to the right. The staff system never "wraps around" to the next line as it does in a page view. It keeps extending to the right.

Like a page view, a galley view offers full editing capabilities, including the ability to modify layout characteristics such as the arrangement and spacing of the staves.

Editing large regions in a galley view

A galley view formats your music on a single, scrolling staff system, allowing you to see the music continuously on one system.

Galley views are ideal for editing large scores with many staves. A galley view is also ideal for observing and editing large regions of music that could not fit on a single page in a page view.

Printing music in a galley view

Unlike page views, a galley view cannot be printed. To print music in a galley view, you need to place the staves in a page view.

To place galley view staves in a page view:

1 Add a new page view.

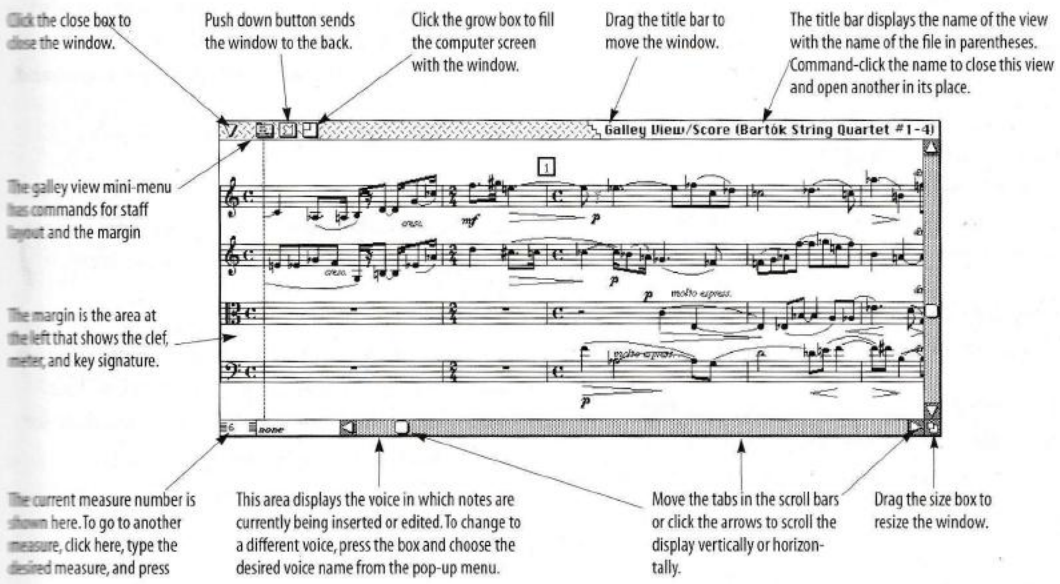
2 Drag the staves from the Staves window into the new page view.

3 Print the page view.

For detailed information about adding staves to a view, see "Displaying staves in a view" on page 36.

Galley view quick reference

Here are several important features you can use to control a galley view:



CREATING A VIEW

To create a page view or galley view:

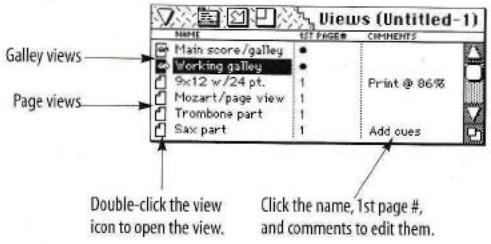
1 Choose Views from the Windows menu.

2 Choose Add page view or Add galley view from the Views window mini-menu.

The new view appears at the bottom of the list.

3 If desired, click the name to edit it.

Note that the view icons distinguish whether they are a page view or a galley view. A galley view icon contains the infinity symbol (∞), indicating that it scrolls indefinitely to the right:



Choosing a starting page number for a page view

To set the starting page number for a page view, type the number in the column next to its name. Galley views do not have page numbers.

OPENING A VIEW

To open a page view or galley view:

1 Choose Views from the Windows menu to open or activate the Views window.

2 Double-click the icon of the view you wish to open.

DISPLAYING STAVES IN A VIEW

After creating and opening a new view, you are presented with a blank page in which to begin your work. The first thing you need to do is create one or more staves (if you haven't done so already). Then you'll drop the staff (or staves) into the view window.

You can place a staff in a view at any time, even if a voice on the staff already contains music.

☛ In order to display and edit music on a staff, the staff must have at least one voice assigned to it.

For information about how to create staves and assigning voices to them, see chapter 4, "Voices and Staves".

Creating staves

To create one or more staves:

1 Open the Staves window by choosing it from the Windows menu.

2 Choose the "Add staff with voice" mini-menu command to add a staff.

This command adds a staff with a voice already assigned to it. If you wish to add several staves, press the option key while selecting the command.

3 If desired, name the staves and voices.

For complete information about naming voices and staves, including setting up their note range, staff transposition, see chapter 4, "Voices and Staves".

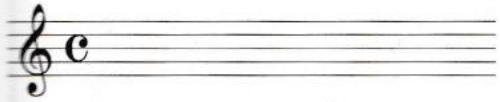
Once you have created one or more staves, you are ready to drop them into the view window. The following four sections provide the procedure for doing each of the following:

- Displaying a single staff in a galley view
- Displaying a single staff in a page view
- Displaying a staff system in a galley view
- Displaying a staff system in a page view

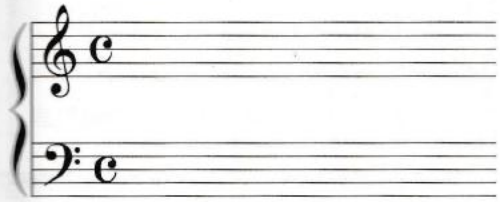
Understanding staff systems

When staves are dragged onto a page, they become part of a staff system. A staff system is a group of one or more staves. Here are some examples:

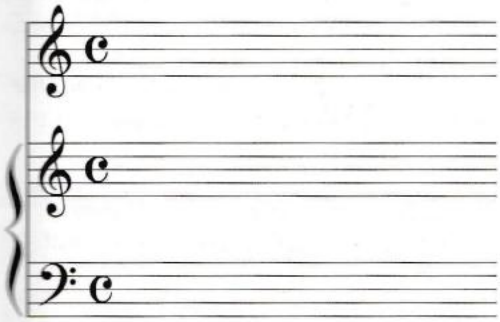
- A single staff system



- A piano staff system



- A piano/vocal staff system



- A choral staff system with soprano, alto, tenor, and bass staves (SATB)
- Forty staff orchestra score system

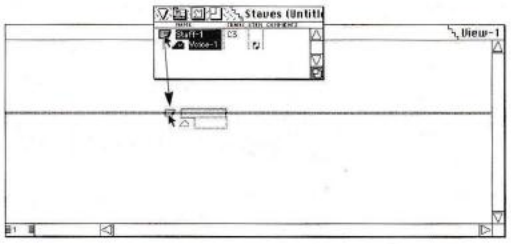
Displaying a single staff in a galley view

A galley view contains only one staff system, which extends indefinitely to the right. When more staves are added, they are added to that one system.

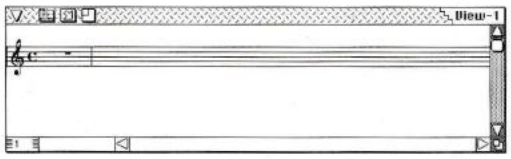
To display a single staff in a galley view:

1 Position the Staves window either next to or on top of the galley view window.

2 Grab the staff icon with the pointer and drag the staff icon anywhere on top of the empty galley view.



The result is a single staff that scrolls endlessly to the right.



3 To adjust the space above the staff, the size of the staff, or any other aspect of the staff layout, select Show Layout from the mini-menu and make the desired adjustments.

See chapter 23, "Controlling Page Layout" for details.

☛ When the view is placed in Show Layout mode, Mosaic temporarily suspends the editing of notes and other musical symbols. Only items having to do with page layout, such as staves, margins, and text can be moved.

Displaying a single staff in a page view

To add a single staff to a page view:

1 Position the Staves window either next to or on top of the page view window.

2 Grab the staff icon with the pointer and drag the staff icon anywhere on top of the empty page view window.

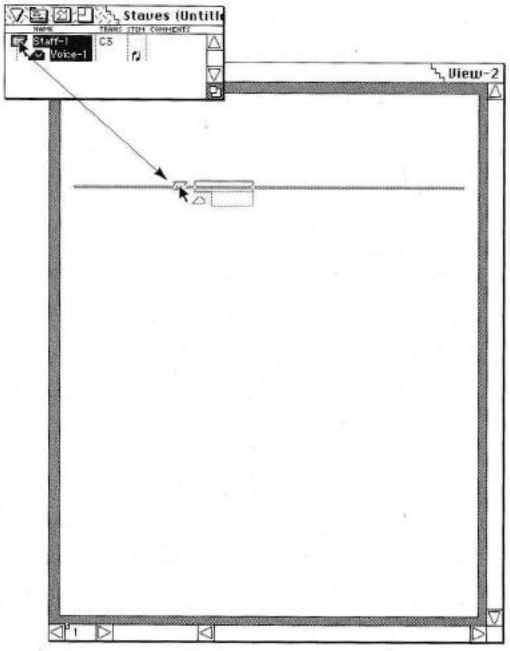
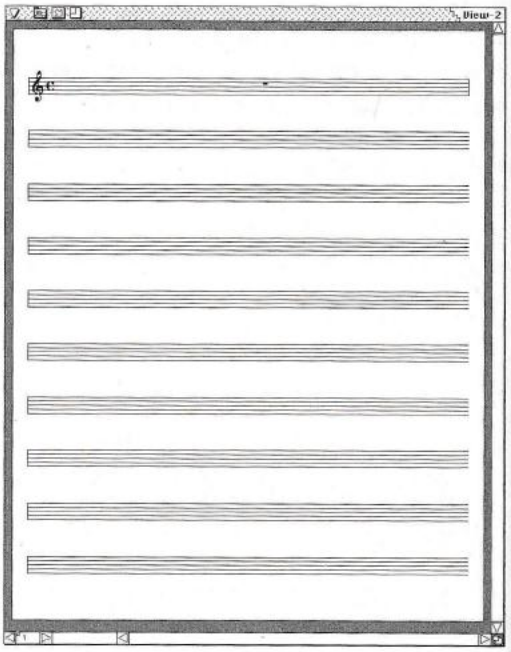


Figure 5-1: Adding a staff by dragging its icon from the Staves window into a view. Staves are added to page views and galley views in this fashion.

Notice that the staff repeats itself as many times as necessary to fill the entire page. If you don't want the staff to fill the page, hold down the option key while dragging the staff into the view.



3 To adjust the page margins, staff margins, staff spacing, number of staves on the page, or any other aspect of the staff layout, choose Show Layout from the mini-menu and make the desired adjustments.

In Show Layout mode, you can freely modify the staff layout. For details, see chapter 23, "Controlling Page Layout".

Displaying a staff system in a galley view

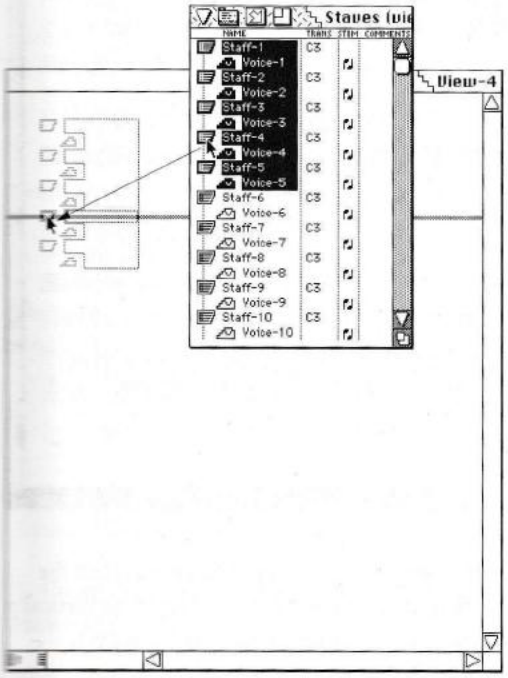
To add several staves to a galley view as a staff system:

1 Position the Staves window either next to or on top of the galley view window.

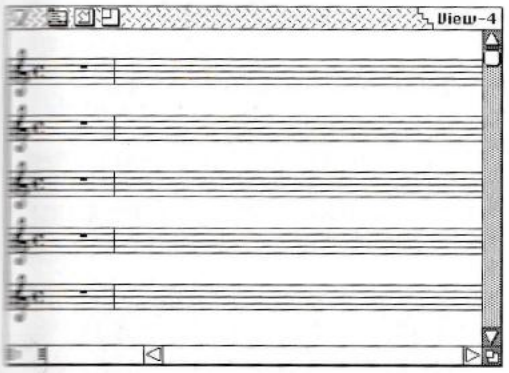
2 Select the staves you wish to add.

To select several adjacent staves in the list, hold down the shift key, click the staff icon of the first staff and drag downwards over the rest. To select several nonadjacent staves, shift-click the staff icon of each one.

3 To drop the selected staves into the galley view, drag the staff icon of any of the selected staves anywhere in the galley view.



The result is a staff system that scrolls endlessly to the right inside the galley view window.



4 To make adjustments to the staff sizes or spacing, choose Show Layout and make the desired changes.

For complete information about controlling staff layout, see chapter 23, "Controlling Page Layout".

Displaying a staff system in a page view

Below is an example of a piano score. The piano staff system, which consists of two staves, repeats five times to fill up the page. If a staff system has many staves, only one or two systems may fit on a page.

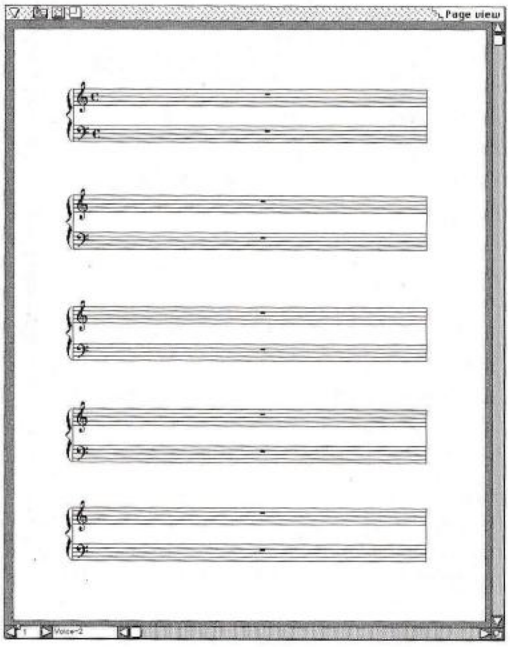


Figure 5-2: A piano staff system repeated five times on a page.

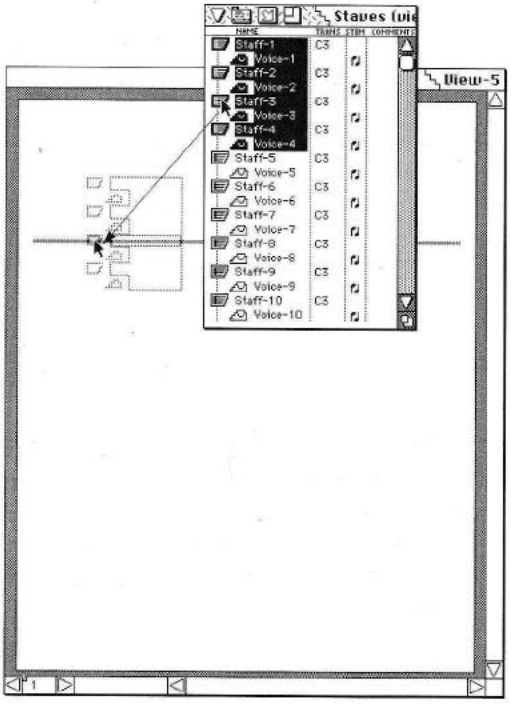
To display a staff system in a page view:

1 Position the Staves window either next to or on top of the page view window.

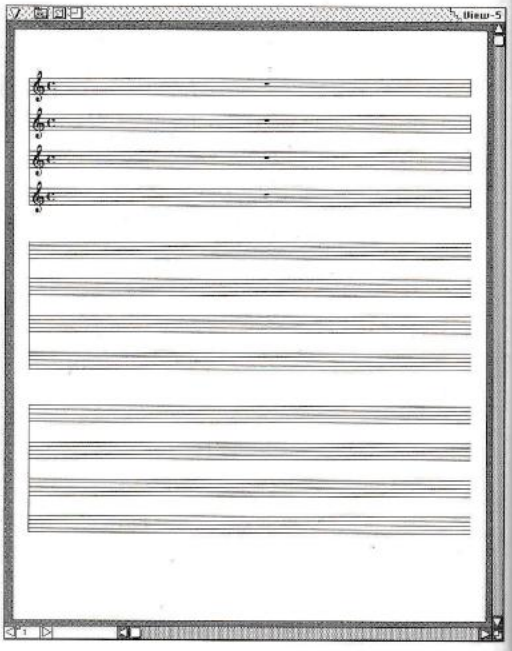
2 Select the staves you wish to add.

To select several adjacent staves in the list, hold down the shift key, click the staff icon of the first staff and drag downwards over the rests. To select several nonadjacent staves, shift-click the staff icon of each one.

3 Drag the staff icon of any of the selected staves anywhere in the page view to drop the selected staves onto the page.



The result is that Mosaic places as many systems as will fit on the page. If you wish to place only one staff system on the page, hold down the option key while clicking the staff icons to drag them.



4 To insert staff braces and brackets, select the brace or bracket palette symbol and drag vertically to the left of the staves you want to connect.

5 To adjust the margins, staff spacing, or any other aspect of the staff layout, choose Show Layout from the mini-menu and make the desired changes.

For complete information about editing staves, see chapter 23, "Controlling Page Layout".

ADDING PAGES TO A PAGE VIEW

To add pages to a page view:

1 If the page view already contains more than one page, scroll to the page where you wish to insert the new pages.

Pages are added either before or after the currently displayed page. Thus, you need to display the page before or after which you wish to insert the new pages. To scroll to the desired page, click the page

scroll arrows at the lower left-hand corner of the window, or click the page number between them, type the desired page number, and press return.

2 Choose Add pages from the view window mini-menu.

3 Type in the number of pages you wish to add.

4 Indicate whether the new pages are to be added before or after the current page.

5 Select a page layout template.

The page layout of the new pages can be based on the current page, a page layout template, or an entirely new page layout.

6 Click OK.

DELETING PAGES FROM A PAGE VIEW

To delete one or more pages from a page view:

1 Choose Delete page from the view window mini-menu.

2 Type in the range of pages that you wish to delete.

If you are deleting a single page, type that page's number in both text boxes. For example, to delete page 5, the page range would be from page 5 to page 5.

3 Click OK.

DISPLAYING A STAFF IN SEVERAL VIEWS AT ONCE

One of the most useful aspects of views is that the same staff can be displayed in several views at the same time, and it can be formatted differently in each view. In the example below, the Staff-4 is being displayed in three views at one time, as shown in Figure 5-3 on page 42.

Music is often displayed in more than one way. The most common example of this is instrument parts that are created from a conductor's score. The master score has all the instrument staves together in one large staff system. However, each instrumentalist's part consists of only one staff for their instrument.

Here are some other examples of why a staff might be displayed in several views:

- The staff is being used in instrument part, which consists of a single staff taken from a large multi-staff score.
- It is a cue staff, which consists of another instrument's staff appearing on an instrument part as a cue.
- You will print the music on different printers (say an ImageWriter at home and a laser printer at school or work), and you have created two separate views with a unique page layout for each printer.

Music on a staff can be edited in any view in which it appears. Changes to the notes and rests of any voice on the staff are automatically reflected on the staff in other views. For more information about what carries over to other views and what doesn't, see the next section.

EDITING THAT OCCURS ACROSS VIEWS

When you work with multiple views, you should be aware that editing that you do on many of the musical symbols will carry over to all other views. Some types of editing only affect the view in which you are working.

When you edit the following things, the changes you make will carry over to all views:

- Notes and rests
- Measure numbering. The measure numbering scheme remains the same for all views.

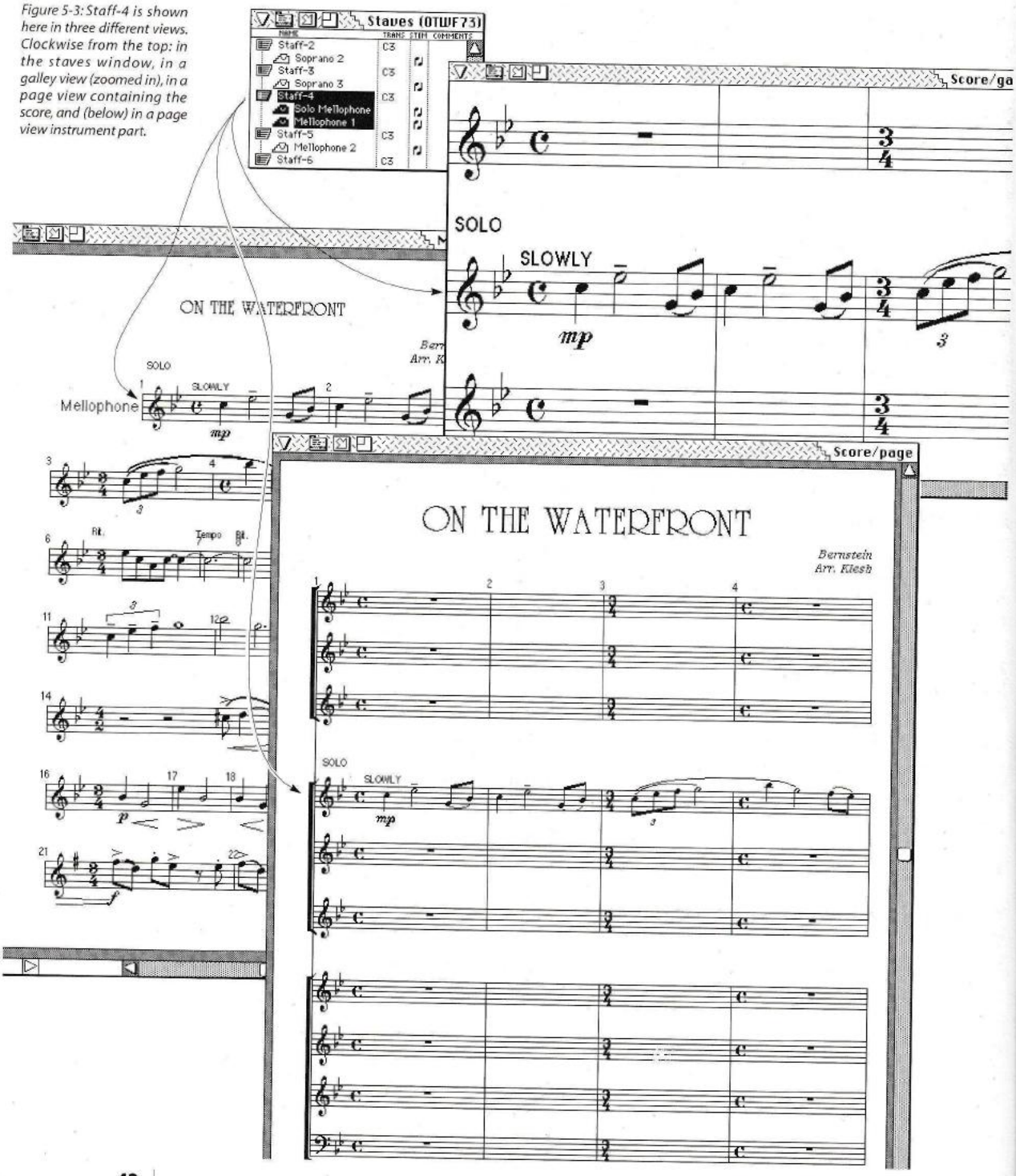


Figure 5-3: Staff-4 is shown here in three different views. Clockwise from the top: in the staves window, in a galley view (zoomed in), in a page view containing the score, and (below) in a page view instrument part.

- The clef, meter, or key signature of a staff. These context items appear in that staff regardless of the view.

- Barline types. For example, if you place a repeat barline between measures 4 and 5 in a score, it appears in all views between bars 4 and 5.

- System text. For information about system text, see "System text" on page 105.

- Anything that is specifically voice-related, such as voice text, slurs, ties, ornaments and articulations, jazz symbols, etc. These items appear with the voice in any view.

- Lyrics. Lyrics always appear below their voice.

EDITING THAT IS VIEW-SPECIFIC

The previous section discusses characteristics in your Mosaic file that occur across all views, such as the measure numbering scheme.

There are many characteristics that are view-specific--that is, they only occur in the view in which you insert, edit, set, change, etc. them.

View-specific characteristics include:

- The page layout. This includes which staves are displayed, the arrangement of staves, size of page, margins, staff connections, barline connections, etc.

- The zoom level. For example, you can zoom one view in to 400% and zoom another out to 50%.

- Page text, such as a title, header or footer, staff names, etc.

- Line breaking and page breaking.

- Measure spacing. This allows you to modify the measure spacing in a view without affecting the measure spacing in other views.

- Staff sizing. This allows the same staff to be displayed at different point sizes in different views. For example, you might display the piccolo part as a miniature cue staff in the French horn part, while displaying it in full size in the main score.

- Rest consolidating. This refers to whether or not multiple measures of rests are grouped together.

These view-specific characteristics provide a great deal of flexibility in the way that you can observe, edit, and print out your music.

CREATING INSTRUMENT PART VIEWS

When you create a score view in Mosaic, you can also create a separate instrument part view for each instrument in the score.

For more information, see chapter 26, "Creating Instrument Parts".

ZOOMING

The display of music in each view can be reduced or enlarged--"zoomed"--by a percentage. You can change the display by choosing the desired percent from the view window mini-menu. The higher the percentage, the larger the display. You can step upwards through percentages by pressing command-] (close bracket) or downwards by pressing command-[(open bracket).

Enlarging the display gives you a close-up view of the music for fine tuning. Reducing the display gives you a bird's-eye view of the music. Zooming out is useful for selecting large region of music by dragging a selection box over the region. You'll also find it useful to zoom out when you are editing the page layout.

Editing can be done at any zoom level.

TIPS FOR USING VIEWS

Here are some tips you might find helpful when using View windows.

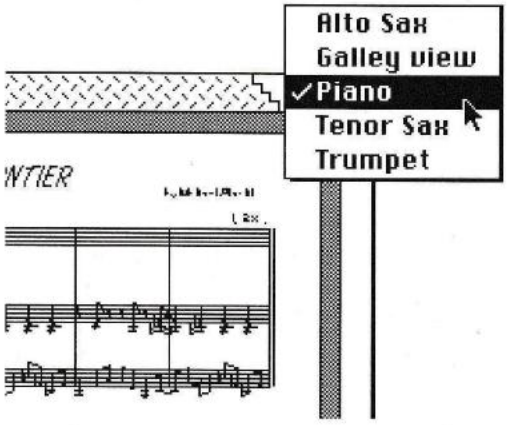
- To increase Mosaic's responsiveness, close as many view windows as possible. Only leave open the ones you really need at the moment.

- You can open several view windows at the same time to copy and paste between them, cross-check them, etc.

- Zoom out and reduce the view window size when you are dealing with page layout control. Doing so gives you a bird's-eye view of the entire page.

Switching to another view in the same window

Even though Mosaic allows you to have as many view windows open at a time as you prefer, there is a time-saving shortcut for switching to a different view: hold down the command key, click the name of the current view in the title bar of its window, and choose the desired view from the pop-up menu as shown below. In the pop-up menu, the current view appears with check mark next to its name.



CHAPTER 6 Creating a New File with New Setup

The New Setup command is very useful when you are first setting up a new manuscript. It lets you select the instruments you want from a list of standard instruments. It then creates a new file and automatically generates all the voices, staves and views, including:

- A voice and staff for each instrument with proper voice range and staff transposition, if applicable
- A page view and galley view for the full score
- A page view for each individual instrument part

In addition, the New Setup command automatically formats the views to your specifications. Here is a summary:

- Each page view is laid out with a title page and body page
- Each title page includes a title, composer, and initial metronome marking in any font you prefer.
- Transposed staves are used as needed in instrument parts for transposing instruments.
- The score page view includes staff names.
- The staff size for the score page view is optimized based on the number of staves in the score.
- Instrument part views are generated with 24-point staves.
- Page templates are generated in the Templates window for the score title page, score body page, part title page, and part body page.

The voices, staves, and views created by this command are identical to the ones you can create manually in the Voices, Staves and Views windows. This command simply generates them automatically for you.

Using New Setup

To create a new file using New Setup:

1 Choose New Setup from the File menu.

The New Setup dialog box appears.

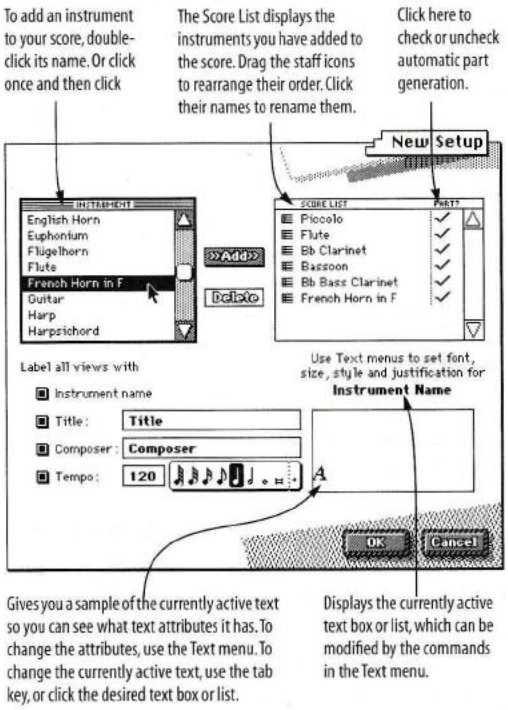


Figure 6-1: The New Setup dialog box automatically generates the entire score for you, including individual instrument part views.

2 Make the settings as desired and click OK to confirm your choice.

See the remaining sections in this chapter for detailed information about making the settings in this dialog box.

Working with the instrument and score lists

To indicate what instruments you would like to add to your composition, select instruments from the instrument list on the left and add them to the score list on the right. Here is a summary of how to do so.

To do this:	Do this:
To add an instrument to the score list	Click its name in the list on the left to select it, and click the Add button. The instrument then appears in the score list on the right. Alternately, you can double-click the instrument name or press the right arrow key.
To add an instrument that is not present in the instrument list	Add a generic clef instrument that is appropriate for the instrument you want to add (e.g. a Treble Clef staff) and then rename the instrument in the score list (see below)
To rename an item in the score list	Click its name in the score list. (The score list is on the right; names can be edited in the score list. The instrument list is on the left; names cannot be edited in it.)
To remove an instrument from the score list	Click its staff icon in the score list on the right and click the Delete button. Its name disappears from the score list.
To prevent a part view from being generated for an instrument	Uncheck the part column to the right of the instrument name in the score list.
To arrange the order of the instruments in the score	Drag the instruments up and down in the score list by dragging their staff icons.

Adding an instrument that is not in the list

If you would like to add an instrument to your score that is not in the instrument list, add an existing instrument that has the same clef and transposition. You can then change the name of the instrument after you add it to the score list by clicking its name in the score list. The score and part view will be generated using the new name. You can always change the name later, after the score and part views are generated, but it is most convenient to change it beforehand because you only have to change it in one place instead of several.

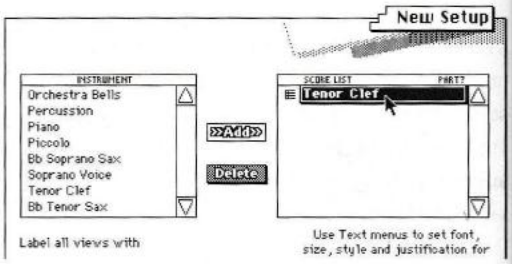


Figure 6-2: Click the name of an instrument in the score list to change the name.

Including text labels

The New Setup command gives you the option of including the following text labels in the views it generates:

- Title
- Composer
- Tempo marking
- Instrument name (in part views)
- Staff names in the main score

To include a text label, check its box as shown in Figure 6-1 on page 45, and type in the desired text for the title, composer and tempo marking. For a sample of each text label, see Figure 6-3 on page 47.

The text labels generated are standard page text boxes, so they can be freely edited. For complete information about page text, see chapter 15, "Text".

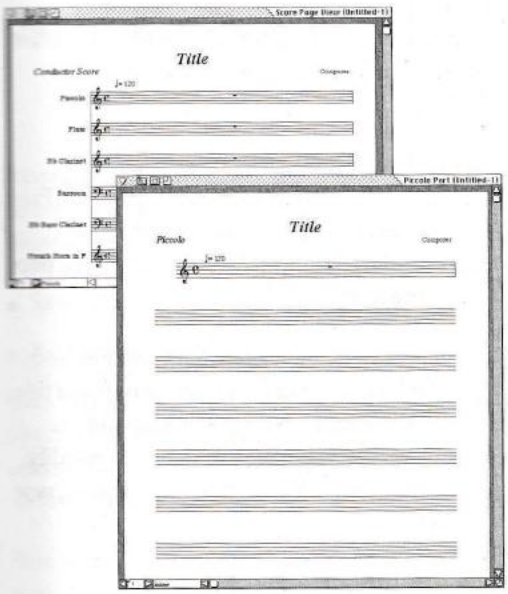


Figure 6-3: Text labels in a score view and instrument part view generated by the New Setup command. In addition to specifying what the text will be, you can also specify the font, size, style, and justification separately for each label.

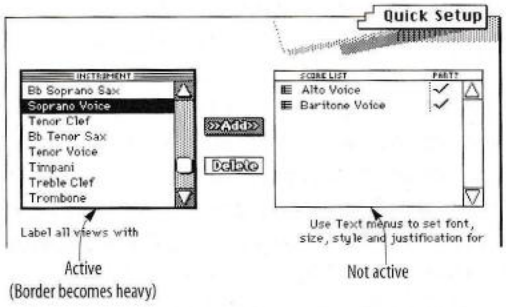


Figure 6-4: To make the instrument list or score list active, click it.

Setting the font, size, and style of text labels

The New Setup dialog box lets you individually set the font characteristics for each text label using the Text menu. To set the font characteristics for a text label:

1 Make the text box, instrument list, or score list active.

To make a text box active, click on it so that the cursor appears inside the text box. To make the instrument list or score list active, click inside the list (see Figure 6-4 below). To cycle through all available text labels and both lists, press the tab key (or shift-tab) repeatedly. The name of the currently active text label appears in bold type above the display area (see Figure 6-1 on page 45).

2 To determine the text attributes of the currently active text label or list, observe the sample text inside the display area, or use the Text menu to see what text attributes are currently checked in the menu.

3 To change the text of the currently active text box or list, choose the desired font, point size, style, and justification from the Text menu.

For your convenience, the display area in the dialog shows the text settings for the currently activated text or list item. As you change the settings in the Text menu, the sample text in the display area updates to show you what has been chosen.

Using the keyboard to get around the New Setup dialog

While you are working in the New Setup dialog, here are some keyboard shortcuts you can use:

To do this:	Type this:
To move to (activate) the next or previous text box	Tab or shift-tab
To activate the instrument lists	Tab or shift-tab
To select an instrument from the list	Activate the list and type the first letter of the name
To select the next or previous instrument in the list	Up arrow or down arrow
To add an instrument to your new composition	Command-tab or the right arrow key

The new file can be easily modified

Quick Setup helps you save time and get started quickly. When you click OK, it does most of the work for you in setting up a new file. You may find, however, that you would like to make adjustments to the voices, staves, views, and page layouts in the newly created file. Just remember that you can easily modify anything. For complete information, review chapter 4, "Voices and Staves", chapter 5, "Page Views and Galley Views", chapter 15, "Text", and chapter 23, "Controlling Page Layout".

Entering notes into the newly created views

The page and galley views generated by the New Setup command are ready for note entry, and they provide 16 blank measures to help you get started. If you plan to start entering notes from the beginning of the score, Mosaic automatically creates new measures as you insert notes (based on the current meter). If you won't necessarily start entering notes at the beginning of the score, you will need empty measures in which to enter notes. You can add any number of empty measures using the Set Score Length command in the Edit menu. For more information, see "Using Set Score Length" on page 77.

Adjusting the page layout of the new views

Mosaic provides you with complete control over the formatting of the pages generated by the New Setup command. To insert staff braces and brackets, select the brace or bracket palette symbol and drag vertically to the left of the staves you want to connect. To adjust the margins, staff spacing, or any other aspect of the staff layout, choose Show Layout from the mini-menu and make the desired changes. For complete information about editing staves, see chapter 23, "Controlling Page Layout".

Creating a transposed score

The New Setup command produces a concert score. If you have transposing instruments in your composition, and you want a transposed score, you can easily replace the concert staves in the score view with the transposed staves that were generated for the parts. For information about how to replace staves in a view, see Figure 26-2 on page 174.

Adding more pages to the view

To add more pages to a page view, use the Add Page command in the Page view mini-menu. For complete information, see "Adding pages to a page view" on page 40.

Each view is given both a title page and one body page. The body page has a header instead of a title. You can add as many body pages based on the original one as you like. You may want to modify the layout of the body page before generating new ones.

CHAPTER 7 Undo and Redo

Mosaic has two powerful commands in the Edit menu: Undo and Redo. Together, these commands allow you to:

- Save time
- Experiment more

Even if you are familiar with the standard Macintosh "previous action only" Undo, you'll consider Mosaic's unlimited Undo and Redo a savior.

Here is how Mosaic's Undo and Redo commands work.

UNLIMITED UNDO

Undo "takes back" whatever you just did. It could be that you added a staff, deleted a staccato, inserted some notes, moved a slur, or anything. Choosing Undo from the Edit menu (command-Z) undoes the most recent action that you took.

Undo is useful when you do something by accident. For example, let's say that you try to select a note to add an accidental, but you accidentally drag the note a little bit to the left so that it is now out of position. Rather than dragging it back and tediously trying to line it up again with the other notes, simply choose Undo. It will pop back to its original position as if it had never moved.

Undo is also useful if you don't like what you have done. Remember, you can undo just about everything in Mosaic.

You don't have to stop after using Undo just once, however. Undo is unlimited. Mosaic remembers every action you take from the moment you open a file. You can work for half an hour, do a hundred things, and Mosaic will remember every one of them. You could then choose Undo a hundred times and undo the half hour's worth of work. Unlimited undo gives you freedom to experiment.

UNLIMITED REDO

The Redo command ungreys immediately after you use Undo for the first time. Redo lets you put back the action that was removed by Undo. (Here's another way to look at it: Redo is an "undo" for the Undo command.)

USING UNDO AND REDO TOGETHER

You can use Undo and Redo together to go backwards and forwards through a series of actions. For example, let's say that you change your mind while working and decide to backtrack. You repeatedly choose Undo--and suddenly realize that you went too far back. You can then choose Redo a few times to go forward again until you zero in on the point at which you would like to continue.

Undo and Redo help you easily compare different ideas, even if the differences consist of many command strokes. For example, you could experiment with intricate formatting designs and always be assured of getting back to the original. You can use Undo and Redo repeatedly to compare the two versions of the file.

USING UNDO AND REDO WITH THE CLIPBOARD

Undo and Redo do not affect the contents of the Clipboard. This allows you to retrieve something that you did previously in a session. For example, say that you decide to retrace your steps, undo several times, and proceed in a different direction. Then, you change your mind and decide that you would like to keep what you had done previously.

Depending on what it is, you might be able to retrieve it simply by undoing back to the original point where you changed your mind, copying what you want into the Clipboard, and redoing forward again up to the current point and then pasting.

CHAPTER 8 Notes and Rests

This chapter explains how to enter the following symbols with the mouse and Macintosh keyboard:

- Notes, dotted notes, rests, and grace notes
- Accidentals
- Chords

In addition, this chapter explains how to:

- Add a dot to an existing note
- Adjust the position of notes, rests, dots, and accidentals
- Adjust stem lengths and beam angles
- Change the duration of notes and rests
- Control the spacing of notes and rests

To enter notes via MIDI, see chapter 34, "MIDI Recording and Playback".

ENTERING A NOTE, REST, OR CHORD WITH THE MOUSE

Entering notes with the mouse is straightforward: you basically point and click. The following sections explain how to enter notes, rests, dots, accidentals, and chords with the mouse.

☛ Before working with notes and rests, be sure the *Show Layout* command is unchecked in the View window mini-menu. When it is checked, you can't enter or edit notes, rests, and other symbols.

☛ The keystrokes described in this chapter are the Mosaic default keystrokes. If you get results other than what is described here, the keystrokes may have been changed. To restore the default Mosaic keystrokes, see Appendix D, "Customizing Mosaic's Key Bindings".

Selecting a voice on a staff with multiple voices

If you are entering a symbol on a staff that contains more than one voice, you need to select the voice before you click the staff. See "Entering notes and rests" on page 175 in chapter 27, "Working With Multiple Voices on a Staff".

Entering a note or rest

To enter a note or rest with the mouse:

1 Open the note or rest palette by choosing it from the Palettes menu.

2 Click the desired note duration.

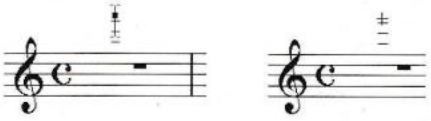
The arrow turns into a cross hair, indicating that when you click the mouse, a note will be inserted.

3 Click the staff at the desired location and, if entering a note, the desired pitch.

You can keep clicking as many times as desired. To change the duration, click a different duration in the palette.

Ledger line guides appear during note entry

If you enter notes above or below the staff, ledger line guides appear to help guide you during note entry with the mouse or keyboard. These guides help you determine exactly what pitch you will enter.

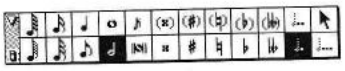


Entering a dotted note or rest

To enter a dotted note or rest with the mouse:

1 Click the desired duration in the note or rest palette.

2 Click the dot symbol (as shown to the left) in the palette.



3 Click the staff at the desired location and, if entering a note, the desired pitch.

Adding a dot to an existing note or rest

To add a dot to an existing note or rest using the mouse:

1 Click the dot symbol in either palette.

You can choose the dot symbol from either the note or rest palette. It doesn't matter which.

2 Click the notehead or rest, or click just to the right of it.

Adding an accidental

To enter an accidental (sharp, flat, natural, etc.) with the mouse:

1 Click the desired accidental symbol in the note palette.

2 Click near the notehead as shown in Figure 8-1 to enter the accidental.

Figure 8-1: Clicking to enter an accidental. Mosaic is forgiving and lets you click anywhere near the notehead, as shown here by the dashed box.

Mosaic is forgiving about exactly where you click. As long as you click in the general vicinity of the notehead as shown in Figure 8-1, the accidental will be entered successfully. If you are adding an accidental to a note in a chord, and the notes are clustered tightly together, you may want to use the Macintosh keyboard to enter the accidental for greater accuracy. See "Working with accidentals" on page 56.

To adjust the position of the accidental, drag it with the mouse.

Building a chord

To add a note to a chord with the mouse:

1 Click the duration in the palette that matches the duration of the note(s) already in the chord.

2 Click directly above or below the existing note.

The new note is added to the same stem as the existing note. If necessary, Mosaic will automatically flip the stem. If you accidentally click too far to the left or right, the note won't get entered on the same stem. Don't worry. Just choose Undo (command-Z) from the Edit menu and try again.

If you choose a different duration than the existing note(s) in the chord, Mosaic enters the note at the same beat location, but the note is placed on a separate stem. See the next section.

Entering notes of different duration on the same beat

Mosaic allows you to enter poly-rhythmic figures on a staff. They can be entered in the same voice, or into separate voices.

If the rhythms separate for a brief phrase (a few notes), enter them in the same voice.

If the rhythms separate for an extended period, create a second voice on the staff and enter the separated rhythms in the second voice. See "Assigning several voices to a single staff" on page 29. Also see chapter 27, "Working With Multiple Voices on a Staff".

To enter two or more notes (or rests) of different durations on the same beat in the same voice:

1 Click the desired duration in the note palette.

2 Click to enter the first note or rest.

3 Click a different duration in the note palette.

4 Click directly above or below the existing note at the desired pitch.

Entering a grace note

See "Working with grace notes" on page 59.

Summary

Here is a summary of the ways in which you can enter notes and rests with the mouse.

To add this:	Do this:
A note or rest	Click the note or rest in the palette and click the staff
A dotted note or rest	Click the note or rest in the palette, click the dot in the palette, and then click the staff
A grace note	Click the desired duration and the grace note symbol in the palette, and then click the staff
An accidental	Click the desired accidental in the palette and then click to the left or on top of the note
A dot, double-dot, or triple dot	Click the desired dot in the palette and click the notehead or rest, or click to the right of it
The second, third, fourth, etc. note of a chord	Click directly above or below the existing note

☛ Note: the dot will remain highlighted until you select another duration.

ENTERING A NOTE, REST, OR CHORD USING THE KEYBOARD

This section describes how to type note, rests, and chords using the Macintosh keyboard. Here are the basic steps to enter notes:

1. Choose where to insert

2. Choose a duration (with or without a dot)

3. Insert the note or rest, or several notes to build a chord

☛ The keystrokes described in this section are the Mosaic default keystrokes. If you get results other than what is described here, the keystrokes may have been changed. To restore the default Mosaic keystrokes, see Appendix D, "Customizing Mosaic's Key Bindings".

Choosing where to insert

To enter notes using the Macintosh keyboard, position the insertion cursor in the staff at the desired location. The insertion cursor is a small vertical bar with a pitch indicator as shown below in Figure 8-2.

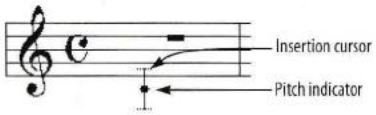


Figure 8-2. The insertion cursor consists of a small vertical bar with a pitch indicator. The insertion cursor determines where the next note will be entered from the keyboard. Here the insertion point will enter a middle C.

Using the cursor

The insertion cursor determines four things about the note being inserted:

1. Which voice on the staff the note will be inserted into. Since a staff can contain more than once voice, the insertion cursor determines the voice. See "Switching the insertion cursor to a different voice or staff" on page 54.

2. The beat location in the measure: at the beginning, at the end, in-between other notes, or on the same beat as an existing note. Use the left/right arrow keys to move to the desired beat.

3. The pitch of the note. Use the up/down arrow keys to move to the desired pitch.

4. The cursor octave range. The top and bottom of the insertion cursor are octave boundaries. If you type a letter between A and G, the cursor will jump to that pitch within the octave prescribed by the insertion cursor. To change to a different octave, hold down the shift key and press the up/down arrow keys before typing the pitch letter.

Placing the insertion cursor on a staff

To place the insertion cursor on a staff when entering a note:

1 Click the arrow cursor at (or near) the desired spot on the staff.

When you click on a staff to place the insertion cursor, you are actually placing it in a voice on the staff. Mosaic displays this voice in the horizontal scroll bar at the bottom of the view window as shown below:

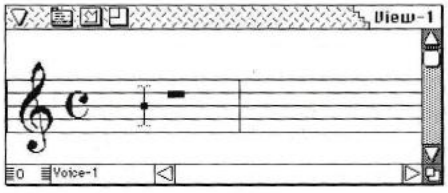


Figure 8-3: The current voice.

☛ Please note! If you try to enter a note on a staff that does not have a voice assigned to it, Mosaic warns you that you need to assign a voice first. See "Assigning voices to staves" on page 29.

2 If necessary, move the insertion cursor with the arrow keys.

Switching the insertion cursor to a different voice or staff

Most of the time, a staff has only one voice assigned to it. When you click the staff, the cursor will be placed in the voice and you are ready to enter notes. However, if you have more than one voice in the staff, when you click the staff to place the insertion point, Mosaic places it by default in the top voice (listed first beneath the staff in the Staves window).

There are two different ways to select a voice. One way is to hold down the command key and press the up or down arrow keys.

To select a voice using the command key:

1 Place the insertion cursor at the staff location where you would like to enter the notes, or press command-up arrow or command-down arrow to switch to the desired voice.

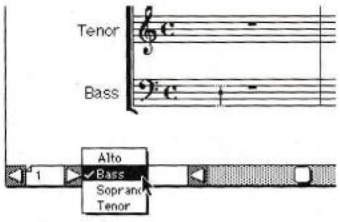
Keep pressing until you see the desired voice at the bottom of the window as shown in Figure 8-3 above.

2 Once you have selected the desired voice, start entering notes.

The other way to select a voice is to press the voice indicator box and choose the name of the desired voice from the pop-up menu provided:

3 Click the Voice indicator box and choose the name of the desired voice from the pop-up menu.

The cursor jumps to that voice.



Use this procedure to move the insertion cursor to a voice on a staff above or below the current staff.

Moving the insertion cursor

Here is a summary of ways to move the cursor:

To move the insertion cursor:	Do This:
Left or right within a measure	Press the left/right arrow keys
Up or down one line or space	Press the up/down arrow keys
To the next or previous measure	Press control and the left/right arrow keys
Up or down one octave	Press shift (or option) and the up/down arrow keys
To any pitch (A through G) within the current octave	Type the desired letter
To any pitch in a different octave	Press shift (or option) and the up/down arrow keys to move to the desired octave and then press the desired pitch
To a different voice (either on the same staff or a different one)	Press command and the up/down arrow keys
To a staff above or below the current staff	Press command and the up/down arrow keys or choose the desired voice from the voice indicator pop-up menu.

Setting the duration

Once you've placed the insertion point, you are ready to select a duration.

To set a duration:

1 Press either the open bracket ([ ) key or the close bracket ( ]) key.

If the note palette is not already open, this will open it and select the duration of a quarter note. If it is already open, see step 2.

2 Press the open bracket key ([ ) to select a lower duration; press the close bracket key ( ]) to choose a higher duration.

The duration you select will highlight in the palette. You can continue to cycle through the durations as needed.

Setting a dotted duration

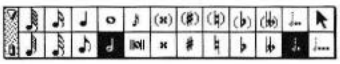
To set a dotted duration:

1 Press the open bracket ([ ) or close bracket ( ]) keys to select the desired base duration.

2 Press the decimal key or period key (.) once for a single dot.

To select a double-dot, press option-decimal or option-period. To select a triple dot, press command-option-decimal or command-option-period.

Notice that this highlights the appropriate dot in the palette, along with the base duration.



☛ Note: the dot will remain highlighted until you select a different note duration. You can deselect it by pressing the decimal key.

Entering a note, rest, or chord

Once you have placed the insertion cursor and set the duration, you're ready to enter a note, rest, or chord. Below is a summary.

☛ You can use either the main keyboard or the keypad on an extended keyboard to speed up entry.

To enter:	Do this:
A note with no accidental	Press return
A note with natural	Type an equals sign (=)
A note with a flat	Type a minus sign (-)
A note with a sharp	Type a plus sign (+)
A note with a double flat	Type a slash (/)
A note with a double sharp	Type an asterisk (*)
A dotted note	Press the period or decimal key and then return

A double-dotted or triple-dotted note	Select the desired note duration and click the double-dot or triple-dot palette symbol
A dotted note with an accidental	Press the period or decimal key, enter, and then the appropriate accidental note key
The first note of a chord	Press enter
The second, third, fourth, etc. note of a chord	Press enter
A note on the same beat with a different duration	Position the insertion cursor on the desired beat/pitch and press enter or return
A rest	Press the space bar
A dotted rest	Press the period or decimal key and then the space bar

☛ Note: the dot will remain highlighted until you choose a different duration or deselect it. To do so, press the dot key again.

Notice that the cursor advances when you press return:

But when you press *enter*, the cursor remains at the same beat location so that you can enter a chord.

WORKING WITH ACCIDENTALS

The following sections describe several ways to enter and edit accidentals.

Adding an accidental to an existing note

To add an accidental to a note that is already entered, use the arrow keys to position the insertion cursor on top of the notehead, or click the notehead to highlight it as shown:

 OR 

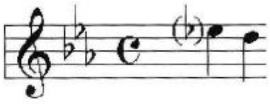
Once you have done so, press one of the same keys as mentioned above to add the desired accidental.

To add:	Do this:
A sharp	Type a plus sign, or press the plus (+) key on the keypad
A flat	Type a minus sign or the minus (-) key on the keypad
A double sharp	Type an asterisk (*) or press the asterisk key on the keypad
A double flat	Type a slash (/) or press the slash key on the keypad
A natural	Type an equal sign (=) or press the equal key on the keypad

These keys are the same ones as you use to enter a note. If the insertion cursor is not placed precisely on the notehead, you may mistakenly enter another note, instead of just the accidental. Just choose Undo and try again.

To enter an accidental with the mouse, see "Adding an accidental" on page 52 in this chapter.

Entering a courtesy accidental



A courtesy accidental is a sharp, flat, natural, etc. placed in front of a note that doesn't really need it: the note is already accidentalized by one earlier in the measure or by the key signature. It is added to the note as a reminder. It can be displayed with or without parentheses:

To add a courtesy accidental with parentheses to an existing note:

1 Click the desired courtesy accidental from the notes palette.

2 Click the desired note.

To add a courtesy accidental without parentheses to an existing note, see "Adding an accidental to an existing note" on page 56.

Flipping a note to its enharmonic equivalent

To change a note to its enharmonic equivalent spelling:

1 Select one or more notes.

2 Choose Flip Enharmonic from the Region menu.

The spelling of each note changes to its enharmonic equivalent.

MOVING A NOTE OR REST

After you have entered notes and rests, you may wish to "tweak" their left-to-right position in the measure. Or perhaps you accidentally entered the wrong pitch and wish to move the note to the correct pitch. Or perhaps you need to move a rest out of the way of a note in another voice on the staff.

Dragging left or right

To move a note or rest to the left or right, drag it with the arrow cursor.

☛ Please note! When dragging a note left or right, Mosaic does not let you drag past a note or barline. If you wish to change the order of the notes, use cut and paste. See chapter 18, "Edit Commands".

Dragging up or down

To move a note or rest vertically, drag it up or down with the arrow cursor.

Dragging notes in this fashion produces the same results as if you performed a diatonic transposition with the Transpose command in the Region menu. See "Transposing diatonically by dragging notes" on page 139.

DELETING NOTES AND RESTS

Notes and rests can be deleted several ways.

- Select the note or rest and choose Cut, Erase, or Snip from the Edit menu.
- Select the note or rest and press the delete key.
- Place the insertion cursor to the right of the note or rest and press the delete key.

ADJUSTING AN ACCIDENTAL

Sometimes you may need to adjust the position of an accidental. With the arrow cursor, drag the accidental left or right to the desired position.

DELETING A DOT OR ACCIDENTAL

To remove a dot or accidental:

1 Click the dot or accidental with the arrow cursor to select it.

2 Press delete, or choose Cut or Erase from the Edit menu.

CHANGING THE DURATION OF NOTES AND RESTS

The durations of notes and rests can be easily changed in the following ways:

To change the duration of this:	Do this:
A single note or rest	Click the desired duration in the notes (or rests) palette and click the notehead of the note you wish to change.
Several (many) notes or rests all at once	Select the notes and then apply the desired duration in the notes or rests palette by command-clicking the desired item in the palette.
To double or halve the duration of one or more notes or rests	Select the notes and then choose Double Durations or Halve Durations from the Region menu.

When you change durations, Mosaic is not picky about whether you are dealing with notes or rests. For example, you can select both notes and rests at the same time and change their duration from the

notes palette. (Mosaic won't change the rests into notes; it will just change the rest into the equivalent duration of the note you select in the palette.)

ADJUSTING STEM LENGTH

Mosaic gives notes the proper stem length and direction to each note. For example, the stems on notes in ledger lines above or below the staff extend to the center line on the staff.

You may find, however, that there are times when you need to adjust the stem length, such as to avoid a collision with another symbol or text.

Adjusting the stem of single note

To adjust the stem length of a note:

1 Click the stem of the note.

A handle appears at the end of the stem.

2 Drag the handle that appears at the end of the stem.

Adjusting the stems of beamed notes

To adjust the length of beamed notes, drag the beam up or down as shown below:

Adjusting the beam angle

To adjust the angle of a beam:

1 Click the beam.

Handles appear at either end of the beam.

2 Drag either handle up or down.

For more information about working with beams, see chapter 9, "Beams".

HIDING STEMS

The Hide Stems in the Format menu command removes stems from the currently selected notes. The Re-stem command brings back the hidden stems.

To use these two commands, select the notes (see "Selecting what you want to edit" on page 131), and choose either Hide Stems or Re-stem from the Format menu.

The Hide Stems feature is ideal for TAB (tablature) and chord slashes.

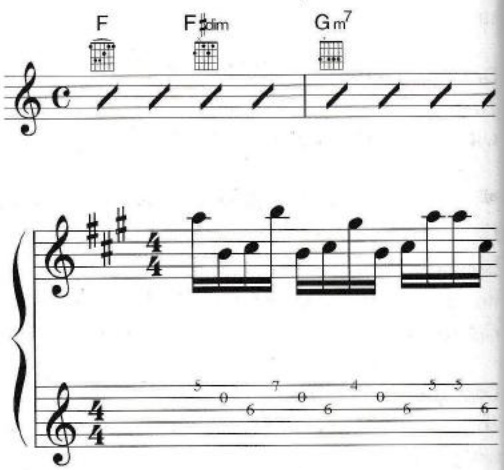


Figure 8-4: Hiding stems in rhythm slashes and tablature.

HIDING RESTS

The Invisify Rests command in the Format menu hides rests. This includes the whole rest that automatically appears in empty measures. Hidden

rests appear greyed out on the computer screen to indicate their presence to you; however, they are completely hidden when the view is printed.

To hide one or more rests, select them and choose Invisify Rests from the Format menu. Once invisified, rests appear grey on the computer screen to indicate that they are invisified and will not print. To make rests visible again, select them and choose Show Rests from the same menu.

Hidden rests can be useful in many situations. Here are a few examples:

- To hide unwanted divisi part rests.
- To hide the default whole rest that appears in empty measures to make the measures completely blank.
- To make completely blank manuscript paper by hiding the default whole rests in the empty measures that you lay out on the page.

Working with empty measure whole rests

For convenience, Mosaic automatically places a whole rest in empty measures. This empty-measure whole rest is both similar and different from the whole rest you enter from the Rests palette. The most notable difference is that it cannot be removed. It remains in the measure as long as there are no notes or rests in the measure. As soon as you enter a note or rest in the measure, however, it automatically disappears.

Even though empty-measure whole rests cannot be removed, they can be hidden with the Invisify Rests command. When they are invisified, they appear greyed out on the computer screen, and they do not appear at all in print, resulting in a completely blank measure.

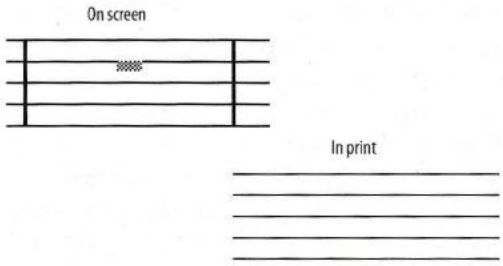


Figure 8-5: An invisified empty-measure whole rest.

With regard to editing, the empty-measure whole rest acts much like a regular whole rest. For example, it can be selected, cut, copied, and pasted, either by itself or selected together with other music. The only exception is with the Cut command. Normally, when you cut something, it is removed and placed on the Clipboard. Empty-measure whole rests get placed on the Clipboard by the Cut command, but they are not removed from the measure. If you want to remove them, use the Invisify Rests commands mentioned above.

Empty-measure whole rests differ from regular whole rests in another way. Text, dots (for dotted durations), and other symbols cannot be attached to them.

USING SPECIAL NOTEHEADS

Mosaic provides a host of different noteheads that you can use instead of a regular notehead, including a slash notehead for chord symbols.

For complete information about noteheads, see chapter 25, "Using Special Noteheads".

WORKING WITH GRACE NOTES

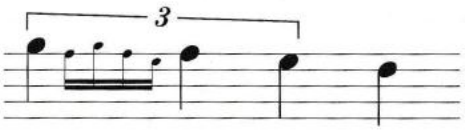
Grace notes are ornamental notes that adorn regular notes. When played, they usually take up part of the duration of the note that they adorn.

How grace notes differ from regular notes

In Mosaic, grace notes can be placed anywhere, and they can be beamed, slurred, tied, and ornamented in the same fashion as regular notes.

Here is what makes grace notes different from regular notes in Mosaic: they are smaller, and they do not have a duration; that is, they do not "count" when Mosaic adds up the beats in a measure. Therefore, enough space is provided in the measure for them, but they do not affect how regular notes in the measure will line up with notes in the same measure on other staves.

☛ Please note! Grace notes cannot be made into a triplet or tuplet. They can, however, be enclosed in a triplet or tuplet in which the note they adorn resides as shown below:

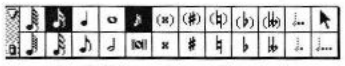


Entering a grace note with the mouse

To enter a grace note with the mouse:

1 Click the desired duration in the note or rest palette.

2 Click the grace note symbol (as shown to the left) in the palette.



3 If necessary, click the dot symbol in the palette.

4 Click the staff at the desired location and pitch.

Entering a grace note with the keyboard

To enter a grace note with the keyboard:

1 Press the open bracket ([ ) or close bracket ( ]) keys to select the desired base duration.

2 If necessary, press the dot key to make a dotted duration.

3 Press the comma (,) key to toggle on the grace note palette symbol.

☛ Note: the grace note palette symbol will remain highlighted until you deselect it. To do so, press the comma key again.

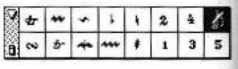
4 Press return to enter the note.

Remember, you can press the plus or minus keys to enter the grace note with a sharp or flat.

Adding a slash to a grace note stem

To add a slash to the stem of a grace note:

1 Click the slash symbol in the ornaments palette.



2 Click the grace note.

Alternately, you can click the grace note to select it and apply slash by command-clicking the slash symbol in the palette.

Using grace notes to notate a cadenza

To notate a cadenza, enter the cadenza notes as grace notes.

SCALING THE SIZE OF NOTES

The Scale command in the Format menu allows you to scale the size of notes and rests independently of the staff. This command is ideal for making cue note passages.

Scaled notes differ from grace notes because they do take up the correct duration with respect to notes in the same measure on other staves. They still "count" when Mosaic adds up the number of beats in the measure. For an explanation of grace notes, see "Working with grace notes" on page 59.

All symbols that are "attached" to the notes and rests in the voice are scaled with the notes. Attached symbols include articulations, ornaments, groupings such as slurs and ties, and dynamics, including hairpins. To scale, select the notes and choose the Scale command from the Format menu.

Figure 8-6: The first example is normal size (100%). The second example is the same passage scaled to 50% with the Scale command. Notice that voice-related symbols such as articulations, groupings such as slurs and ties, and dynamics are scaled as well. The staff remains the same size.

Notes can be made larger or smaller. To restore symbols to their original size, scale them to 100%.

☛ Text items such as the coda sign cannot be changed with the Scale command. Scale text items by modifying their point size.

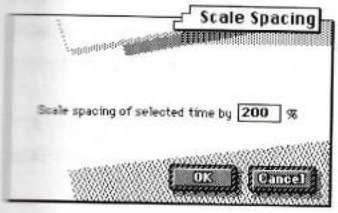
Scaling is staff-specific. For example, a voice can be scaled to 50% on one staff while displayed at 100% on another.

Making cue notes with the Scale command

If you would like to use a certain voice for cue notes, copy the cued instrument notes from the score view (or the original instrument part) and paste them into the instrument view where they will serve as cue notes. Then scale the copied material as desired. Copying in this manner leaves the original part at full size.

CONTROLLING NOTE SPACING

The Scale Spacing command in the Format menu lets you tighten or expand the spacing for any selected region of notes or rests. Spacing is set by percentage, where 100% is the current spacing.



You can scale any region, from a single note to the entire piece. For example, if you'd like a measure with a whole note to be wider, you can select the whole note and increase the spacing. For information about selection large regions, see "Selecting large regions" on page 132.

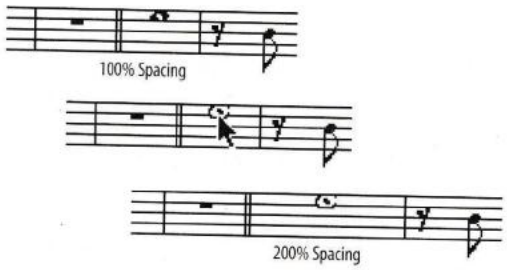


Figure 8-7: Scaling the width of a single whole note.

Scaling can be done on both notes and rests.

Scaling is cumulative. For example, if you scale a single measure, and then scale a larger region that includes the measure, it maintains its spacing proportionally.

The Scale Spacing command is view-specific. It only affects the data in the view you have selected. This gives you greater flexibility because you can choose a different scaling amount for each view, which may have its own unique spacing requirements.

☛ The results of Scale Spacing in a page view are restricted by the line break settings. For example, if you have already used the Casting off command to force 4 measures per line, scale spacing will have no affect over the length of the entire line. It will have a an effect, however, on a region within the four bar line (as shown in Figure 8-7 above, for example).

Restoring default spacing

To return a region of notes and rests to their default spacing, select the region and choose *Restore Default Spacing* from the Format menu.

CHAPTER 9 Beams

This chapter covers everything you need to know about working with beams, including:

- Beaming manually (overriding auto-beaming)
- Customizing auto-beaming
- Entering, deleting, and adjusting a beam
- Beaming across staves and over barlines

WORKING WITH AUTO BEAMING

Mosaic beams notes automatically as you enter them. By default, Mosaic follows standard beaming conventions, and it does so with respect to the current meter. For example, eighths and sixteenths get beamed in two groups in 6/8 time. In 4/4, eighths and sixteenths get grouped in four sets, one for each quarter note.

Turning Auto Beam on and off

The Auto Beam command in the Format menu can be turned off and on as desired. When it is checked, Auto Beam is turned on. When it is unchecked, Auto Beam is turned off.

When auto-beam is on, Mosaic automatically beams notes as you enter and edit them.

Turn Auto Beam off when you wish to override the way that notes get grouped when Mosaic beams them.

For example, if you are entering eighth notes in 4/4 time, Mosaic auto-beams them in groups of two by default. If you would like to auto-beam a passage in groups of four:

1 Select Auto Beam in the Format menu to toggle Auto Beaming off before you enter the notes.

2 Enter the notes and beam them manually.

To beam notes manually, see the next section.

Entering a beam manually

To enter a beam manually:

1 Select the notes to be beamed.

To select the notes, shift-click each one, or drag a selection box over them.

2 Choose Beam from the Region menu.

As a shortcut, press command-B.

Deleting a beam

To delete a beam:

1 Select the beam or beams to be deleted.

To select a beam, click it. To select multiple beams, shift-click each one.

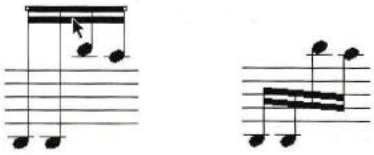
2 Choose Cut or Erase from the Edit menu.

As a shortcut, press one of the following key combinations: delete, command-X (Cut), or command-B (Erase).

Adjusting the vertical position of a beam

To adjust the height of the beam (the distance from the noteheads), drag the beam up or down as shown below:

You can also position the beam in between notes as shown here:



Adjusting beam angle

To adjust the angle of a beam:

1 Click the beam.

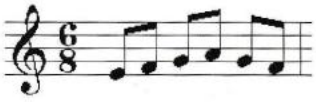
Handles appear at either end of the beam.

2 Drag either handle up or down.

CUSTOMIZING BEAM GROUPING

You can customize the way in which Mosaic groups notes with beams. For example, in 6/8 time, Mosaic beams eighth notes in threes:

But you might want eighth notes to be beamed in pairs rather than in threes:



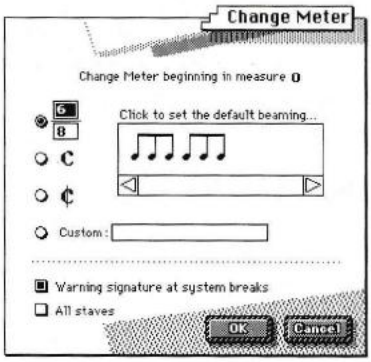
Beamed notes are grouped according to the current meter. Mosaic allows you to customize how beamed notes are grouped from within the Change Meter command. Thus, each time you create a meter, you can customize how beamed notes get grouped. To change an existing meter, you re-enter the meter with the Change Meter command.

To insert a meter in order to customize beam grouping:

1 Place the insertion cursor at the beginning of the measure in which you want to place the meter.

This places the insertion cursor in the measure. If you wish to change an existing meter, place the insertion cursor immediately to the right of the existing meter.

2 Choose Change Meter from the Region menu.



3 Select the desired meter.

4 Click the space between notes to toggle on or off the beam connection between the notes.

Keep toggling the beam connections until you have set the desired grouping configuration.

5 Set the Warning signature at system breaks and All staves options as desired.

See "Inserting a meter change" on page 94 for more information.

5 Click OK to confirm your choices or click cancel to withdraw the Change Meter command.

The meter change is entered. When Auto Beam is turned on, any beamed notes you enter within the region prescribed by the meter change will be grouped in the manner you chose in the Change Meter dialog.

☛ Please note! The above procedure does not affect notes that are already beamed. It only affects how newly entered notes are beamed.

RE-BEAMING A REGION

To re-beam a region:

1 If necessary, change the meter at the beginning of the region to set up the desired default beam grouping.

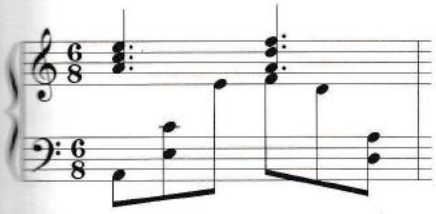
2 Make sure that Auto Beam is checked in the Format menu.

3 Select the region.

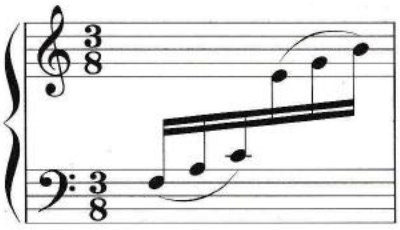
4 Choose Beam from the Region menu.

BEAMING ACROSS STAVES

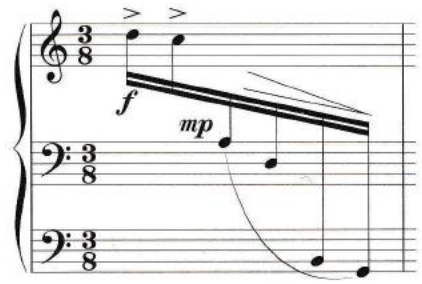
Mosaic provides cross-staff beaming. A cross-staff beam connects notes that are notated on separate staves.



The beam can lie above or below the staves as shown above, or it can be moved vertically to a position in-between the staves:



Notes can span more than one staff as well:



To create a cross staff beam group:

1 Enter the notes on one of the staves in the staff group.

It doesn't really matter which one you choose. If most of the notes will be notated on a particular staff, use that one for convenience.

2 Beam the notes if they are not beamed automatically.

Remember that you can override the default beaming. See the other sections in this chapter.

3 To move a note within the beamed group to another staff above or below, option-drag the notehead up or down.

As you drag, you will see an arrow indicating that the note will be placed on the other staff. When you release the mouse, the note will be displayed according to the clef and key signature on the staff.

4 Option-drag each note you wish to move to the other staff.

You can option drag more than once to place the note more than one staff away.

5 Adjust the beam placement as desired by dragging the beam handles.

CHAPTER 10 Groupings

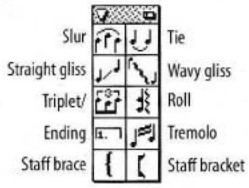
Groupings are musical symbols that span across notes. They include:

- Slurs and ties
- Triplets and tuplets
- Glissandos
- Endings
- Hairpin crescendo and decrescendo

This chapter explains how to enter them, delete them, adjust them, extend or shorten them, flip them above or below notes, and set defaults regarding their appearance.

THE GROUPINGS PALETTE

All groupings (except the hairpin crescendo and decrescendo) are entered with their respective tool in the Groupings palette. The groupings palette has the following tools:



WHAT IS A GROUPING?

A grouping is a symbol that spans across several notes in a voice and in some way indicates a musical modification to the notes. For example, a slur indicates that the notes should be played in a smooth, connected fashion.

Mosaic handles groupings in as musical a fashion as possible. For example, when you enter an octave up bracket (8va), the notes within the bracket are displayed 7 lines and spaces from the one on which they were originally written. If you remove the 8va bracket, the notes return to their original position.

Mosaic does not allow groupings to cross voices. For example, you cannot begin a slur on a note in Voice-1 and end the slur on a note in Voice-2. This makes musical sense because symbols like slurs and ties indicate how a single musical voice should be played. Also, imagine what would happen if you had another view in which Voice–1 and Voice–2 were displayed on separate staves. How would a slur be displayed in such a case? As a result, if you attempt to cross voices, Mosaic does not enter the grouping symbol and notifies you that you cannot enter it across voices. (Endings and octave up/down brackets are exceptions: they affect all voices displayed on the staff.)

Because a grouping is part of the voice, it appears as part of the voice on any staff in any view. For example, if you enter a crescendo in the piccolo voice in a master score view, the crescendo is automatically added to the piccolo voice in other views as well, such as the piccolo part view.

ENTERING A GROUPING

Any item in the Groupings palette can be entered by the method described in this section. Several groupings, such as ties, ottavas, and endings, have special considerations which are discussed in later sections in this chapter.

To enter a grouping:

1 Click the desired grouping from the palette.

2 Click above or below the first note of the region and drag from left to right to the last note.

Don't worry about how it looks as you are dragging. You can adjust the position as much as you want after you enter it. You can drag either above or below the notes. If you change your mind after entering the grouping, you can flip the grouping to change its vertical position.

☛ Note: if you are entering the grouping in a page view, Mosaic allows you to drag from one staff system to the next. Just drag from the first note to the last note no matter what staff the last note is on. If you have to end the grouping on the next page, see the next section.

☛ Remember: if you have more than one voice on a staff, you cannot begin the grouping in one voice and end it in another. You must begin and end the grouping in the same voice.

Entering a grouping over a large region

If you need to enter a grouping over a large region, large enough so that it would not be practical to drag and scroll over the entire region, you can enter the grouping by selecting a start and end point.

To enter a grouping over a large region:

1 Click the note at the beginning of the region to select the note.

2 Shift-click the note at the end of the region to select it.

☛ Please note! The notes that you select at the beginning and end of the region must be in the same voice. Otherwise, the grouping will not be entered.

3 Command-click the icon of the desired grouping in the Grouping palette.

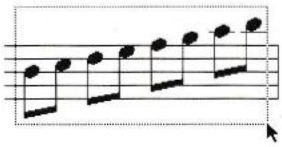
The grouping is inserted over the region defined by the selected events.

Entering a grouping by selecting a region

You can also enter a grouping by selecting a group of notes and command-clicking the desired palette item.

To enter a grouping over a selected group of notes:

1 Drag a selection box over the group of notes to select them.



2 Command-click the desired palette item in the Groupings palette.

The grouping gets inserted over the selected region.

Entering a tie by clicking a note

Ties can be inserted two ways: by dragging over the notes to be tied as described earlier in this chapter or by clicking the first of two notes to be tied.

To enter a tie by clicking the note to be tied:

1 Click the tie symbol in the Groupings palette.

2 Click the first of the two notes to be tied.

Mosaic will connect the tie to the first note of the same pitch in the same measure or next measure. If no note of the same pitch exists, Mosaic won't insert the tie.

Ties are automatically formatted to avoid staff lines.

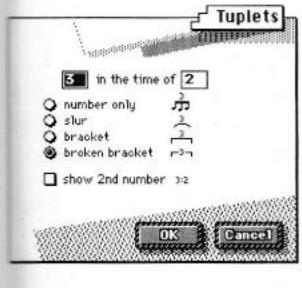
Entering a triplet or tuplet

Mosaic is flexible about triplets and tuplets. You can insert a tuplet of just about any value you can think of, and you can choose how the tuplet is displayed.

Before you insert the triplet or tuplet, you need to choose the tuplet ratio and set the appearance of the tuplet. To do so:

1 Double-click the triplet icon in the Groupings palette.

The Tuplet set up dialog appears.

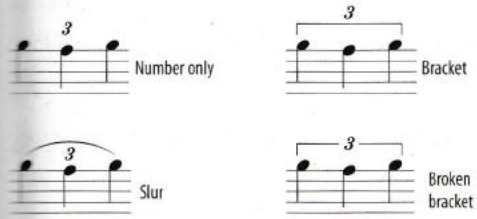


2 Type in the desired ratio.

See "Determining a tuplet ratio" on page 69.

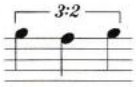
3 Choose the desired appearance of the tuplet.

Samples are shown below.



4 Choose whether to display the second number.

When the second number is displayed, the tuplet is expressed as a ratio:



5 Click OK to confirm your choice or click Cancel to withdraw the command.

Once you have made the above choices about the tuplet, enter it by dragging over the notes.

☛ Please note! The settings you make in the Tuplet setup dialog are remembered and saved with the file.

Determining a tuplet ratio

A triplet is always expressed as 3 in the time of 2.

If you are entering a tuplet, and you are not sure what the tuplet ratio should be, think of the number of notes that will in the tuplet. This is the first number of the ratio.

Then, think of the amount of time that you want them to fit into, and determine how many notes of the same duration would fit in that time if they were not a tuplet. That is the second number.

For example, let's say that you wanted to enter an eighth note quintuplet over the span of a half note. So the ratio would be 5 in the time of X. To determine X, think of how many straight eighth notes it takes to create the duration of a half note: four. So the ratio would be 5 in the time of 4.

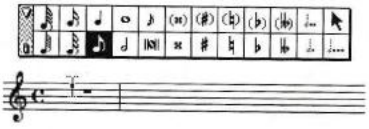
Entering tuplets and ties at the same time as notes

Mosaic lets you enter ties and tuplets at the same time as you enter notes. This is a real time saver, especially for tuplets, which sometimes require rebeaming and other manual reformatting when entered after the fact.

This technique can be done with MIDI step record entry (described in chapter 34, "MIDI Recording and Playback"), mouse entry, or Macintosh keyboard entry. First select a note duration from the Notes palette and then select the tuplet (or slur) tool in the groupings palette before you begin note entry. You can then enter notes and they will be grouped accordingly. The tuplet (or slur) tool remains selected until you click it to turn it off or select the arrow cursor.

Below is an example of step-record a passage of eighth note triplets:

Begin with the tuplet tool selected at the same time as a note or rest duration...



...and then just fly in the notes via MIDI, the mouse, or the keyboard.

Entering an ending

Endings are brackets placed above measures that serve as separate endings for a repeated section of music.

Endings are a little bit different from other groupings because they are entered per measure rather than per note. When you enter an ending, it is placed over the entire measure (or measures) in which you enter it.

To enter an ending:

1 Click the ending tool in the Groupings palette.

2 Click anywhere in the measure you wish to enter the ending.

If you are entering the ending over several measures, click in the first measure and drag into the last measure. When you release the mouse, a text box appears.

3 Type in a number for the ending (or any text that you wish).

The ending text does not have to be a single number. It can be any text that you want, e.g. "2. and 3." or "Repeat two times".

4 Click anywhere outside the ending text box to complete the insertion.

5 If desired, repeat steps 2 and 3 for a second, third, fourth, etc. ending.

Editing the text in an ending

To change the text in an ending:

1 Double-click the ending text box.

2 Type the desired text or choose the desired font and style from the Text menu.

3 To confirm the edit, click anywhere outside the text box.

To cancel the edit, press command-period.

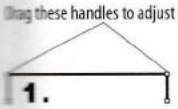
To adjust the position of the text, drag it with the mouse.

Adjusting the height of an ending bracket

To adjust the height of an ending bracket:

1 Click the ending bracket to select it.

2 Grab the upper handle on either side of the bracket and drag it vertically.

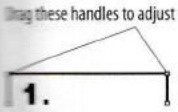


Adjusting the endpoints of an ending

To adjust either endpoint of an ending bracket:

1 Click the ending bracket to select it.

2 Grab the upper handle on either side of the bracket and drag it horizontally.

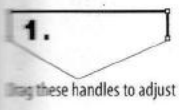


Adjusting the drop lines of an ending bracket

To adjust the length of the drop lines of an ending bracket:

1 Click the ending bracket to select it.

2 Grab the lower handle on either side and drag it vertically.



Extending an ending to an adjacent measure

To extend an ending over the next measure (or measures):

1 Click the ending bracket to select it.

2 Grab either of the two handles nearest the measure you are extending over and drag over the desired measure(s).

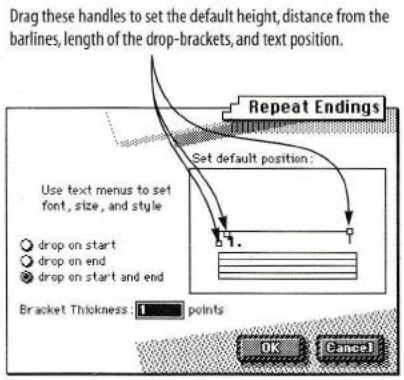
Setting the default characteristics for endings

Mosaic allows you to determine the default appearance for endings. You can control the default height, position, shape, and thickness of the ending bracket. In addition, you can choose the default font and type style for ending text.

To set the default characteristics for endings:

1 Double-click the ending tool in the Groupings palette.

The Repeat Endings setup dialog appears.



2 Choose the desired font, size, and style from Text menu.

This needs to be done before you click OK.

3 Choose the desired type of drop-brackets.

4 Type in a bracket thickness in points.

You can type decimal point sizes. For example, if you are printing on a Postscript printer, and you would like a fairly thin ending bracket, try a point size of 0.5 or below. You might try printing some ending brackets while experimenting with different values to choose a thickness that suits you.

5 Drag the handles of the sample ending bracket to set its default position.

You can set the following default parameters with the bracket handles:

- The height of the ending
- The distance of either end of the bracket from the measure barlines
- The length of the drop brackets
- The position of the ending text with respect to the bracket

Remember that these are default settings. Once an ending has been inserted, any of these things can be adjusted further on that particular ending.

Entering a tremolo

To enter a tremolo:

1 Double-click the tremolo symbol in the Groupings palette.

A dialog box appears asking you for the number of slashes.

2 Type the desired number of slashes.

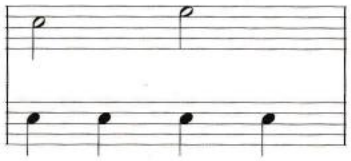
3 Click OK.

4 Click above or below the first note and drag from left to right to the last note.

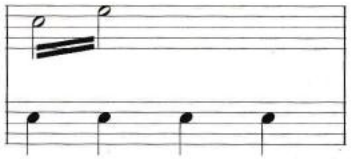
The tremolo is entered between the notes.

A tremolo's effect on duration

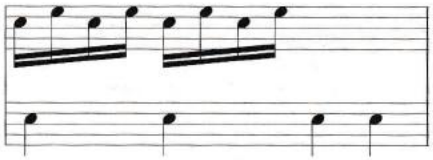
The Tremolo grouping has the effect of halving the rhythmic duration of the notes that it connects. In the example below, the two half notes at the beginning of the measure take up their full two-beat duration before the tremolo is inserted.



After the tremolo is inserted, their original combined duration of four beats is reduced to two:

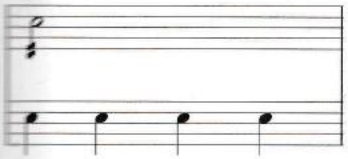


This meant to reflect the musical meaning of the tremolo, i.e.:



Deleting a note that has a tremolo

In the above example, if the first half note in the tremolo is deleted, the remaining tremoloed half note retains the tremolo, as well as its halved duration:



Adjusting a tremolo

Once you have entered a tremolo, you may wish to modify its position. To do so:

1 Click the tremolo to select it.

2 Drag its handles to change its angle or length.

WORKING WITH CRESCENDOS & DECRESCENDOS

The hairpin crescendo and decrescendo markings are groupings, although they are located in the Dynamics palette.

Hairpin crescendo and decrescendo in the Dynamics palette

To insert a crescendo or decrescendo, use the procedure described in "Entering a grouping" on page 67.

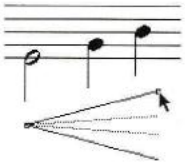
Once the grouping has been entered, you can reposition it in a number of ways. To do so, click the hairpin to select it and then drag it as described below.

To adjust the height of the hairpin, drag it up or down:

To extend or shorten the endpoints, drag either handle horizontally. Hold down the shift key to constrain your motion horizontally:

To change the angle of the hairpin, drag either handle up or down:

To change the size of the opening, hold down the option key and drag the right-hand handle:



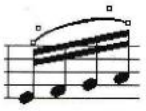
FLIPPING A GROUPING

Groupings can be flipped so that appear on the opposite side vertically above or below notes.

To flip a grouping:

1 Click the grouping to select it.

To select multiple groupings, shift-click each one.



2 Choose Flip from the Format menu.

ADJUSTING A GROUPING

Groupings can be placed in a wide variety of situations. As a result, their default position and shape may not always be appropriate. For example, a slur may cut through the stems of notes, or it may collide with notes in another voice.

Mosaic provides completely flexible grouping symbols that can be adjusted to look exactly as needed to avoid symbol collisions and to look exactly the way you prefer. This section explains briefly how to make adjustments to arcs (such as slurs and ties) and brackets (such as tuplets and endings.)

Adjusting a slur or tie

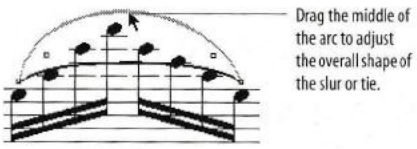
To adjust a slur or tie:

1 Click the slur or tie to select it.

Handles appear on both ends. In addition, Bezier curve handles appear.

2 To adjust the endpoints, drag the endpoint handle.

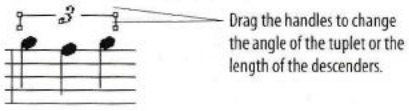
3 To adjust the overall shape of the slur, drag the middle of the arc.



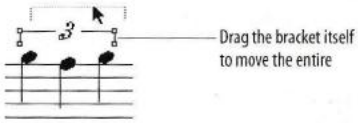
4 To further adjust the shape of the slur, drag the Bezier curve handles.

Adjusting a tuplet bracket

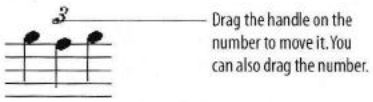
Tuplet brackets and numbers can be adjusted freely with their handles. To adjust a tuplet, click the tuplet bracket or number to select it and drag the handles as desired.



To move the entire bracket, drag the body of the slur or bracket:



To move the number of the tuplet, drag the handle that appears on the number.



DELETING A GROUPING

To delete a grouping:

1 Click the grouping to select it (handles visible).

2 Press the delete key, or choose Cut (command-X) or Erase commands in the Edit menu.

CHAPTER 11 Articulations, Ornaments, and Dynamics

Articulations, ornaments, and dynamics are all symbols that indicate how notes should be played. Some examples are:

- Staccatos
- Accents
- Bowings
- Trills
- Dynamics symbols such as ff, pp, and sfz
- Jazz symbols such as lip trills, doits, falls, and rips

This chapter explains how these symbols work in Mosaic, how you can enter them on one or more notes at a time, and how you can adjust and delete them.

UNDERSTANDING NOTE-SPECIFIC SYMBOLS

Think for a moment about these symbols: none of them have meaning by themselves. They only have meaning when placed near a note (or notes) to indicate how the note(s) should be played. You could say that these symbols *apply* to the note(s). As a result, we will refer to these types of symbols *note-specific*.

Because they apply to notes, note-specific symbols are "attached" to notes when you enter them in Mosaic. For example, if you enter an accent above a note, the accent becomes attached to the note. If you cut the note and paste it somewhere else, the accent goes with it. If you transpose the note, the accent stays with the notehead. If you snip music before the note so that it shifts backwards a few measures, the accents stays with it.

As you can imagine, this makes working with articulations, ornaments, and dynamics easy. Once you have entered them, you rarely have to deal with them again.

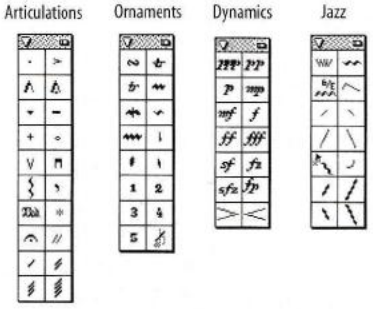
Entering note-specific symbols is as easy as pointing and clicking. And once they're entered, Mosaic provides complete flexibility in their placement. Even though the symbol always remains attached to its original note, you can drag it anywhere to place it exactly where you want.

INSERTING A NOTE-SPECIFIC SYMBOL

To insert a note-specific symbol:

1 Click the desired symbol in its palette.

Note-specific symbols are found in the Articulations palette, Ornaments palette, Dynamics and Jazz palette.



☛ Please note! The hairpin crescendo and diminuendo symbols at the bottom of the dynamics palette are groupings. For information about how to enter them, see "Entering a grouping" on page 67.

2 Click directly on the notehead of the desired note, or click in the vicinity of the notehead.

If you click directly on the notehead, Mosaic places the symbol in the customary location. If you click above or below the notehead, the symbol will be placed above or below the note.

ADJUSTING A NOTE-SPECIFIC SYMBOL

After inserting a symbol, you can adjust its position by dragging it.

For fine tuning the position, zoom in.

Inserting symbol on several notes at once

To save time, you can enter a note-specific symbol on more than one note at a time.

For example, if you entered a staccato passage, you can enter all the staccato symbols at once.

As another example, you might want to enter a dynamic symbol in an orchestra score vertically in all the voices at one time.

To insert a symbol on more than one note at a time:

1 Select the arrow cursor from the notes palette.

2 Select the desired notes.

To select a group of notes, drag the selection box over them. To select discontiguous notes or notes in separate voices, shift-click each one.

3 Command-click the desired symbol in the palette.

The symbol is attached to each selected note.

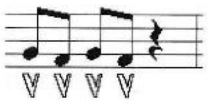
FLIPPING A NOTE-SPECIFIC SYMBOL

Note-specific symbols appear either above or below the notes to which they are attached. You can change their position with the flip command.

To flip a note-specific symbol:

1 Select one or more symbols.

To select a single symbol, click it. To select several, drag the selection box over them. To select discontiguous symbols, shift-click each one.



2 Choose Flip from the Format menu.

DELETING A NOTE-SPECIFIC SYMBOL

To delete a note-specific symbol:

1 Select the symbol.

To select a single symbol, click it. To select several, drag the selection box over them. To select discontiguous symbols, shift-click each one.

2 Press the delete key.

Alternately, you can use the Cut (command-X) or Erase commands in the Edit menu.

CHAPTER 12 Measures and Barlines

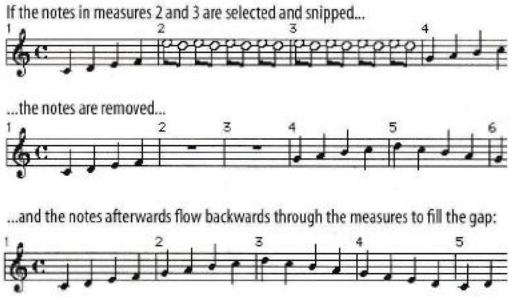
This chapter explains how notes flow through measures. In addition, it explains how to:

- Set the number of measures in the score
- Add and remove measures anywhere in the score
- "Cast off" (determine the number of measures per line and control overall horizontal spacing)
- Insert and delete barlines
- Drag barlines left and right to adjust measure widths
- Change a barline from one type to another
- Use repeat barlines at the beginning and end of a line
- Use single-bar and double-bar repeat barlines
- Create "measureless" music (music with no barlines) using the invisible barline
- Manually adjust line and page breaks
- Connect barlines between staves

For information about numbering measures, see chapter 13, "Numbering Measures".

WORKING WITH MEASURES

In Mosaic, measures and barlines serve as a framework through which the notes in each voice flows. For example, if you snip two bars of notes from a staff, the notes disappear and all the notes in the voice after them "flow" backwards through the measures left over to fill up the space.



The measures themselves are not snipped. In general, measures (and the barlines that define them) are treated separately from the notes that flow through them.

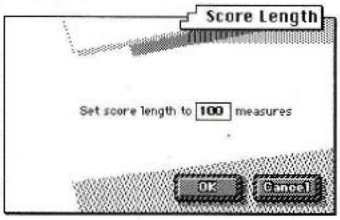
For example, a key change, meter change, or clef can be placed in a measure, and it will affect how notes that flow past it are displayed. However, the measure and the key change itself do not flow with the notes; they remain separate.

Using Set Score Length

When you create a musical score in Mosaic, it contains a certain number of measures. When you open a new file, it contains one measure, and new measures are added as you enter music.

You might, however, like to set up the score before you begin entering music. For example, you might create a score template that contains 100 measures, in which you would like to place meter changes, key changes, repeat barline sections, and so forth, before you begin entering notes.

To do so, choose Set Score Length from the File menu, type in the desired number of measures, and click OK. The measures are added as empty measures (with a whole rest).



Adding and removing measures

Two commands in the Edit menu allow you to insert or remove measures anywhere in a score. When you do so, measures are added or removed from all views.

To add or remove measures:

1 Place the insertion cursor at the location where you would like to insert or remove measures.

Use the left/right arrow keys to ensure the placement you want. If you don't want to split up an existing measure, be sure to place the cursor at the very beginning or very end of the measure.

2 Choose Insert Measures or Delete Measures from the Edit menu.

A dialog box appears asking you how many you would like to insert or delete.

3 Type in the number of measures and click OK.

The measures you chose are removed, including all music within them.

CASTING OFF

Casting Off is term used by music engravers that refers to the process of determining where line breaks and page breaks fall within the music. The Casting Off command in the Format menu lets you control where line breaks occur in your page views. You can specify a certain number of measures per line, and you can choose between equally spaced measures on a line or proportional spacing. Casting off can be done in the current view or in all views.

The Casting Off command also lets you contract or expand the overall default note spacing, which has an impact on where Mosaic automatically places line breaks and page breaks when you don't specify a certain number of measures per line. The overall default note spacing also directly impacts the spacing of notes in galley views.

☛ The Casting Off command controls the spacing of the entire view (or views). If you would like to expand or contract note spacing for only a specific passage of notes, a single measure, or region of measures, use the Scale Spacing command described in "Controlling note spacing" on page 61.

To cast off, follow this procedure:

1 Open the view window that you want to cast off.

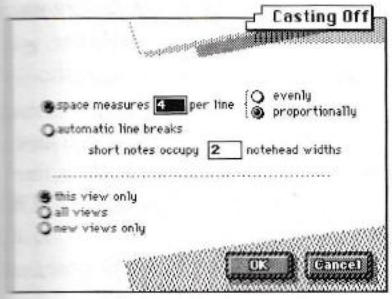
Make it the active (topmost) view.

2 If you have previously entered manual line breaks (as described later in this chapter), and you want to replace them with the new spacing, delete them.

Manual line breaks override the Casting Off command. Manual line breaks are created using the line break tool (the Hand icon) in the barlines palette. Manual line breaks appear in Show Layout

mode as "pins" stuck in the page at the end of a line. For information about deleting them, see "Deleting a line or page break" on page 84.

3 Choose Casting Off from the Format menu.



4 Choose the options as desired.

These options are discussed in the following sections.

5 Click OK to confirm or Cancel to withdraw the command.

If you change your mind after clicking OK, you can use undo and try again.

What to expect after casting off

Mosaic does its best to space measures as you request with the Casting Off command. In some cases, however, measures just will not fit on one line--the notes would have to be piled on top of one another to fit on the line. In this case, Mosaic reduces the number of measures on the line to produce a minimum comfortable spacing.

In particular, lyrics tend to force a wider spacing to accommodate the text. Assigning a smaller point size to the lyric text (in the Lyrics window) allows tighter spacing.

Space measures n per line

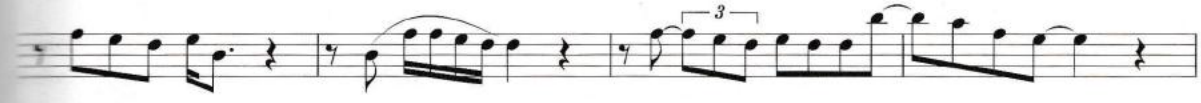
This option produces a fixed number of measures per line. You have two options for how the measures are spaced: evenly or proportionally. The example in Figure 12-1shows a line of music formatted both ways to illustrate the difference. Bars with short durations take up more space with proportional spacing.

This option is greyed out if the current view (topmost window) is a galley view because there are no line breaks in a galley view.

Automatic line breaks

This option restores the region to Mosaic's default line breaks, which are based on the default notehead width setting below this option. (Manual line breaks are preserved.) This option is greyed out if the current view (topmost window) is a galley view because there are no line breaks in a galley view.

four measures per line; even spacing



four measures per line; proportional spacing

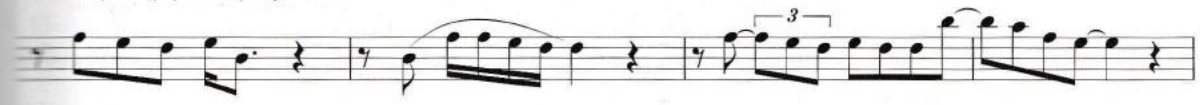


Figure 12-1: Even versus proportional spacing when using the n measures per line option.

Short notes occupy n notehead widths

This option lets you increase or decrease Mosaic's overall default note spacing. If you increase this number, notes and rests become more spread out; if you decrease it, spacing becomes tighter. The value you enter is a number of notehead widths. The default value is 2 noteheads. Fractional values are also allowed, such as 2.4 or 1.7 noteheads. Figure 12-2 shows the difference in spacing between the default value of 2 and a value of 3.

Why does Mosaic specify this value in notehead widths? Well, it is not crucial to understand why in order to be able to use this feature. But if you are wondering, the algorithm Mosaic uses to space notes and rests is based on notehead widths. In this algorithm, the shortest note duration in a measure (or an eighth note, whichever is shorter) is assigned a default spacing width of two noteheads. Accordingly, the next higher duration is given a spacing width of three noteheads, and so on. This formula is a standard among music engravers (who have their own special versions of it, of course).

For example, if the shortest duration in a measure is a sixteenth note, all sixteenth notes in the measure are given a spacing of two noteheads wide. Eighth notes are spaced three noteheads wide, quarter notes four, and so on.

In page views, this option has more effect when you choose the automatic line breaks option in the Casting Off dialog box because Mosaic uses the noteheads setting to determine how many measures will fit on each line. However, if you have chosen a certain number of measures per line, line breaks take precedence over note spacing.

In galley views, the effect of this option is most noticeable because galley views are always displayed using the default notehead width spacing, and measures never have to stretch or shrink to match the width of the line on the page. If you want to fine-tune the spacing in your document, observe a galley view when making small changes (such as 2.4 instead of 2.3, for example) because you will see the difference more readily than in a page view.

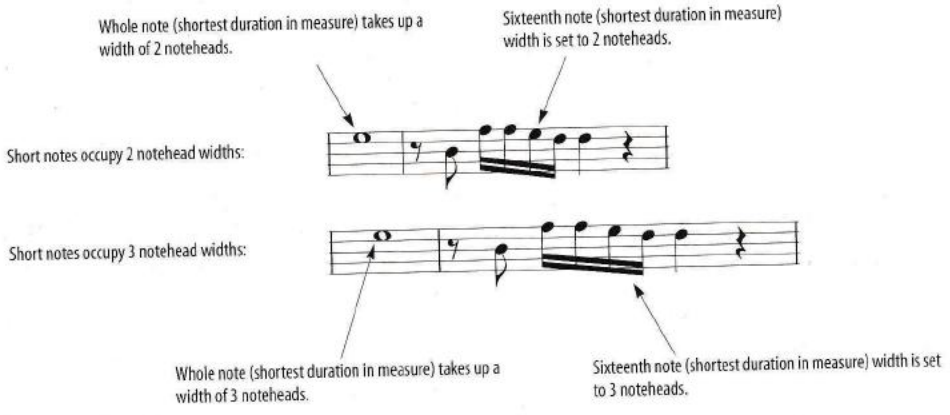
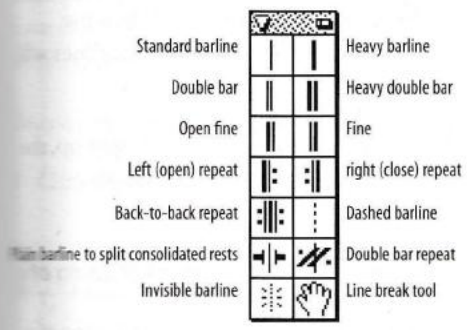


Figure 12-2: Using the default notehead width to change the default note spacing. This example is taken from a galley view, which is affected much more by this option because galley views are always displayed using the default notehead width spacing.

This view only / All views / New views only
These options control what is affected when you OK the dialog box. *This view only* casts off the current view (topmost window). *All views* casts off in all views, as well as new views that you create. *New views only* leaves existing views alone and casts off new views that you create with the Add page or Add galley mini-menu commands in the Views window. Think of this last option as a preference, since it affects all new views that you create.

WORKING WITH BARLINES

Mosaic provides the following barlines in the Barlines palette:



The following sections explain how to work with these barlines.

Inserting and deleting barlines

Barlines can be inserted in a similar fashion to other musical symbols in Mosaic:

1 Select the desired barline from the Barlines palette.

Click the type of barline that you want to insert.

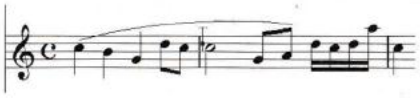
2 Click on any staff in any view at the desired location of the barline.

Note that when you click on a staff, but not directly on an existing barline, a new barline is added to all views, creating a new measure in the process.

Similarly, barlines can be deleted in a familiar fashion:

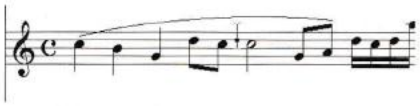
1 Place the insertion cursor just to the right of the barline, or click the barline to select it.

If you are placing the insertion cursor, use the left/right arrow keys because they ensure that no other symbol is in between.



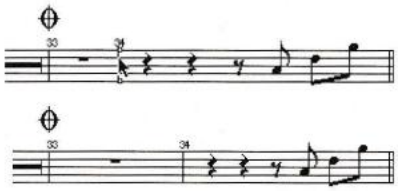
2 Press the delete key.

The barline is removed in all staves.



Dragging a barline

Barlines can be dragged left or right to adjust the width of the measures on either side of the barline. To drag the barline, grab the middle of it as shown below, not the handles at the top and bottom of the barline. They are used to connect the barline to the staff above or below.



If, later on, you wish to restore the measures to their original, default widths, select the notes and rests within them and choose Restore Default Spacing from the Format menu.

Changing a barline

Any existing barline can be changed to any barline desired.

To change a barline:

1 Select the desired barline from the Barlines palette.

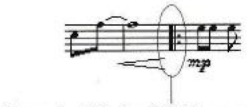
2 Click directly on the barline you wish to change, or click anywhere in the measure following the barline.

Splitting repeat barlines at system breaks

Repeat barlines automatically split when the fall on a system break. For example, when a left repeat barline falls at a line break, it ends the line with a regular barline and begins the next line (following the clef and key signature) with the left repeat barline.

A back-to-back repeat barline splits itself in the same manner, with the right repeat ending the first line and the left repeat beginning the next line.

You can get Mosaic to end a line before a repeat bar with a double barline instead of a regular barline as shown below:



Above, a double barline (which is currently hidden) has been placed back-to-back (at the same location as) a repeat barline. When this measure boundary falls at a system break as shown below, the barlines split up accordingly.

To set up a system break with a double-barline followed by a back-to-back repeat barline:

1 Choose the desired double barline (normal or heavy) from the palette.

2 Click on the barline that ends the measure.

This causes the barline to change to the double barline.

3 Choose the left repeat barline from the palette.

4 Click on the same barline as in step 2.

If the barline does not currently fall on a system break (such as if it is in a galley view), Mosaic displays the repeat barline by itself. When the barline falls at a system break, the two barlines will automatically split up.

☛ When two back-to-back barlines split up, the space in between them does not count as a measure.

Inserting a left repeat bar at the beginning of a new line (system)

To insert a left repeat barline at the beginning of a system:

1 Select the left repeat barline from the barlines palette.

2 Click anywhere near the beginning of the measure.

In the example shown here, the cursor was clicked after the key signature, but you can click anywhere near the beginning of the bar.

When you insert a repeat barline in this fashion, you are not creating an extra measure between the repeat barline and the previous barline. In fact, if you refill the music such that the repeat barline doesn't fall at the beginning of a new line, you'll see a single repeat barline:

Using the invisible barline to notate unmeasured music

The invisible barline in the barlines palettes allows you to notate music without barlines. This is useful for unmetered music. Invisible barlines can be interspersed with regular barlines to mix unmetered sections of music with metered sections.

To enter one or more invisible barlines:

1 Click the invisible barline in the barlines palette.

2 Click each barline that you want to make invisible.

Using single or double measure repeat symbols

The single and double measure repeat symbols can be inserted to indicate that the previous measure should be repeated once or twice.

To enter either one of these symbols:

1 Create the measure to be repeated.

2 Select the single or double measure repeat barline in the barlines palette.

3 Click the barline at the end of the measure to be repeated.

Splitting consolidated rests with barlines

All barlines in the Barlines palette, except for the plain barline and invisible barline, split consolidated rests. If you need to split a consolidated rest with a plain barline, use the split-rest plain barline shown below.

To split a consolidated rest using this barline:

1 Make the Consolidate Rests command unchecked in the view mini-menu.

2 Click the split rest barline tool in the Barlines palette.

3 Click the barline in the score where you want to split the rest.

4 Check the Consolidate Rests command in the view mini-menu.

Use this barline at rehearsal marks, tempo markings, codas, or other landmark symbols that do not automatically split consolidated rests. Special barlines (all except the plain barline), meter changes, key changes, and clef changes automatically split rests without the need for this barline.

To "unsplit" the barline, click it with the plain barline.

ADJUSTING LINE AND PAGE BREAKS

The line break tool in the barlines palette give you the ability to:

- Push one or more measures onto the next or previous system
- Push one or more measures to the next or previous page

The line break tool only controls how measures flow from staff to staff (system to system) and page to page. It does not cut and paste (rearrange the order of) measures. For information about how to cut and paste measures, see chapter 18, "Edit Commands".

The line break tool gives you manual control over how many measures appear on a line (system). By moving measures from one line to another, you can open up music that is too crowded by moving one or more measures to the next or previous system. Likewise, you can tighten up music that is too spread out by adding measures to it from the previous or next system.

☛ The line break tool has no effect in a galley view, since a galley view has no line breaks, system breaks, or page breaks.

☛ Manual line and page breaks take precedence over the Casting Off settings described earlier in this chapter.

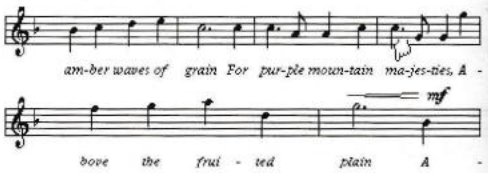
Using the line break to push measures to the previous or next system in a page view is easy. To do so:

1 Select the measure move hand tool from the barlines palette.

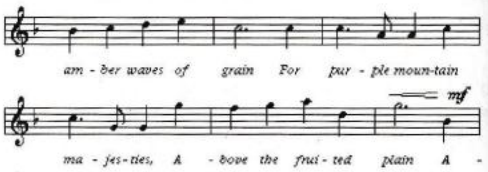
2 To move one or more measures to the previous system, grab the last measure you wish to move and drag up.

This moves the measure you grab, as well as any measures to the left of it on the line, up to the previous system. If you do so in the top system on the page, the music gets pushed to the last system on the previous page.

3 To move one or more measures to the next system, grab the first measure you wish to move and drag down.



This moves the measure you grab, as well as any measures to the right of it on the line, down to the next system. If you do so on the bottom system on the page, the music gets pushed to the first system on the next page.



4 Repeat steps two and three until you have the desired measure placement.

You may find that once you start sliding measures backwards and forwards, you'll need to make a few more adjustments to get the desired spacing.

Deleting a line or page break

To delete a line break:

1 Choose Show Layout from the page view mini-menu.

2 Select the line break "pin" icon displayed at the right-hand side of the staff and press delete.

If there are several, you can drag a selection box over them to select them all at once.

Figure 12-3: If a page has several pin icons, you can select them all at once by dragging a select box over them.

CONNECTING BARLINES BETWEEN STAVES

To connect barlines between staves in a system:

1. Click any barline in the system.

2. Vertically drag the handles at either end of the barline to connect it to one or more staves above and below the staff as needed.

CHAPTER 13

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CHAPTER 13 Numbering Measures

This chapter explains how to create automatic measure numbers in a document. For information about rehearsal marks or other text, see chapter 15, "Text".

Mosaic can automatically number measures in your document. You can:

- Automatically display measure numbers at every measure, at any regular interval of measures (i.e. every 4th, 5th, or 10th measure), once at the beginning of every system, or once at the beginning of every page
- Choose any font, style, and point size for the numbers
- Choose a left, right, or centered justification above or below the barline
- Adjust the position of a single measure number
- Adjust the position of all measure numbers with respect to the staff and barline, with or without preserving individual adjustments you may have made
- Remove measure numbers
- Restart numbering at any measure using any starting number

Mosaic automatically places measure numbers above the top staff in a system that contains two or more staves.

Measure numbering settings are saved with the file. They can also be adjusted and saved in your new file default setup. For more information, see "Customizing your new file setup" on page 15.

Measure numbers appear in all views in a file.

INSERTING MEASURE NUMBERS

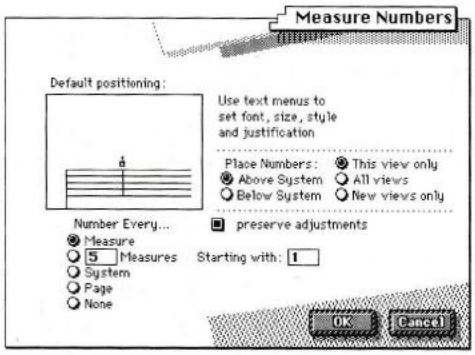
To insert measure numbers:

1 Place the insertion cursor in the measure that you would like to begin measure numbering.

Mosaic can begin numbering in any measure. Since Mosaic automatically places measure numbers above the top staff of the system, you can place the insertion cursor on any staff in the system. In addition, measure numbers will appear in all views, so the view in which you place the insertion cursor does not matter.

2 Choose Measure Numbers from the Format menu.

The Measure Numbers dialog appears.



3 Select the desired text font, point size, and style (italic, bold, etc.) for the measure numbers from the Text menu.

Mosaic remembers the text settings when you save the file, so you only have to adjust these settings the first time.

4 Set the justification (left, right, center) of the numbers with respect to the barline by using the Justify command in the Text menu.

Notice that the sample number shown in the box repositions itself to reflect the justification you have chosen. Notice also that the reference for justification is the barline.

5 Choose to place the numbers above or below the staff.

6 Choose the views in which you would like measure numbers to appear.

These three options control what is affected when you OK the dialog box. *This view only* affects the current view (topmost window). *All views* affects all views, as well as new views that you create. *New views only* leaves existing views alone and affects new views that you create with the Add page or Add galley mini-menu commands in the Views window. Think of this last option as a preference, since it affects all new views that you create.

7 Choose how frequently you would like the measure numbers to be displayed.

If you choose the *n measures* option, a measure number will only be displayed at the interval of measures that you type in. For example, if you number every 4 measures, and you begin at measure 1, you will see a measure number above measure 5, measure 9, measure 13, and so on. If you number every system or every page, the measure numbers will only appear at the beginning of the system.

☛ Don't hesitate to experiment. You can always change the number scheme if you don't like what you get.

8 To adjust the default position of the measure numbers with respect to the staff and barline, drag the handle of the sample number shown.

9 If you would like to begin numbering at a number other than the actual number of the measure, type in the desired number in the Starting with text box.

Mosaic knows the measure in which you placed the insertion cursor and displays its real number in the text box. Sometimes you may want to start with a different number, such as after a repeat section, or if you are creating a series of numbered exercises.

10 If you are inserting measure numbers for the first time, ignore the Preserve adjustments check box. (It only affects numbers that have already been inserted.)

If you are changing existing measure numbers, this option allows you to preserve adjustments you have made to the position of existing measure numbers. See "Adjusting the position of all measure numbers" on page 89.

11 Click OK to confirm your choices or click Cancel to withdraw the command.

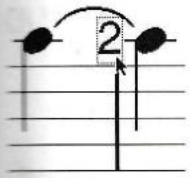
Mosaic enters the measure numbers according to your specifications. The number starts at the measure containing the insertion cursor and proceeds until the end of the score, or up to another measure at which you have restarted numbering. For information about restarting, see "Restarting measure numbers" on page 89 in this chapter.

ADJUSTING MEASURE NUMBERS

Once you have inserted measure numbers, you can change their position, individually or together. You can change their font, style, size, and justification.

Adjusting the position of a single measure number

To adjust the position of a singe measure number, simply drag it to the desired position. You may find it useful to zoom in on the number while doing so.



Adjusting the position of all measure numbers

To adjust the position of all measure numbers:

1 Place the insertion cursor in the measure where measure numbering begins.

2 Choose Measure Numbering from the Format menu.

3 Adjust the position of the sample measure number as desired.

4 If you have previously made adjustments to the position of individual measure numbers and you would like to preserve those adjustments, check the Preserve adjustments option.

If you uncheck this option, all existing measure numbers will move to the position that you set up in step 3.

5 Click OK to confirm your choice or Cancel to withdraw it.

Changing the font, size, and other attributes of the numbers

To change the font, size, and/or style of measure numbers:

1 Place the insertion cursor in the measure where measure numbering begins.

2 Choose Measure Numbering from the Format menu.

3 Select the desired text font, point size, and style for the measure numbers from the Text menu.

4 Be sure that the Preserve adjustments option is checked.

This ensures that the positions of the measure numbers will not change.

5 Click OK to confirm your choice or Cancel to withdraw it.

REMOVING MEASURE NUMBERS

To remove existing measure numbers:

1 Place the insertion cursor in the measure where measure numbering begins.

2 Choose Measure Numbering from the Format menu.

3 Select the None option.

4 Click OK to confirm your choice or Cancel to withdraw it.

RESTARTING MEASURE NUMBERS

Mosaic allows you to:

- Restart at any measure in the score
- Restart with any number
- Restart as many times as you like in a score

For example, you might want to re-number the measures in a coda section at the end of a score to reflect the measures in the repeated section. Or, you might have a repeat section with a first and second ending, and you would like the measure numbers after the second ending to take the repeat into account.

When you restart measure numbering in a document, the new section of numbering can have a different font, style, position, and numbering scheme from other sections in the score. Of course, it can also match the previous section.

To restart measure numbering:

1 Place the insertion cursor in the measure at which you wish to begin re-numbering.

2 Choose Measure numbering from the Format menu.

3 Type in the desired starting measure in the Starting with box.

4 If you want the new section of measure numbers to match the previous section, leave all other options the same and click OK.

5 If you would like the new section of measure numbers to be different in any way from the previous section, make any changes you would like to the position, font, numbering scheme, etc.

6 If you have made adjustments to individual measure numbers, and you would like to preserve these adjustments, check the Preserve adjustments check box.

7 Click OK to confirm your choice or Cancel to withdraw it.

Whenever you restart numbering, the new numbering scheme begins in the measure containing the insertion cursor and proceeds up to either:

- the end of the score,

OR

- the next point at which measure numbering has been restarted.

For example, let's say that you start measure numbering at a coda section at the end of the score. If you then go back to the beginning of the score and restart measure numbering from the beginning, the new numbering will take effect up to the last measure before the coda section. The numbering in the coda section would remain unchanged.

CHAPTER 14 Clefs, Meters, Key Signatures, and Ottavas

This chapter explains how clefs, meter changes, key signatures, and ottavas work in Mosaic. It begins by explaining general principles that are common to all four, and then it presents four separate sections to explain aspects that are unique to each one.

In addition to general information, this chapter tells you how to insert, change, and remove a clef, meter, key signature, or ottava.

Each section also covers advanced features, such as how to:

- Insert custom clefs
- Automatically display a warning clef, meter, key signature, or ottava just before a system break
- Create complex meters such as 2+3 over 8.
- Customize the way that beamed notes are grouped
- Transpose notes to a new key
- Re-spell notes in a new key without transposing their pitch

UNDERSTANDING HOW THEY WORK

Clef changes, meter changes, key signatures, and ottavas all work in the same way. They are staff and measure related. They exist on a given staff at a given measure in the score. They are not affected by the notes in voices on the staff. Rather, notes in the voice(s) on the staff flow around them as the music flows through the staff, and the clef, meter, key signature, or ottava affects how the music is displayed at that measure and in subsequent measures.

They control the display of notes

Clefs, meters, key signatures, and ottavas are not just graphic symbols that you can place in a staff. Rather, they control the display of the notes that follow them. Meters affect how notes are beamed. Key signatures affect how notes are spelled enharmonically. Clefs determine the line, space, or ledger line on which notes are displayed on the staff.

For example, if you insert a key signature of E flat (three flats) from measure 20 to measure 30, all E flats (and A flats and B flats) within those measures will be spelled with respect to the key signature: no flat sign.

If you change the E flat key signature at measure 20 to the key of C major (no sharps or flats), all E flats would be spelled with a flat accidental.

☛ Note, however, that the pitch of the notes has not changed. In general, clefs, key signatures and meters do not affect the actual notes themselves. Rather, they control the *display* of the notes.

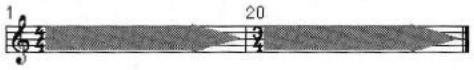
Here is another example: if you enter some notes in one clef, and then change the clef, the position of the notes on the staff would change to reflect their original pitch in the new clef.

They control a region of measures on the staff

A clef, meter, key signature, or ottava controls a region of measures on a staff. The beginning of the region is defined by the clef, meter, key signature, or ottava itself. The end of the region is defined by the next one on the staff, or the end of the piece.

This means that a clef, meter, key signature, or ottava remains in effect until the next one on the staff. For example, if you begin a staff in 4/4 time and place no other meter changes on the staff, the staff remains in 4/4 for the entire length of the piece.

If you then place a 3/4 meter change at measure 20, the staff would be in 4/4 time from measures 1 to 19 and in 3/4 time from measure 20 to the end of the piece.



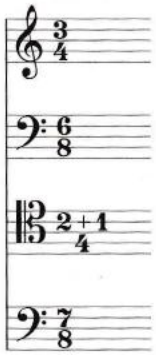
If you then placed a 2/4 at measure 10, the piece would be in 4/4 from measures 1-9, in 2/4 from measures 10-19, and in 3/4 from measure 20 until the end of the piece.

If you wanted to change the staff to 2/4 from measure 10 all the way to the end of the piece, you would need to select all the music through to the end of the piece and change the meter.

As we have already noted, the region affected can be as long as the entire piece of music. Sometimes, however, the region might be as small as one measure--or even less than a measure, as in the case where you place a clef change in the middle of a measure for only a few beats.

Each staff in a system can be unique

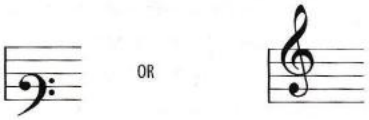
You can have different clefs, meters, and key signatures in staff system at the same time on different staves. For example, you can have multiple meters on different staves in the same measure: a 3/4 on staff-1, a 6/8 on staff-2, and a 2+1/4 on staff-3. You can even have a 7/8 on staff-4, although this will introduce problems with the automatic alignment of the beats in the measure across the staves.



WORKING WITH CLEFS

Mosaic provides a high degree of flexibility with regard to clefs. You can:

- Display any clef symbol shown in Figure 14-1
- Place a clef symbol on any line on the staff, such as:



- Place a clef change anywhere in a measure:

- Automatically display a warning clef change at a system break

- Create a staff with no clef

All of these things can be done with the Change Clef command.

Inserting a clef

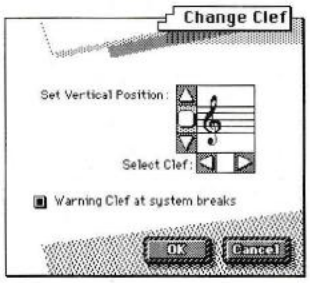
To insert clef:

1 Place the insertion cursor at the point where you wish to insert the clef.

You can insert a clef anywhere, including at the beginning of, in the middle of, or at the end of a measure.

2 Choose Change Clef from the Region menu.

The Change Clef dialog appears.



3 To select a clef, click the horizontal scroll arrows below the clef display.

4 To change the vertical position of the clef you have selected, press the vertical scroll arrows to the left of the display.

5 If you wish Mosaic to automatically display a warning clef change if the clef change occurs at a system break, check the Warning Clef at system breaks option.

6 Click OK.

If the clef is inserted in a region on the staff that already contains notes, the notes will be re-displayed on different line, space, or ledger line to reflect their original pitch with respect to the new clef.

Changing an existing clef

To change an existing clef:

1 Click the existing clef.

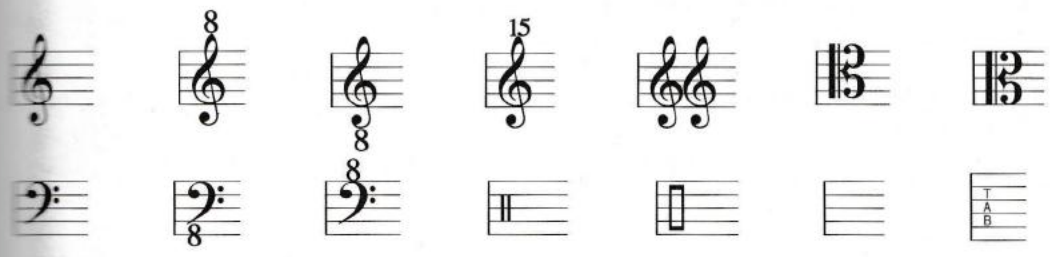


Figure 14-1: Clef symbols provided by Mosaic.

Doing so places the insertion cursor just to the right of the clef.

2 Choose Change Clef from the Region menu.

3 Select the desired clef by clicking the horizontal scroll arrows below the clef display.

4 Click OK.

Removing a clef change

To remove a clef:

1 Click the existing clef.

Doing so places the insertion cursor just to the right of the clef.

2 Choose Change Clef from the Region menu.

3 Change the clef back to the clef just before the one you want to remove.

For example, let's say that the staff began with a treble clef and changed briefly to a bass clef. To remove the bass clef, change it back to a treble clef.

4 Click OK.

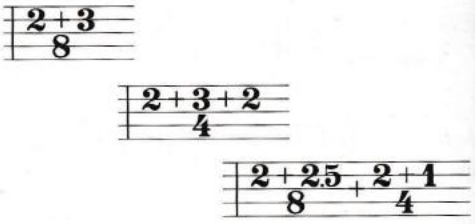
Changing the location of a clef

To change the location of a clef, you must remove it using the procedure in the previous section, and then insert it at the new location. See "Inserting a clef" on page 93.

WORKING WITH METER CHANGES

Mosaic provides a great deal of flexibility with meter changes. You can:

- Insert standard meters such as 4/4, 3/4, 6/8, 12/8, 3/2, and cut time
- Insert custom, complex meters as shown below



- Insert a meter change in all staves in the system
- Automatically display a warning meter change at a system break
- Insert a meter change in the middle of a measure

Inserting a meter change

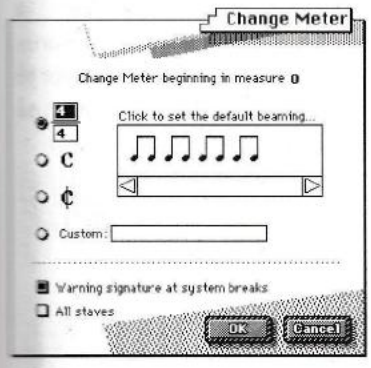
To insert a meter change:

1 Place the insertion cursor at the location at which you want to enter the meter change.

Meter changes are most often placed at the beginning of a measure, so you'll place the insertion point just to the right of the barline in the desired measure. You can, if you like, insert the meter change between notes in the middle of the measure. For example, you may do so in order to re-bar a section of music. For information about re-barring after you insert the meter, see chapter 20, "Rebarring".

2 Choose Change Meter from the Region menu.

The Change Meter dialog box appears.



3 To enter a standard meter, type it in the boxes provided next to the first button.

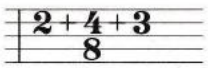
Mosaic allows you to type any integer (1, 2, 3, 4, etc.) in the top box (numerator). The highest number you can enter is 25. In the lower box, you can type any number that is a power of two (1, 2, 4, 8, 16, 32, 64, 128, 256, etc.). The highest number you can enter is 1024.

4 To enter a common time or cut time, click them to select them.

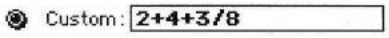
5 To enter a custom complex meter, type in the meter using integers, the plus character (+), and the slash character (/).

Here is an example:

To get this:

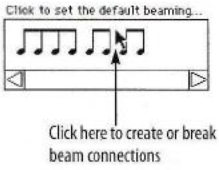


Type this:



6 To choose how beamed notes will be grouped automatically, click the space between notes to toggle on or off the beam connection between the notes.

Keep toggling the beam connections until you have set the desired grouping configuration.



7 If you would like Mosaic to automatically display a meter change warning in the previous system if the meter change occurs at a system break, check the Warning signature at system breaks option.

8 If you would like to enter the meter in all staves in the system, check the All staves option.

9 Click OK.

Changing an existing meter

To change an existing meter:

1 Click the existing meter.

Doing so places the insertion cursor just to the right of the meter.

2 Choose Change Meter from the Region menu.

3 Set up the options as desired.

See "Inserting a meter change" on page 94 in this chapter for detailed information about the options.

4 Click OK.

Removing a meter change

To remove a meter:

1 Click the existing meter.

Doing so places the insertion cursor just to the right of the meter.

2 Choose Change Meter from the Region menu.

3 Enter the same meter as that which immediately precedes the meter you wish to remove.

4 Click OK.

Changing the location of a meter

To change the location of a meter, you must remove it using the procedure in the previous section, and then insert it at the new location. See "Inserting a meter change" on page 94.

WORKING WITH KEY SIGNATURES

Mosaic provides the following capabilities with key signatures. You can:

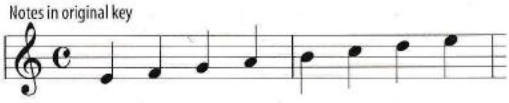
- Insert any standard key signature from seven sharps to seven flats
- Change the key signature in such a way that pitches remain the same but are re-spelled correctly with respect to the new key

Notes in original key

Notes re-spelled in new key

- Change key in such a way that the notes are *transposed* to the new key from their original key

Notes in original key



Notes transposed to new key

- Optionally naturalize accidentals from the previous key signature. In addition you can choose whether to naturalize all previous accidentals or to naturalize only accidentals that have changed. And you can choose whether to naturalize before or after the barline.
- Display a warning key signature when the key signature occurs at a system break

Inserting a key signature

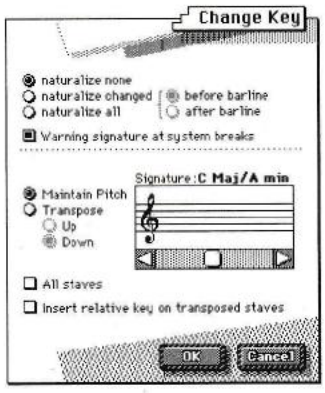
To insert a key signature:

1 Place the insertion cursor at the point where you wish to insert the key signature, or select a region of notes.

You can insert a key signature anywhere, including at the beginning of, in the middle of, or at the end of a measure. If you select a region of notes, and the end of the region occurs before the end of the piece, a key signature is also inserted at the end of the region to restore the old key signature after the new key section.

2 Choose Change Key from the Region menu.

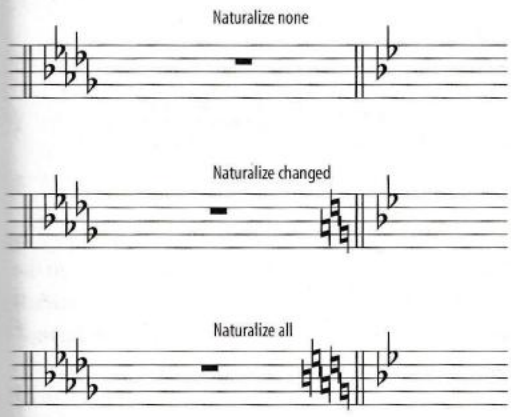
The Change Key dialog appears.



3 Select a key signature by clicking the left or right scroll arrows.

4 Select a naturalization option.

Examples of each option are shown below.



5 If you wish Mosaic to automatically display a warning key change at the end of the previous system when the key change falls at a system break, check the Warning signature at system breaks option.

6 If you wish to maintain current pitches and re-spell them correctly in the new key, click the Maintain Pitch option.

7 If you wish to transpose pitches to the new key, choose the Transpose up/down option.

8 If you wish to insert the new key in all staves in the system, check the All staves option.

9 Set the "Insert relative key on transposed staves" option as desired.

See "Using the 'Insert relative key on transposed staves' option" on page 97 for an explanation of this option.

10 Click OK to enter the key or click cancel to withdraw the command.

Using the 'Insert relative key on transposed staves' option

This option automatically becomes checked when you enable the All staves option. When it is checked, Mosaic assumes that the key you choose in the dialog box is the concert key, and it inserts the correct relative key in each transposed staff.

You can also use this option when inserting a key signature in a single transposed staff. You choose the desired concert key, and Mosaic inserts the proper relative key for you.

For more information about transposed staves, see "Assigning a staff transposition" on page 30.

Changing an existing key signature

To change an existing key signature:

1 Click the existing key signature.

Doing so places the insertion cursor just to the right of the key signature.

2 Choose Change Key from the Region menu.

3 Set up the options as desired.

See "Inserting a key signature" on page 96 in this chapter for detailed information about the options.

4 Click OK.

Removing a key signature change

To remove a key signature:

1 Click the existing key signature.

Doing so places the insertion cursor just to the right of the clef.

2 Choose Change Key from the Region menu.

3 Enter the same key signature as that which immediately precedes the key signature you wish to remove.

4 Click OK.

Changing the location of a key signature

To change the location of a key signature, you must remove it using the procedure in the previous section, and then insert it at the new location. See "Inserting a key signature" on page 96.

OTTAVAS

Ottavas (octave brackets) signify that the notes within the bracket are to be played up or down one or two octaves from the octave in which they are displayed.

To accommodate this notion in Mosaic, notes that are grouped with an ottava bracket are displayed seven lines and spaces below (or above for 8vb) the one on which they were entered. If the ottava bracket is removed, they return to their original position.

Inserting an ottava over existing notes

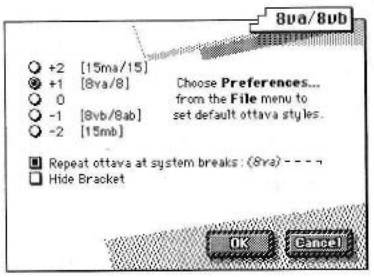
One way to insert an ottava is to enter the notes in the octave you wish them to be played, and then enter the ottava bracket. When you do so, the notes will be *displayed* an octave below (or above).

To enter an octave bracket:

1 Enter the notes in the octave they should be played.

2 Select the notes.

3 Choose Change 8va/8vb from the Region menu.



4 Choose the desired option.

The zero option removes any existing ottavas in the selected region. +1 and +2 represent 8va and 15 ma, respectively. Minus 1 and minus 2 represent 8vb and 15mb, respectively.

5 Select the display options you would like.

Repeat ottava at system breaks places an "8va" (or "8vb") at the beginning of the next system when the ottava crosses a system boundary. *Hide bracket* hides the dashed-line bracket.

6 Click OK to confirm the insertion.

The octave bracket is entered and the notes within the bracket are displayed an octave lower (or higher when entering an 8vb.)

☛ Note: octave brackets affect all voices on the staff that fall within the bracket.

Inserting an ottava to the end of the score

Ottavas can be inserted by choosing an insertion point with the cursor. Doing so causes the ottava to extend to the end of the score:

1 Place the insertion cursor at the location where you would like the ottava to begin.

This can be the very beginning of the score, if desired.

2 Choose Change 8va/8vb from the Region menu.

3 Choose the desired ottava marking.

4 Select the display options you would like.

5 Click OK to confirm the insertion.

Removing an ottava

To remove an ottava:

1 Select the notes which have the ottava.

2 Choose Change 8va/8vb from the Region menu.

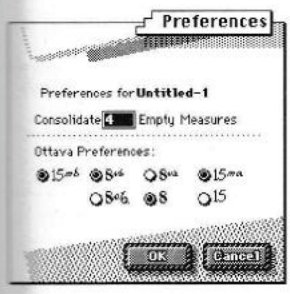
3 Select the zero option.

4 Click OK.

Choosing an alternative way to display ottavas

To choose a different default ottava spelling:

1 Choose Preferences from the File menu.



2 Select the ottava display preferences as desired.

3 Click OK.

All ottavas in the file will change to reflect the choice(s) you made.

CHAPTER 15 Text

This chapter explains how to enter and edit the first four types of text listed in the table below.

This chapter explains general conventions that are common to all four types, and finally, it provides a section explaining each type.

Lyrics and chord symbols are especially unique, so they are explained in their own chapters. See chapter 16, "Lyrics" and chapter 17, "Chord Symbols".

For information about measure numbers, see chapter 13, "Numbering Measures".

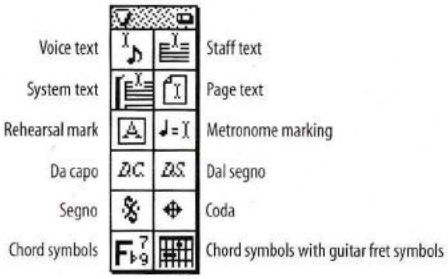
OVERVIEW OF TEXT

Mosaic provides six types of text. Each type serves a particular purpose, which is summarized below:

Text Type	Description	Entry	Examples
Voice text 	Anchored to a specific note in a specific voice; sticks to the note like an ornament.	Voice text tool	Fingering numbers, note-specific directions like *staccato*
Staff text 	Anchored to a specific measure on a specific staff.	Staff text tool	Performance instructions for a specific instrument
System text 	Appears above the top staff in a staff system; appears above any staff from the system when it is placed separately in another view.	System text tool	Rehearsal marks, tempo markings like *Allegro*, directions to instrument players
Page text 	Anchored to the page. Can only be entered in a page view.	Page text tool	Title, header/footer, copyright notice, page numbers, staff names
Lyric text 	Automatically centers each syllable beneath (or above) each note. Flows through all notes in a voice.	Lyrics window	A verse of text below notes
Chord symbols 	similar to voice text; transposable	Chord symbol tool	Lead sheet chord symbols

USING THE TEXT PALETTE

To enter voice, staff, system, or page text, select the appropriate tool from the text palette and insert a text box with it. The text palette contains a tool for each type of text:



WORKING WITH TEXT BOXES

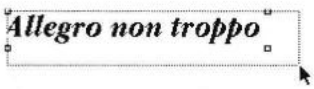
A text box is a resizable, transparent box in which you can type and edit text. If you have worked with MacDraw, SuperPaint, or similar graphics software, you are already familiar with how to use text boxes in Mosaic.

Creating a text box

Voice text, staff text, and page text is entered by selecting their appropriate tool and then dragging or clicking with the text cursor to create a text box.

To enter text, select the desired text tool and either click or drag to create a text box.

Mosaic text boxes can be handled using customary Macintosh text box conventions. For example, the text box can be re-sized by dragging one of its handles:



Editing a text box

Here is a summary of the ways to use a text box:

To do this:	Do this:
To create a text box	Click the voice, system, or page text tool and either click or drag the text cursor to create the text box
To select a text box	Click the text with the arrow cursor
To select several text boxes	Shift-click each one, or drag a selection box over them
To move a text box	Drag it with the arrow cursor
To re-size the text box	Click it with the arrow cursor to select it and drag any handle
To edit text inside the text box	Double-click the text with the arrow cursor, or click the text box with the tool that created it
To complete an edit inside the text box	Click anywhere outside the text box or press the enter key
To delete a text box	Click it to select it and press the delete key
To cancel text editing	Press command-period
To change the font, point size, style, or justification of all text in the text box	Click the text to select the text box and make the desired changes

☛ Please note! Page text can only be inserted in a page view. You are not allowed to create a page text box in a galley view, since there are no pages.

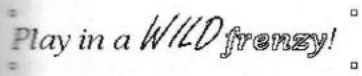
Typing and editing text inside a text box

Once you have inserted a new text box or double-clicked an existing one to type and edit text inside it, use the following actions to edit the text:

To do this:	Do this:
Move the text cursor within the text box	Press the arrow keys
Delete a character	Position the cursor to the right of it and press the delete key
Select a word	Double-click the word
Select several words or sentences	Drag over them inside the text box

Change the font, point size or style of some text in the text box	Select the text and choose the desired font, size, and style in the Text menu
Justify the text to the left margin, to the right margin or to the center	Choose Justify from the Text menu and select the desired justification
Finish inserting or editing the text	Click anywhere outside the text box
Cancel text editing	Type command-period

☛ Words in a text box can have a different font, point size, and text style, as shown below. Simply select the text and choose desired the font, style, and point size from the Text menu:



Cutting, copying & pasting in text boxes

Text can be freely cut, copied, and pasted in text boxes using the commands in the Edit menu. You can even do so between a text box in Mosaic and a completely different text editing program, such as word-processing software. For example, you can write a paragraph of text in your favorite word-processing software, copy it into the clipboard, switch into Mosaic, and then paste it into a Mosaic text box.

USING THE TEXT MENU

The text menu allows you to select the font, point size, style, and justification (left, right, center) of any text, no matter which of the five types it is.

Setting text attributes

To change text attributes using the Text menu:

1 Select the text.

See "Typing and editing text inside a text box" on page 102 for a summary of how to select the text.

2 Choose the desired attribute from the Text menu.

Setting default text attributes

For many of Mosaic's text features, such as measure numbers, rehearsal marks, and staff names, you can use the Text menu to set the default font. For example, when you open the Measure Numbering dialog to insert measure numbers, you can set the text attributes by selecting them from the Text menu before okaying the dialog. These attributes are remembered with the file and remain so until you change them.

The ability to set default font attributes is universal among Mosaic dialog windows that deal with text. This means that you can set the default font for:

- Measure numbers
- Text in repeat endings
- All system text, such as rehearsal marks

Installing fonts in the Text menu

The fonts that you see in the Text menu are the fonts that you have installed in your Macintosh system. If you are not familiar with how to install text fonts in your Macintosh system, refer to your Macintosh documentation.

You can use any text font listed in the menu, including symbol fonts. You can even use music text fonts to insert musical symbols as text, although it would be easier to enter musical symbols from Mosaic's palettes.

☛ When troubleshooting font problems in Mosaic, determine if the problem occurs in your word-processing software, or other programs that deal with text. For example, if you can't find a font that should be in the list, check the font list in your word processor. Most likely, it will be missing there, too, and you know that the problem lies somewhere in the Macintosh system.

Entering musical symbols as text

If you would like to enter a musical symbol that is not in a Mosaic palette, and you have a font in your system that has the symbol, you can enter it as text.

To enter the symbol:

1 Click the voice text tool to select it.

2 Click or drag near the desired note to create the text box.

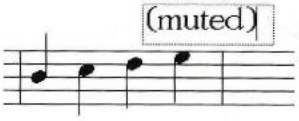
3 Select the desired font and point size from the Text menu.

4 Enter the desired symbol by typing the appropriate key.

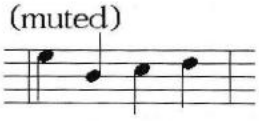
5 Complete the insertion by clicking the voice text tool to deselect it or by pressing enter.

VOICE TEXT

Voice text is text that gets "attached" to the note nearest the point at which you enter it. Shown below, the voice text being entered is attached to the last note in the measure.



Notice, however, that if the first three notes are cut and pasted after the last note, the text remains with the same note (now at the beginning).



Voice text is displayed with the note on any staff and in any view. Voice text flows, cuts, copies, and pastes with the note. Voice text behaves in the same way as an ornament or articulation. For a more detailed explanation, see "Understanding note-specific symbols" on page 75.

To insert voice text:

1 Click the voice text tool to select it.

2 If you are inserting text on a staff that contains multiple voices, press command and the up/down arrow keys to select the desired voice.

If the staff only contains one voice, you can skip this step.

3 Click or drag the text cursor above or below the note to which you wish to attach the text.

This creates a new text box. If the note you are attaching the text to is crowded by other notes, avoid attaching the text to the wrong note by clicking directly on top of the notehead. The text box will appear just above the note, and you can reposition it after you type in the text.

4 Type the desired text in the text box.

5 Complete the insertion by clicking anywhere outside the text box.

6 To adjust the position of the text box, drag it. To adjust the size of the text box, select it and drag one of its handles.

The text box will remain with the note and maintain its orientation to the position of the note within the measure.

STAFF TEXT

Staff text is text that gets "attached" to a staff at the measure where you enter it. It appears with the staff at the measure in all views. It remains attached to the measure over which it is inserted, regardless of the notes or rests in the measure.

To insert staff text:

1 Click the staff text tool to select it.

2 Click or drag the text cursor above or below the measure to which you wish to attach the text.

3 Type the desired text in the text box.

4 Complete the insertion by clicking anywhere outside the text box or by pressing the enter key.

5 To adjust the position of the text box, drag it. To adjust the size of the text box, select it and drag one of its handles.

A staff text box remains with its measure and maintains its orientation with respect to the staff.

SYSTEM TEXT

In Mosaic, a staff system consists of one or more staves, just like in a conventional music score. Most of the time, each staff in the system represents one instrument.

For example, music for a solo instrument is notated on a single staff. Mosaic treats the staff as a single-staff system. A traditional piano/vocal score consists of a three staff system: a top staff for the vocal part, and two lower staves for the left and right hand piano parts. In a full orchestra score, a system might have as many as 40 staves or more to notate each instrument in the orchestra.

In Mosaic, you will often create a master score view that contains all the staves in the piece of music grouped into one system. In conjunction with the master score view, you will create other views that contain a subset of staves from the master score. For example, to create individual instrument parts, you will create a single-staff view for each staff from the main score. (In some cases, an instrument part may consist of several staves, as in a piano or harp part.) You also might create sub-scores that display staves from only a certain instrument section, such as woodwinds.

System text is ideal in these types of situations. When you place system text above a system, that text will appear with every staff in the system, no matter what view or system the staff is placed in. In addition, system text always appears at the top of the system, regardless of whether the system consists of one staff or forty staves.

Inserting system text

To insert system text:

1 Scroll the view to the top staff of the system.

2 Click the desired system text tool in the Text palette.

Choose among the following system text items in the Text palette:

Figure 15-1: System text tools in the Text palette.

Use System text for plain text items such as tempo markings like *Allegro non troppo*. Use the other symbols as desired. Repeat signs such as the coda sign, Segno, Dal Segno, and Da Capo can be entered by themselves or with additional text that you enter, such as *D.C. al Segno, Da Capo al Fine*, or *D.C. al segno e poi la Coda*. To insert a metronome marking, see "Inserting a metronome marking" on page 106.

3 Click above the measure which should contain the text to create a text box.

4 Choose the desired font, style, and point size from the Text menu.

You can configure a default font, style, and point size for each type of system text so that you do not need to do so each time you enter it. See the next section, "Configuring the default settings for system text".

5 Type any text that you wish.

6 Click anywhere outside the text box to complete the insertion.

Configuring the default settings for system text

To configure the default font, text style, and point size for one of the system text palette tools:

1 Double-click the desired system text tool.

2 A default settings dialog box appears.

3 While the dialog box is on the screen, choose the desired font, text style, and point size from the Text menu.

4 Choose either the "preceding measure" or "following measure" option.

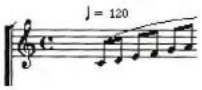
When you click above a barline to insert the staff text, Mosaic needs to know whether to attach the text to the measure before or after the barline. This option also affects which line the text appears when the barline occurs at a system break.

5 Drag the handle of the sample text item to select a default position with respect to the staff.

6 Click OK to confirm your settings or Cancel to withdraw them.

Inserting a metronome marking

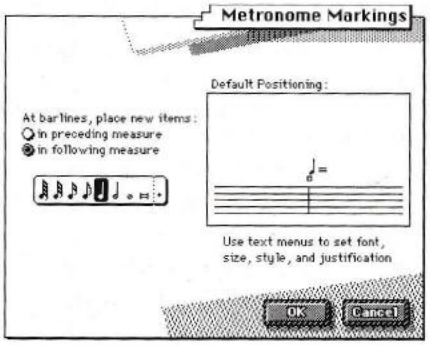
Metronome markings consist of a note duration followed by an equals sign and a number in beats per minute:



To insert a metronome marking:

1 Double-click the metronome marking icon in the Text palette as shown in Figure 15-1.

A dialog box appears.



2 Select the desired note duration.

Please note: the sample metronome marking in the box does not change duration, so don't be concerned that it doesn't change when you select a duration other than a quarter note.

3 Select the desired font, text style, and point size from Text menu.

4 Drag the handle of the sample marking to the desired position with respect to the barline.

5 Choose either the "preceding measure" or "following measure" option.

When you click above a barline to insert the staff text, Mosaic needs to know whether to attach the marking to the measure before or after the barline.

6 Click OK.

7 Click above the measure in which you would like to insert the metronome marking.

A note of the duration you selected appears, along with an equals sign.

8 Type the desired number for the metronome marking.

9 Click anywhere outside the text box to complete the insertion.

Deleting system text

To delete system text:

1 Click the text to select it.

2 Press the delete key or choose Cut or Erase from the Edit menu.

Adjusting the position of system text

To adjust the position of system text, drag the text box to the desired location.

The adjustment will take effect in all views that contain the system text.

Copying & pasting voice, staff, and system text

A single text box of voice text, staff text, or system text can be copied and pasted.

To do so:

1 Select a single text box.

Click the text once to select the text box. Handles should appear at its four corners. Only one text box can be copied and pasted at a time.

2 Choose Cut or Copy from the Edit menu.

The text is placed on the Clipboard.

3 Indicate the location where you would like to paste.

For voice text, select the note to which you would like to attach the voice text. For tempo marks, rehearsal marks, staff text, or system text, place the insertion cursor in the staff where you would like to paste the text.

4 Choose Paste from the Edit menu.

The text is pasted above (or below) the staff at the same height and position from where it was copied or cut.

PAGE TEXT

Page text is text that is anchored to a specific position on a page. It does not flow with music, and it is unaffected by the positions of staves or other musical symbols. It remains on the page in the exact position at which you insert it or move it.

Because its position is defined by its location on the page, page text cannot be entered or displayed in a galley view.

Page text is completely flexible. It can be placed anywhere on the page. It can consist of any amount of text, and the text can be displayed in any font, style, point size, and justification.

Examples of page text are:

- Manuscript title, subtitle, composer, date, notes, etc.
- Headers and footers
- Page numbers
- Copyright notice
- Staff names
- Exercise instructions

Inserting page text

To enter page text:

1 Go to the page in a page view on which you wish to insert the text.

If you want the text to appear on a single page, such as on a title page, scroll the view window to that page. If you want the text to appear in all pages in a view, such as for a header, footer, or page number, open the page template on which the pages in the view are based.

2 Choose the desired font, style, and point size from the Text menu.

3 Click the page text tool from the Text palette.

4 Click or drag at the desired location to create a text box.

5 Type the desired text.

6 Complete the insertion by clicking anywhere outside the text box.

Deleting page text

To delete page text:

1 Click the text to select it.

2 Press the delete key or choose Cut or Erase from the Edit menu.

Cutting, copying, and pasting page text

To cut or copy page text:

1 Click the text to select it.

2 Choose Copy or Cut from the Edit menu.

To paste page text:

1 Cut or copy one or more page text boxes.

2 Scroll to the page on which you wish to paste.

3 Choose Paste from the Edit menu.

☛ Page text cannot be pasted into a galley view.

When page text is pasted, it is placed at the same location from which it was cut or copied. This is useful for duplicating headers and footers. See "Creating running headers and footers" on page 108.

Creating running headers and footers

To create a running header and/or footer, or any text that appears on every page in a view, you can either:

1. Insert header/footer page text on one page and the copy and paste it onto all the other pages

OR

2. Insert the header/footer page text on a page layout template and then use the layout template when creating new pages. For information about creating and using page layout templates, see "Using page layout templates" on page 161.

Although option 1 may be easier in the short run, its main drawback is that each instance of the header, footer, or page number is separate from the other pages. For example, if you decide to reposition the header or footer, you will either have to reposition it on every page, or reposition it on one page and then recopy it to all other pages. Therefore, use option 1 only with documents that consist of a few pages, where changing all the pages will only take a moment.

To replicate page text as described in option 1 above:

1 Insert the header, footer, and/or page number on the first (or any) page in the view.

2 Position the text exactly where you want it on the page.

3 Click the page text to select it.

☛ Be sure you select the entire text box, such that its handles become visible. Do not select the text inside the text box.

4 Choose Copy from the Edit menu or press command-C.

5 Click the page scroll arrow in the horizontal scroll bar at the bottom of the view window to scroll to the next page.

6 Choose Paste from the Edit menu or press command-V.

The text automatically appears at the same location as it was copied from, so you don't have to adjust it to match the original page.

7 Repeat steps 5. and 6. until you have reached the last page in the view.

Creating page numbers

Page text is used to create page numbers.

Page numbers are handled in the same manner as running headers and footers as described in the previous section. The only difference is that you need to insert a special page number character that automatically displays the proper page number for the current page.

Before you follow the procedure below for inserting page numbers, review options 1 and 2 in the section "Creating running headers and footers" on page 108.

To insert the page number character:

1 Go to the first page in the view, or go to the appropriate template page.

If you do not know on which page you want to insert the page number, review the previous section.

2 Choose the desired font, style, and point size from the Text menu.

3 Click the page text tool from the Text palette.

4 Click or drag at the desired location on the page to create a text box.

5 Choose Insert page # from the Text menu.

6 If desired, type any additional text before and/or after the page number.

7 Click anywhere outside the text box to complete the insertion.

8 If you inserted the page number on a template page, apply the newly modified template page to any pages that are based on it.

9 If you inserted the page number on the first page of a regular view, follow the procedure in the section "Cutting, copying, and pasting page text" on page 108 to replicate the page number on the rest of the pages in the view.

Creating staff names

Page text is used to create staff names. Create them by typing page text next to each staff on the template page on which you will be basing your score.

☛ Most often you'll want to place the full staff names on the first page and abbreviate names on each subsequent page. In this procedure, enter the full names on the first page in the view. See the next section for how to obtain abbreviated names on subsequent pages.

The procedure below can be done on a page template or a body page in a regular page view. If you build a regular body page with staff names, you can create a page template from it at any time.

To create staff names:

1 Scroll to the first page in the view.

2 If necessary, choose Show Layout from the view window mini-menu and drag the left page margin to the right to make room for the staff names.

Be sure to select Hide Layout to exit layout mode when you are finished with this step.

3 Click the page text palette tool.

4 Choose the desired font, size, and style for the staff names.

5 To make the staff names justify to the left edge of the staff, choose Justify from the Text menu and select the Right option.

6 Drag a text box out next to the left of the first staff.

7 Type in the desired text.

To indicate multiple parts on a single staff, use the return key to place text on separate lines as shown:

8 Complete the insertion by clicking anywhere outside the text box.

9 Select the staff name text box.

10 Choose Copy from the Edit menu.

11 Choose Paste from the Edit menu.

This pastes a copy of the text box back onto the page exactly on top of the original text box.

12 Hold down the shift key and drag the page text box down to the next staff.

This places the pasted text box next to the second staff. The shift key constrains dragging so that the text box lines up vertically with the original one.

13 Repeat steps 11 and 12 above until all staves have the name next to them.

14 Double-click each name and change it to the desired name for that staff.

Abbreviating staff names on body pages

Often, full instrument names are used on the first page only. On subsequent body pages, the instrument names are abbreviated. To create abbreviated staff names, you can copy the page layout of the page that has the full names, paste it onto the second page, and abbreviate the names on the second (and all subsequent) pages.

The procedure below can be done on a page template or a body page in a regular page view. If you build a regular body page with staff names, you can create a page template from it at any time.

To abbreviate instrument names on body pages:

1 Scroll to the first page in the view (or any page that contains the full staff names).

2 Choose Show Layout from the view mini-menu.

3 Choose Select All from the Edit menu.

This selects the entire page layout, including the staff names. To indicate this, a dashed line appears around the edge of the page.

4 If the view does not have a second page, add a second page to the view.

See "Adding pages to a page view" on page 40 for more information.

5 Scroll to the second page in the view.

6 Choose Paste from the Edit menu.

This pastes the layout onto the page, including the staff names.

7 Double-click each staff name and type in the desired abbreviated name.

8 To adjust the margin and the system margin, choose Show Layout from the mini-menu and drag the margin lines.

9 To adjust the position of all the abbreviated staff names, drag a selection box over them to select them and drag them to the desired position.

Making staff names or abbreviations appear on other pages in the score

To make the staff names appear on another existing page in the score:

1 Choose Show Layout from the mini-menu.

2 Choose Select All from the Edit menu.

This selects the entire page layout. To indicate this, a dashed line appears around the edge of the page.

3 Choose Copy from the Edit menu to copy the layout.

This copies the entire layout.

4 Scroll to the page on which you want the names to appear.

5 Choose Paste from the Edit menu.

6 Repeat this procedure for each page in the score.

If you have a long document, see "Regenerating pages based on a template" on page 162 for information about how to quickly apply a layout to all pages in a score.

If you have just started the score and have not created other pages yet, see "Using page layout templates" on page 161 for information about how to save the page with the staff name abbreviations as a page layout template which you can use as a model page from which to create new pages in the score.

Centering a page title, subtitle, or other text

You can easily center a page title or other text as follows:

1 Choose Show Layout from the page view mini-menu to display the margins of the page.

2 Click the Page Text palette tool.

3 Drag a text box across the top of the page (or another vertical position for other text such as footers), beginning at the left margin and extending all the way to the right margin.

4 Choose Justify from the Text menu and select Center.

5 Choose the desired font, size, and style for the title text.

6 Type the title text.

7 (Optional) To add a subtitle, press return, select a different point size, style, and font (if desired) and type the subtitle.

8 Complete the insertion by clicking anywhere outside the text box.

CHAPTER 16 L

This chapter explains

- Type lyric text and
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- Type lyrics in the ly
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- Type lyrics directly
- Edit and change ly
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- Work with multipl
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UNDERSTANDING

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CHAPTER 16 Lyrics

This chapter explains how to:

- Type lyric text and then automatically flow the syllables and words beneath the notes in a voice
- Type lyrics in the lyric text window, which provides a standard text editing environment
- Type lyrics directly on the staff
- Edit and change lyrics, either on the page or in the lyric text window
- Work with multiple lines of lyrics
- Set the font, point size, and style of all the lyrics, a single word or syllable, or any portion of lyric text

Lyric text is specifically designed for the purpose of centering syllables and words in a line of text below each note in a voice. If you need to insert a single word or phrase, such as a tempo indication, or if you are not sure if you should use lyric text for your purposes, see summary of the five different types of text at the beginning of chapter 15, "Text".

UNDERSTANDING LYRICS

In traditional vocal scores, lyrics are syllables and words that accompany notes in order to indicate the word or syllable to be sung. Lyrics are usually displayed below (or sometimes above) the staff on which the notes are displayed, and each lyric word or syllable is centered below (or above) its note.

When composing, lyricists can develop lyrics independently from the music or together with the music.

Mosaic allows you to enter lyrics either way. You can type in lyrics directly on the page below the notes, or you can type the lyrics in a self-contained lyric text window, just like you would in standard text editing software such as MacWrite. In fact, the lyric text window is like having MacWrite built in to Mosaic: it's a separate text editing window in which you can type, backspace, cut, copy, and paste, and change the format of your lyric text. The lyric text window also allows you to see all the text together in one window.

In Mosaic, a body of text in a lyric window is called a *lyric*. It consists of an independent line of text--syllables and words--which can be applied to the notes in a voice, just as they do in a traditional score. The lyric text is assigned to a voice, and then the text is displayed below (or above) the notes of the voice on a staff in the score. Each word and syllable is centered below (or above) its corresponding note: the first word or syllable is centered below the first note in the voice, the second word under the second note, and so on.

Mosaic can automatically line up the words with the notes for you, skipping rests so that the next word appears under the next note, rather than the rest. You can override the auto-flow of the lyrics at any time, which allows you to adjust the way in which the lyrics flow with the notes and skips rests.

When typing in lyrics, you separate syllables and words as you naturally would: with a space or a dash. When you split up a single word by separating each syllable with a dash, Mosaic centers the dash between the syllables and the notes.

OVERVIEW OF HOW TO ENTER LYRICS

In general you will find it most convenient to enter lyrics in the lyric text window because of its ease with text editing and powerful auto-flowing capability. Below is an overview of the process to enter lyrics using the lyric text window.

1. Create a lyric in the Lyrics window

2. Open the lyric text window

3. Type the text in the lyric text window

4. Automatically or manually flow the lyrics through the voice

5. Adjust the auto flow to obtain the desired placement of the syllables and words with the notes in the voice

6. Make minor additions, deletions, and changes to the text by editing the lyric text directly on the staff

These procedures are discussed in the next few sections.

CREATING A LYRIC

A lyric is a single line of text that can be applied (automatically flowed under or over) the notes in a voice.

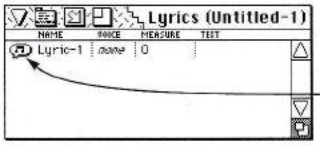
To create a lyric:

1 Choose Lyrics from the Windows menu.

The Lyrics window appears.

2 Add a lyric by choosing Add from the Lyrics window mini menu.

The lyric appears with an icon and name.

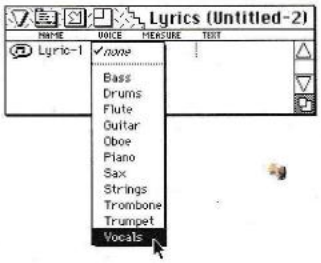


Drag the icon to rearrange the lyrics in the list when you have more than one lyric.

3 (Optional) Click the name to pop-edit the name of the lyric.

The name appears only in this window and the status bar in the bottom of the view window, so consider it to be nothing more than a reference for you.

4 Choose the voice to which you want the lyrics to apply from the pop-up menu in the Voice column next to the lyric name.



5 If you want the lyrics to start in a measure other than measure 1, type in the measure number in the Measure column.

For example, the lyrics may start after an introduction or pick up measure.

You have just created a lyric. The next two sections explain how to open the lyric window and begin typing in text.

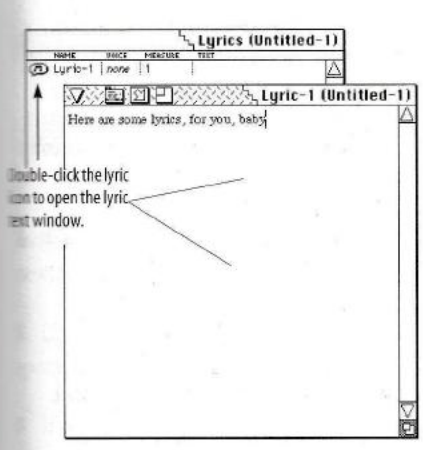
OPENING A LYRIC TEXT WINDOW

A lyric text window is the place where you type the lyrics (syllables and words).

To open a lyric text window:

1 If it isn't already visible, open the Lyrics window (or bring it to the front) by choosing Lyrics from the Windows menu.

2 Double-click the lyric icon next to the name to open the lyric text window.



3 (Optional) If desired, you can close the Lyrics window.

You can work in the lyric text window without having the Lyrics window open.

TYPING IN LYRIC TEXT

Once you have created the lyric and opened the lyric window, you are ready to begin typing in lyric text.

Before doing so, you may want to position the lyric text window in front of, or next to, a view that displays the notes in the voice. This allows you to see the text flow beneath the notes.

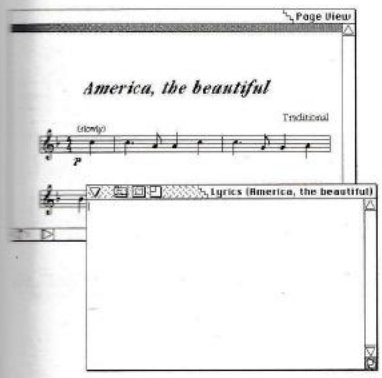


Figure 16-1: Place the lyric text window in front of (or next to) a view showing the voice to which the lyrics will be added so you can observe how text flows beneath the notes.

Controlling text flow manually or automatically

Before you enter lyric text, you should decide whether you would like to control the text flow manually or automatically. (For an explanation of what text "flowing" is, see "Understanding lyrics" on page 113.) Text flow is controlled by the following two rules:

1. A space (or a dash) causes the text immediately after it to jump to the next note

2. A tab causes the text immediately after it to jump to the beginning of the next measure

For example, if you type a word, and then a space, the next word you type will be applied to the next note. If you type a tab, the next word you type will be applied to the first note in the next measure.

Flowing text automatically is much easier than doing so manually because you don't have to keep track of rests, barlines, and tabs. You can simply type words with spaces in between (as you normally would when typing text), and insert dashes between syllables where desired. The Auto-flow command matches each word (or syllable) with a note, enters extra spaces to skip rests, and enters tabs wherever barlines fall in the text.

If you flow text manually, you need to keep track of where rests and barlines fall in between the words and syllables so that you can type an extra space where necessary to skip a rest and a tab where necessary to start a new measure.

Most of the time, you will find it much easier to flow text automatically. You might find that when making adjustments and fine-tuning the flow of the text, you might prefer to do so manually.

These two methods are explained in the next two sections.

Entering lyric text and flowing it automatically

To enter lyric text and flow it automatically:

1 (Optional) Position the lyric text window in front of (or next to) a view that displays the notes in the voice you want to flow text beneath.

2 Make sure that the lyric window is the active window.

Click its title bar to activate it.

3 Choose the desired text font, point size, and style from the Text menu.

You can change the font attributes later, if necessary, so this step is not critical.

4 Type in the first word or syllable.

5 To enter the next word or syllable, type a space (or dash) and then type the word.

☛ Suggestion: you might find it easiest to type words as whole words first and then go back afterwards to insert dashes between syllables where necessary. It's easier to type whole words than to stop and figure out when to type a dash!

6 Keep repeating steps 4 and 5, separating each word or syllable with either a space or a dash. Don't worry about entering extra spaces for rests or tabs for measures.

Mosaic provides a way to extend a line for a sustained syllable or word. See "Sustaining a word or syllable with an underline" on page 117.

7 When you are done, or if you'd like to see the text beneath the notes, flow the lyric text to see it lined up with the notes.

Turn to the section called "Auto-flowing lyric text" on page 119 for detailed information.

Entering lyric text and flowing it manually

To enter lyric text and flow it manually:

1 (Optional) Position the lyric text window in front of (or next to) a view that displays the notes in the voice you want to flow text beneath.

2 Make sure that the lyric text window is the active window.

Click its title bar to activate it.

3 Choose the desired text font, point size, and style from the Text menu.

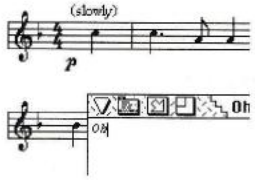
You can change the font attributes later, if necessary, so this step is not critical.

4 Place the insertion cursor where you would like to begin inserting text.

If the lyric has no text yet, the cursor will appear in the upper left corner of the window.

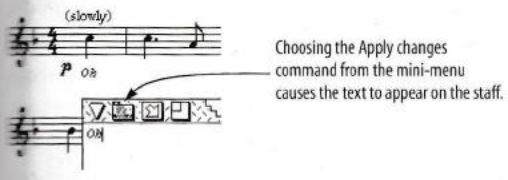
5 Type the first word or syllable.

An example is shown below. The lyric text window is superimposed on top of a view showing the voice that the text will flow under.



6 Choose Apply changes from the lyric text window mini-menu.

This causes the first word to appear on the staff, so that you can see where you are beginning.



7 If a note is next, type a space (or a dash) and the next word or syllable.

8 If a rest is next, type a space and then an extra space to skip over the rest.

9 If a barline is next, press tab.

In the example above, it would be necessary to type a tab after the word *Oh*.

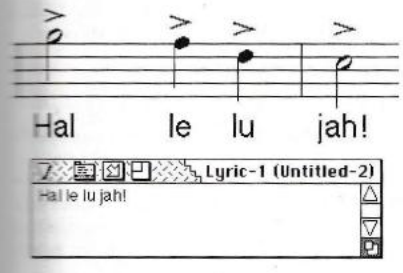
10 If at any time you would like to make the text you are typing appear below the staff, choose Apply changes from the mini-menu.

11 Keep repeating steps 7 through 10 until you are finished entering the text.

Separating syllables and words with a space

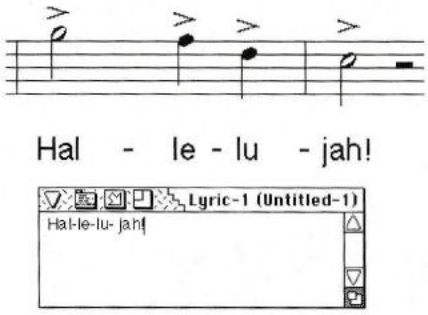
When typing lyric text, there are two ways to separate syllables and words: type either a space between them or a dash.

In the example below, spaces separate the four syllables in the word *Hallelujah*.



Separating syllables and words with a dash

Type a dash to separate syllables in a word, as in this example:



☛ Notice that Mosaic automatically centers dashes between the notes and syllables. When the word crosses a barline, Mosaic automatically centers the dash below the barline.

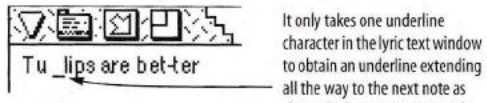
Typing a non-breaking dash or space

To type a non-breaking dash or space (one that doesn't separate the word), hold down the option key while typing the dash or space.

Sustaining a word or syllable with an underline

When a word or syllable sustains across more than one note, the most commonly used convention is to extend an underline from the end of the word or syllable across the notes for which it should be sustained, as shown below for the word *tulips*:

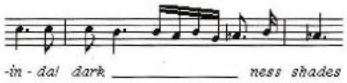
This has been accomplished by typing *one* underline character (_) immediately after the syllable *Tu*, as shown below:



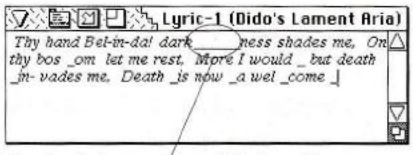
☛ *Note that it only takes one underline character to get a line that extends all the way to the next note!* Don't type more than one.

Extending an underline across several notes

If a syllable or word should be sustained over several notes, type one underline character for each note. In the example below, the word *dark* is to be held for six notes: the dotted eight, the four sixteenths, and the dotted eighth.



To accomplish this, six underline characters have been entered immediately after the word dark in the lyric text window:

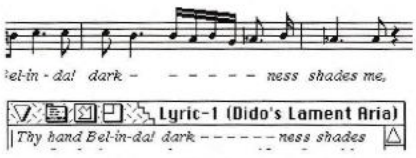


These six underlines extend the underline through the six held notes for the word *dark*.

☛ The underline extension automatically extends over rests.

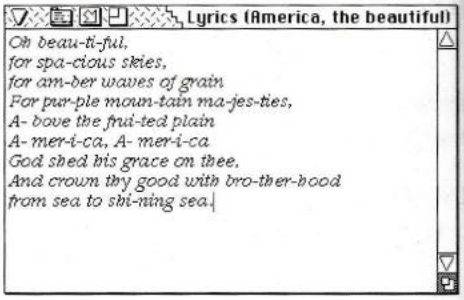
Sustaining a syllable or word with dashes

If you prefer dashes centered below each note instead of a continuous line, enter a non-breaking dash (option-dash) followed by a space for each note:



To display a separated dash beneath each note, type option-dash (to enter a non-breaking dash) followed by a space for each note. This example has six option-dashes, one for each of the six notes.

You can use the return key in the lyric text window to arrange the text into lines without affecting the flow of the text.



Summary of what to type to control lyric text flow

Here is a summary of what to type in order to get various results when typing lyric text.

To do this:	Do this:
To center a word or syllable under a note	Type a single space before and after the word, the same as you normally do when typing text
To center a syllable under a note and display a centered dash between it and the next syllable	Separate each syllable with a dash (-), i.e. "Hal-le-jul-lah!"
To type a non-breaking dash (a dash that won't separate the word)	Hold down the option key and type a dash
To type a non-breaking space (a space that won't separate the word)	Hold down the option key and press the space bar
To extend an underline from the current word or syllable to the next note	Type an underline character (_)
To sustain a syllable or word with a dash under the next note	Type a non-breaking dash (option-dash) followed by a space under the next note
To begin flowing in the next measure	Type a tab

AUTO-FLOWING LYRIC TEXT

After you have entered new lyric text, or if you have made significant changes to existing lyric text, you need to use the Auto-flow command in the mini-menu in the lyric text window to re-flow it in order to see it on the staff.

"Flowing" consists of the following process: it begins at the current location of the insertion cursor in the lyric text window. From there, the first word or syllable to the right of the cursor is placed under the first note in the voice, the second word or syllable under the second note, and so on. Flowing continues according to the text, spaces, dashes, and underlines that you have typed.

Text flows according to the following two rules:

1. A space (or a dash) causes the text immediately after it to jump to the next note or rest

2. A tab causes the text immediately after it to jump to the beginning of the next measure

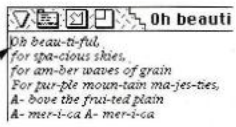
Auto-flow command in the lyric text window mini-menu inserts extra spaces so that no text falls below a rest (but you can override this if you want simply by deleting the extra space), and it automatically inserts tabs where the barlines fall.

To auto flow the lyrics:

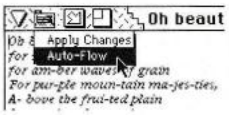
1 Place the insertion cursor at the point at which you would like to begin auto flow.

If you would like to auto flow all the lyrics, place the insertion cursor at the very beginning of the lyric window.

To auto flow all the text, place the insertion cursor at the very beginning of the lyric text window.



2 Choose Auto-Flow from the lyric text window mini-menu.



☛ Please note! If you have inserted extra spaces or removed spaces by hand, Auto-flow will eliminate your modifications. Be careful when reflowing to preserve sections in which you have customized the flow.

EDITING LYRICS ON THE STAFF

Once you have entered lyrics in the lyric text window and flowed them, you can make adjustments to the text directly in a view. You can:

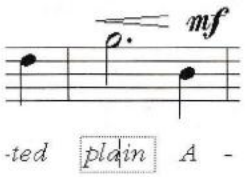
- Add, delete, or edit text
- Insert or remove spaces, dashes, and underlines
- Change the font, point size, and style of any portion of the text, including all the text

Adding, deleting, and editing text

To add, delete, or otherwise edit lyric text in a view:

1 Click the text to place an insertion cursor in the text.

Mosaic activates a text box for the syllable or word that you click.



2 Make the desired change(s) in a standard fashion.

Double-click a word to select the entire word. Use the delete key as usual. Use the arrow keys to move the insertion cursor left and right and to the previous or next syllable or word.

3 When you have completed the edit, click anywhere outside the text box, or use the arrow keys to move to the next or previous syllable.

If you have made any changes that alter the auto-flow, the text reflows when you complete the edit.

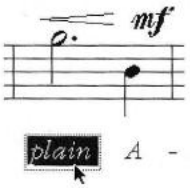
Changing the flow when editing lyrics

If you insert or delete spaces, dashes, or underlines, they do not affect the auto-flow immediately as you type them. Instead, they take effect when you exit the current text box, either by using the arrow keys to scroll to the next or previous box, or by clicking outside the text box to complete the edit.

Changing the font, point size, and style

You can quickly change the font, point size or style of a single word, syllable, or portion of a word. To do so:

1 Double-click the syllable or word to select it.



If you are selecting only a portion of a word, drag over the desired characters.

2 Choose the desired font, point size, and style from the Text menu.

This procedure works for single words. To change the font, size, or style of more than one word, or all the text in the voice, do so in the lyric text window as described in "Editing lyrics in the lyric text window" on page 120.

EDITING LYRICS IN THE LYRIC TEXT WINDOW

Once you have entered lyrics in the lyric text window and flowed them, you can make adjustments to the text in the lyric text window. You can:

- Add, delete, or edit text
- Insert or remove spaces, dashes, and underlines
- Cut, copy, and paste text
- Change the font, point size, and style of any portion of the text, including all the text

Adding, deleting, and editing lyric text

To add, delete, or otherwise edit text in the lyric text window, use the actions listed in the table below to edit lyric text.

To do this:	Do this:
Move the text cursor within the text box	Press the arrow keys
Delete a character	Position the cursor to the right of it and press the delete key
Select a word	Double-click the word
Select several words or sentences.	Drag over them inside the text box
Change the font, point size or style	Select the text and choose the desired font, size, and style in the Text menu
Apply the changes you have made	Choose Apply changes from the lyric text window mini-menu, close the window, or bring another window to the front

Cutting, copying, and pasting lyric text

To cut or copy text in the lyric window, select the text to be cut or copied and choose Cut or Copy from the Edit menu.

To paste text into the lyric window:

1 Copy the text into the clipboard using Cut or Copy.

2 Place the insertion cursor at the point where you would like to paste, or select text to be replaced.

3 Choose Paste from the Edit menu.

Applying changes to the staff

When you have completed the changes in the lyric text window and wish to see them take affect in a view, choose Apply changes from the lyric text window mini-menu.

☛ If you have made major changes, you may want to use the Auto-flow command to more easily handle rests and barlines.

Setting the font, point size, and style of lyric text

Use the lyric text window to apply font attributes such as typeface, point size, and style to lyric text. You can set the font attributes for as little as a single character or as much as the entire lyric.

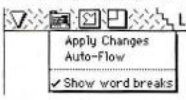
To set the font attributes of lyric text:

1 Select the text.

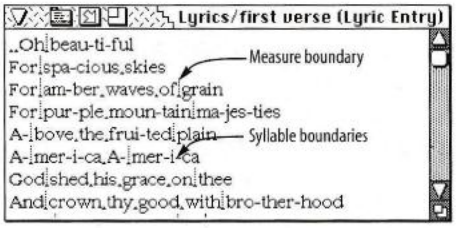
To select a portion of a word, drag over the characters. To select an entire word, double-click it. To select several words, drag over them. To select all the text, drag over it or choose Select All from the Edit menu (or press command-A).

2 Choose the desired font, point size and style from the Text menu.

Displaying syllable and measure boundaries



The Show Word Breaks mini-menu command appears in the Lyric text entry mini-menu. When this menu item is checked, syllable and measure boundaries are displayed in the lyric text entry window as shown below:

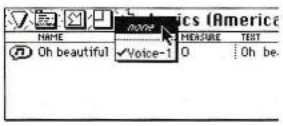


REMOVING LYRICS

There are several ways to remove lyrics, depending on your intentions.

If you want to delete lyric text in order to replace it with different text, select it in the lyric text window and choose Cut or Erase from the Edit menu, or press the delete key.

If you want to remove lyric text entirely and not replace it, you can either delete the lyric in the Lyrics window, or choose None from the voice assignment pop-up menu in the lyrics window.



If you want to temporarily remove the text from the voice, choose None from the voice assignment pop-up menu in the Lyrics window.

ADJUSTING A LYRIC LINE'S DISTANCE FROM THE STAFF

To adjust the distance of a lyric from the staff:

1 Choose Show Layout from the view mini-menu.

2 Drag the lyric handle up or down to the desired position.

☛ If you adjust the vertical position of a lyric line in a page view, the adjustment will not affect that lyric line on other systems. This allows you to make adjustments on an individual system without affecting other systems.

PLACING LYRICS ABOVE THE STAFF

To place a lyric above a staff:

1 Choose Show Layout from the view mini-menu.

2 Drag the lyric handle to the desired position above the staff.

☛ In a galley view, this is only necessary once. However, in a page view, you'll need to do this for each system in the score.

HANDLING MULTIPLE VERSES

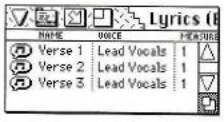
Vocal music often has several verses. To accommodate this, Mosaic allows you to assign more than one lyric to a voice–there is no limit. And you can vertically position them in any order above or below the staff.

To enter multiple lines of lyrics:

1 Create a separate lyric for each line of text.

2 Assign each of the lyrics to the same voice.

In the example shown below, notice that three separate verses have been created and assigned to the voice called *Lead Vocals*.



3 Position each verse by choosing Show layout mode from the view window mini-menu and dragging its position vertically.

PRINTING LYRICS

To print the contents of a lyric text window:

1 Select all the text in the lyric text window.

2 Choose Copy from the Edit menu.

3 Go to the View window and choose Add page view.

4 Double-click the page view icon to open the page view window.

5 Click the page text icon in the text palette.

6 Drag a text box in the page view.

7 Choose Paste from the Edit menu.

8 If necessary, arrange the text and the text box as desired.

9 Choose Print from the File menu.

EDITING NOTES THAT HAVE LYRICS

If you cut or paste notes in a voice that already contains lyrics, you need to re-flow the text (adjust the positions of the measure breaks) to accommodate the changes in the notes. This can be done either manually (see "Entering lyric text and flowing it manually" on page 116) or automatically (see "Entering lyric text and flowing it automatically" on page 116).

CHAPTER 17

This chapter exp

- Format chord
- Enter chord sy playing them in
- Teach Mosaic MIDI
- Change, move symbols
- Transpose cho

For information Mosaic, see chap

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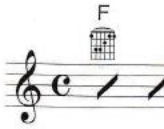

THE CHORD SY

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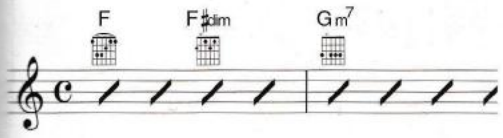
CHAPTER 17 Chord Symbols

This chapter explains how to:

- Format chord symbols in a way that you prefer
- Enter chord symbols by typing them in or playing them in from a MIDI controller
- Teach Mosaic new chords by playing them from MIDI
- Change, move, and otherwise edit chord symbols
- Transpose chord symbols

For information about other types of text in Mosaic, see chapter 15, "Text".

Chord symbols can be entered from the Macintosh keyboard. They can also be entered by playing them in from a MIDI keyboard. This chapter was written with the assumption that you are already familiar with MIDI input in Mosaic. If you are not and would like to enter chords via MIDI, you may find it helpful to review chapter 34, "MIDI Recording and Playback".



THE CHORD SYMBOL TOOLS

Mosaic provides two chord symbol tools in the text palette. They let you enter transposable chord symbols above any voice in any staff. One tool enters chord symbols as text alone, while the other enters the text accompanied by the appropriate guitar fret board chart.

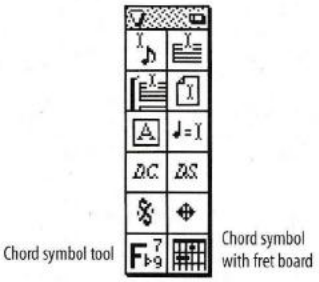


Figure 17-1: The chord symbol tools in the Text palette.

CONFIGURING CHORD SYMBOLS

Before you begin entering chord symbols, you will probably want to make adjustments to their default appearance, including the font used, default distance above the staff, etc. As usual in Mosaic, double-click the chord or Fretboard symbol tool to open the Chord Symbols or Fretboard Symbols dialog box.

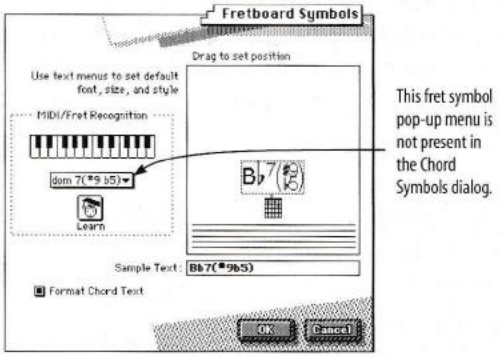


Figure 17-2: Fretboard Symbol dialog. Open this dialog box by double-clicking the fretboard symbol tool. The fret board chart is only present when you double-click the fret boardtool in the Text palette. For chord symbols without fretboards, double-click the Chord Symbol tool.

Here is a summary of what you can do in this dialog:

To do this:	Do this:
Adjust the height of the chord text above the staff	Drag it up or down.
Adjust the position of the fret board chart with respect to the chord text	Drag it to the desired location above, below, or next to the text.
Change the font, point size, or style of the chord text	Click the sample chord text above the staff to select it and choose the desired font, point size, or style from the Text menu while the Chord Symbol dialog box is open.
Change the size of the fret board chart (available only with fret tool)	Click the fret board chart to select it and choose the desired point size from the Text menu. You can choose any size you like; for best appearance on the screen and on low-resolution printers, choose a point size of 16, 20, 24, 32, or 40.

The *Learn* button is explained later in this chapter.

The Format Chord Text option

When checked, the *Format Chord Text* option in the Chord Symbol dialog box causes chord qualities to be superscripted as shown below on the left. When this option is unchecked, chord qualities are displayed at the same size as shown on the right

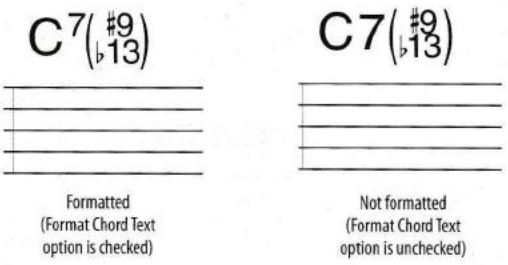


Figure 17-3: Formatted versus non-formatted chord text.

Saving chord symbol settings

Chord symbol settings are automatically remembered in the file.

ENTERING CHORDS

Once you have set the chord symbol settings as desired, you are ready to begin entering chord symbols. You can enter the chords by typing them in or by playing them in from your MIDI controller.

If you would like to play chord symbols in via a MIDI instrument, make sure that Mosaic is successfully receiving MIDI data from the MIDI device before you begin entering chords. For information about setting up MIDI input, see chapter 34, "MIDI Recording and Playback".

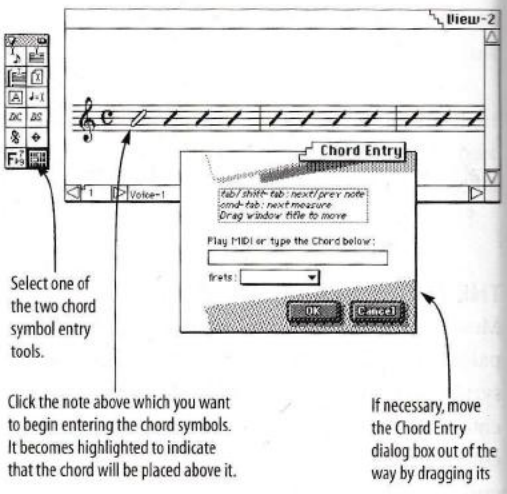
To enter chord symbols:

1 Click one of the two chord symbols tools in the Text palette.

One enters chords without guitar fret board charts; the other enters them with guitar fret board charts.

2 Click on or above the note or rest where you wish to begin entering the symbols.

The note you click becomes selected, and the Chord Entry window appears.



3 If necessary, move the chord symbol window out of the way.

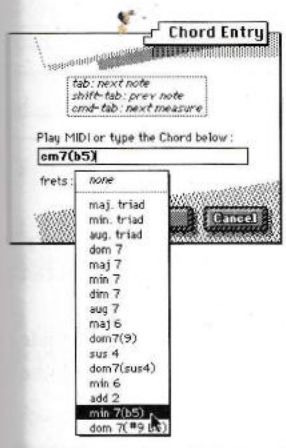
To do so, drag the title of the dialog box to move it.

4 Type in the desired chord, or play it on your MIDI controller.

The chord appears in the text box. For details about typing chords and playing via MIDI, see the following sections in this chapter.

5 If desired, choose a fret board chart for the chord from the pop-up menu provided.

The fret board chart you choose does not affect the chord. For example, the chord text might be "Em/G", but you want the guitar fret board chart to display an "Em" instead. Choose "min triad" from the pop-up menu.



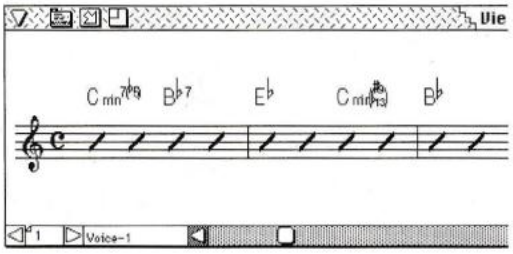
6 To enter the chord symbol you have just typed in, use one of the following methods.

To do this:	Do this:
To enter the chord and proceed to the next note or rest	Press tab
To enter the chord and proceed to the next measure	Press command-tab
To enter the chord and proceed to the previous note or rest	Press shift-tab
To enter the chord and proceed to the previous measure	Press command-shift-tab
To enter the chord and close the chord entry window	Press return or click OK
To cancel chord entry altogether	Press command-period or click Cancel.

7 Use the above keystrokes to move forwards and backwards through the voice.

Mosaic highlights the note that is currently selected for chord entry. If you would like to enter a chord symbol at a position in the measure where there is no note or rest, see "Placing chord symbols on beats where there is no note or rest" on page 130.

8 When you are finished entering the chords, click OK.



TYPING IN CHORD SYMBOLS

In the Chord Entry dialog box, you can pretty much type the chord you want. Mosaic is not concerned about capitalization; it will correctly

interpret the chord regardless of case. For example, if you want to enter B-flat, you can type "bb". Mosaic always stacks chord suffixes that are enclosed in parentheses, brackets, or braces.

Working with chord suffixes

Here is a summary of the things you can do when working with chord suffixes:

Symbol:	Description:	What to type:
♭	A flat	lower case "b" (b)
♯	A sharp	Pound sign (#)
–	Minor sign	Dash (-)
°	A diminished symbol	Shift-option-8
ø	A half-diminished symbol	Option-o
Δ	A major 7 triangle	Option-j
6/9	The 6/9 chord suffix	6/9
/	A diagonal slash for a hybrid chord, inversion, or altered bass	Slash (/)
_	A horizontal slash for a poly chord	Underline
	Any other text	The text itself
	Stacked suffixes within braces	Type the suffixes and enclose them in parentheses, i.e. (#9b13)
	Stacked suffixes within brackets	Type the suffixes and enclose them in brackets, i.e. [#9b13]
	Stacked suffixes with no braces or brackets	Type the suffixes and enclosed them in a « and a », i.e. «#9b13» To get a « symbol, type option-\ To get a » symbol, type shift-option-\

Here are some more examples:

Chord:	What to type:
C7(♯9 ♭13)	C7(*9b13)
C7[♯9 ♭13]	C7[*9b13]
C7♯9♭13	C7*9b13
C7 ♯9 ♭13	C7«*9b13»
	To get a « symbol, type option-\ To get a » symbol, type shift-option-\
A/B	a/b
F/C	f_c
Cmin7♭5/B♭7(♯9 ♭13)	Cmin7b5/bb7(*9b13)

PLAYING IN CHORDS VIA MIDI

When you are entering chords in the Chord Entry dialog box or in the Chord Symbol dialog, you can play them from your MIDI controller. Mosaic analyzes what you play and creates the appropriate chord symbol. Here is a summary of how to get the best results:

To get this:	Play this:
A root chord	The root chord
Triad or seventh chord	Any voicing of the chord with no more than a 5th between the bottom two notes.
Inversion or hybrid chord example: E/G# or A/B	Any chord with a bass note of a minor 6th or more away
Poly chord Example: F C	Any chord with another chord of a minor 6th or more away

To enter a chord via MIDI:

1 Open the Chord entry dialog box (if it is not already open).

To do so, click one of the two chord entry tools and click a note. Or double-click an existing chord symbol and then use the tab and shift-tab keystrokes to move to the desired note.

2 Play the chord on your MIDI controller.

The chord appears in the chord entry dialog.

3 If necessary, choose the desired fret board chart from the pop-up menu.

Try experimenting with many different chords, and use the guidelines provided above.

Teaching Mosaic new chords

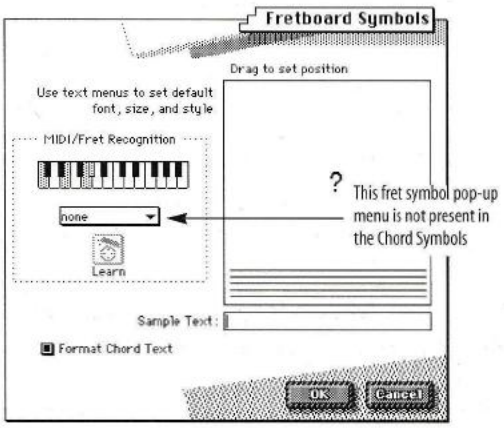
Mosaic may not always recognize the chords you play. If so, you need to teach Mosaic the chord. Once you have done so, Mosaic will recognize the chord in any key.

To teach Mosaic a new chord:

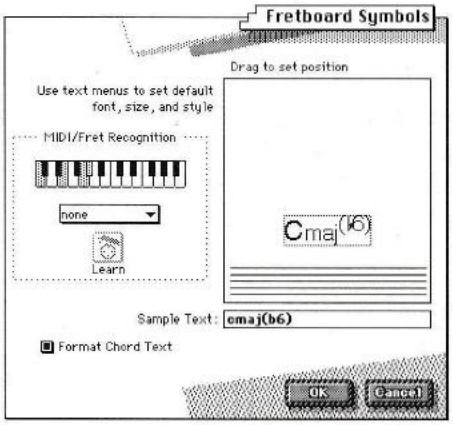
1 Double-click one of the two chord symbol entry tools to open the Chord Symbols dialog box.

2 Play the chord you wish to teach to Mosaic in root position.

You can play it in any key. A question mark appears in the display if Mosaic does not recognize the chord. In addition, the keys you played are indicated by the keyboard diagram:



3 Type in the desired name for the chord in the sample text box.



4 If desired, choose a fret board chart from the pop-up menu provided below the keyboard.

Mosaic will learn the fret board chart as well the chord name.

5 When you have chosen the chord name and fret board chart as desired, click the Learn button.

Doing so causes Mosaic to learn the chord as you have named it.

6 Repeat this procedure for each chord that you wish to teach Mosaic.

You can teach Mosaic as many chords as you like. Remember, you don't need to teach Mosaic standard chords because it already knows them.

7 When you are finished teaching Mosaic new chords, click OK.

Mosaic memorizes the chord and will display the chord text any time you play the chord in any key.

You can play inversions when teaching Mosaic a chord, but if you teach Mosaic the chord in root position, it learns the inversions automatically. If, later on, you discover an inversion that is recognized incorrectly, simply teach Mosaic the specific inversion.

Changing the way Mosaic spells a chord

You can change chord spellings using the learn button as described in the previous section. For example, you may want Mosaic to display "A-7" instead of "Am7" or "Amin7". Just teach Mosaic the new spelling using the procedure in the preceding section.

Including a fret symbol with new chords

As you can see from the procedure in the previous section, you can indicate what guitar fret symbol to use with the new chord. You can teach Mosaic to use any guitar fret symbol with any chord in the same manner. Just type in or play in the chord in the Fret Symbols dialog box, choose the desired fret symbol, and click the Learn button.

Preserving your chord library

Your library of chords is stored in the Mosaic Preferences file, which is located in the System Folder. In System 7, it is placed in the Preferences Folder inside the System Folder. In System 6, it is placed in the top level of the System Folder. We strongly recommend that you regularly make copies of this file so you'll always have a backup of it. By doing so, you won't ever lose your chord library.

EDITING CHORD SYMBOLS

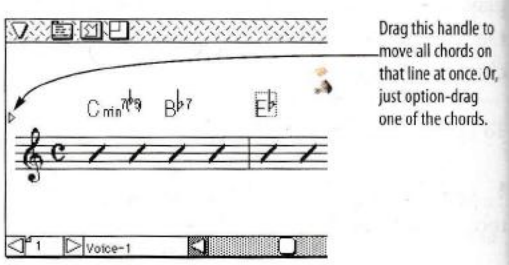
This section covers many aspects of editing chords symbols.

Changing a chord symbol

To edit a chord symbol, double-click the chord root and then make the desired changes in the Chord Entry dialog box.

Moving chord symbols

To move a single chord symbol, drag it. To change the height above the staff of an entire line of chord symbols all at once, option-drag one of the chords. Or, click one to select it and drag the arrow that appears at the end of the line. To bring the chord back to the chord baseline, select it and choose Realign from the Format menu.



Removing a chord symbol

To remove a chord symbol, select it and choose Cut or Erase from the Edit menu, or press the delete key.

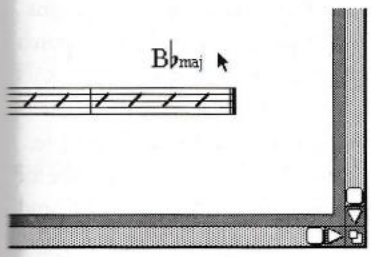
Selecting all chord symbols (or a range)

To quickly select all chord symbols (or any range of symbols):

1 Click the first chord symbol you want to select it.

2 Scroll to the last symbol in the range.

3 Shift-click just to the right of the last symbol you want to select.



Changing the font of existing chord symbols

To change the font of existing chord symbols, select them and choose the desired font, size, and style from the Text menu. Chord symbols are selected in standard fashion, including shift-clicking (see the previous section) and dragging a selection box over them.

Cutting and pasting chord symbols

Chord symbols behave much like voice text when it comes to cutting and pasting. They go with the notes to which they are attached. If you copy and paste the notes to which they belong, the chord symbols go along, too.

Reformatting chord symbols

After you have entered chord symbols, you may decide to format them differently. For example, you may want to superscript the chord qualities by checking the "Format Chord Text" option shown in Figure 17-2 on page 123.

To reformat chord symbols:

1 Make the desired changes to one or both of the chord tools in the Text palette.

See "Configuring chord symbols" on page 123 and "The Format Chord Text option" on page 124. You'll probably want to reformat both so that they are consistent with one another.

2 Select the chord symbols you want to reformat.

See "Selecting all chord symbols (or a range)" on page 128.

3 Command-click the chord tool in the Text palette to apply the new format to the selected chord symbols.

Removing fret board charts from existing chord symbols

To remove fret board charts from existing chord symbols:

1 Select the chord symbols.

See "Selecting all chord symbols (or a range)" on page 128.

2 Command-click the chord tool without fret board charts in the Text palette.

The chord symbols are reformatted using the current formatting of the chord symbol tool without fret board charts. If you want to further modify the formatting of the chords, see the previous section.

Adding fret board charts to existing chord symbols

To add fret board charts to chord symbols:

1 Select the chord symbols.

See "Selecting all chord symbols (or a range)" on page 128.

2 Command-click the fret chord tool in the Text palette.

The chord symbols are reformatted using the current formatting of the fret board chart chord symbol tool. If you want to further modify the formatting of the chords, see "Reformatting chord symbols" on page 129.

TRANSPOSING CHORD SYMBOLS

To transpose chord symbols:

1 Select the chord symbols you wish to transpose. If desired, you can select the chords symbols together with notes.

Select them using the standard selection methods in Mosaic. A chord symbol displays a grey box around it when it is selected.

2 Choose Transpose from the Region menu, choose the desired transposition, and click OK.

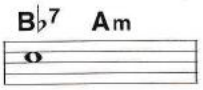
Using chord symbols on a transposed staff

Chord symbols are automatically transposed when the voice to which they are attached is placed on a transposed staff, just like the notes in the voice.

CREATING A SEPARATE VOICE FOR CHORD CHANGES

When dealing with chord changes, you need complete flexibility. For example, you may need to:

- Place chord changes at locations where there is no note or rest, as shown below.

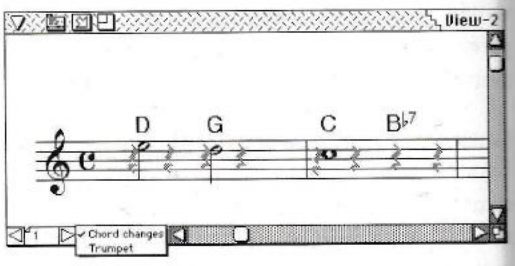


- Display the chord changes over several different staves in one view.
- Display the chord changes in several different views, such as in individual instrument parts.
- Automatically transpose the chord changes in instrument part views for transposing instruments.

All of these tasks can be accomplished by creating a separate voice for the chord changes as described in the following section.

Placing chord symbols on beats where there is no note or rest

When working with chord changes, you will likely run into a situation where the rhythmic locations of the chord symbols you are entering don't match up with the rhythms of the notes in the voice. A common example is when you have several changes occurring over the course of a held note. The way to handle this is to create an extra voice for the staff. Give it a name like "Chord Changes", and insert invisified rests at regular intervals as needed. Then place the chord symbols in the "Chord Changes" voice instead of the voice containing the notes. In the example below, quarter note invisified rests are being used in the whole note bar.



Displaying chord changes over multiple staves and views

You can use the technique described above to display the chord symbols in your score wherever you would like, such as in instrument part views. Just assign the *Chord Changes* voice to the staff over which you would like to display them. If you assign the *Chord Changes* voice to a transposed staff (such as in a part view for a transposing instrument), the chord changes will be automatically transposed to the correct key. Another benefit of this technique is that if you modify the chord changes, the change will automatically be reflected throughout the score.

CHAPTER 18

This chapter explain
menu commands:

- Select a musical sy
- Select small and la
voices
- Determine the voi
- Remove music wi
commands
- Insert music with
commands
- Copy music into t

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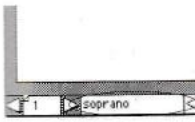


Figure 18-1: Make note of
the voice indicator box at
bar. To change the voice cl
from the pop-up menu, c
down arrow key.

Mosaic allows a gre
editing voices. You

- Copy and paste v

CHAPTER 18 Edit Commands

This chapter explains how to work with the Edit menu commands:

- Select a musical symbol to edit it
- Select small and large regions, and multiple voices
- Determine the voice in which you are editing
- Remove music with the Erase, Cut, and Snip commands
- Insert music with the Paste, Merge, and Splice commands
- Copy music into the Clipboard for pasting

Be sure to see chapter 7, "Undo and Redo" for information about Mosaic's unlimited Undo and Redo capabilities.

Be aware of the voice you are editing

Remember that notes always exist within a voice. When you are cutting, copying, and pasting notes, make note of what voice you are copying from and pasting into by observing the voice status box at the bottom of the view. If you don't pay attention to the voice, you'll start getting unexpected results.

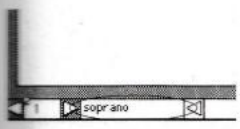


Figure 18-1: Make note of the voice you are currently editing here in the voice indicator box at the left-hand side of the horizontal scroll bar. To change the voice click in the box and choose the desired voice from the pop-up menu, or press the command key and the up or down arrow key.

Mosaic allows a great deal of flexibility when editing voices. You can:

- Copy and paste within a single voice
- Copy and paste from one voice to another
- Copy and paste within multiple voices at the same time

These procedures are discussed in the next few sections.

SELECTING WHAT YOU WANT TO EDIT

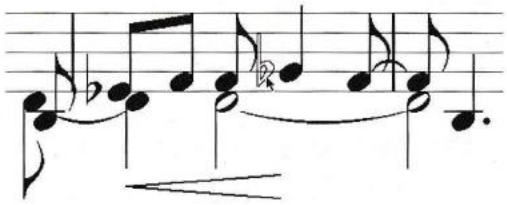
Below is a summary of how to select things for editing.

To select this:	Do this:
A single item (note, rest, dot, grouping, articulation, beam, accidental, etc.)	Click the item once.
Several items that are not next to one another	Shift-click each item.
An entire region of items	Drag a selection box over them.
A large region, either in a single staff or across many staves, that is too large to drag a selection box over	Select a note at the beginning of the region in the upper-most staff, scroll to the end of the region, and shift-click in the lowest staff just to the right of the last item you want to select (See "Selecting large regions" on page 132 for a further explanation.) OR Place the insertion cursor at the beginning of the region and choose Extend Selection from the Edit menu.
All notes and rests within a single voice	Double-click any note or rest in the voice
All items on a page	Scroll to the page in its page view and choose Select All from the Edit menu.
All items in the score	Open a view that contains all staves (and voices) and choose Select All from the Edit menu.

Zooming in to select specific items

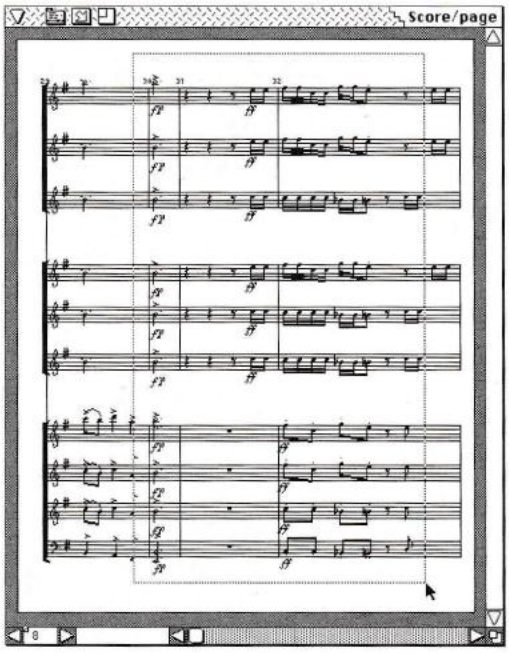
You might find it easier to select items in dense notation by zooming in the display.

To more easily select the flat accidental in the middle of this measure, the display below has been zoomed in to 400%.



Zooming out to select larger regions

One way to select a region is to drag a selection box over the area as shown below. Zooming out in a galley view is useful for selecting long regions of measures.



SELECTING LARGE REGIONS

Mosaic has a several convenient ways to select large regions of music in a score.

Shift-clicking

Think of large regions in a Mosaic score as a rectangle, as shown in Figure 18-2:

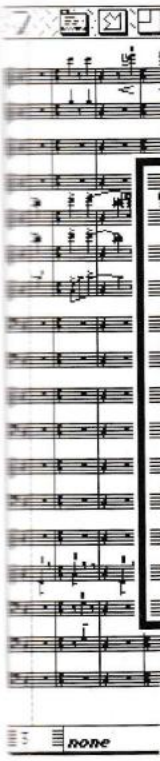


Figure 18-2: Selecting

You can select e
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To select everything wi
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Figure 18-3: Selectir

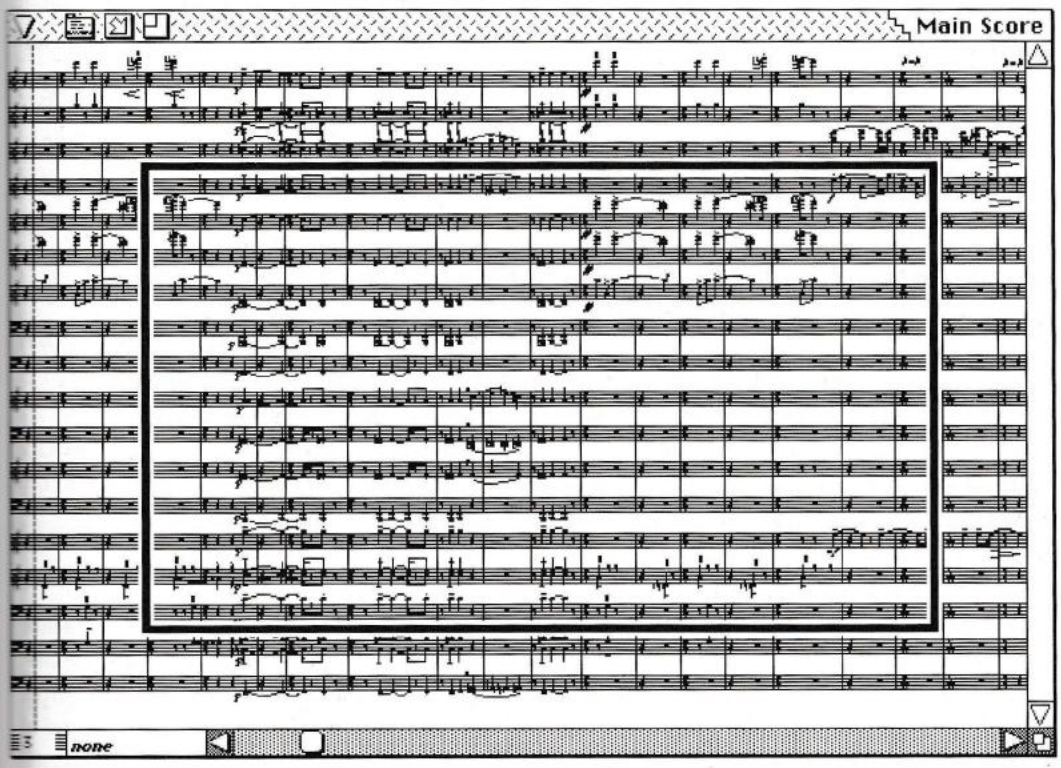


Figure 18-2: Selecting a large region in a score.

You can select everything in this region by placing the insertion cursor in the upper left corner and then shift-clicking in the lower right corner as shown below Figure 18-3. In doing so, you are defining the area you wish to select, including all of the voices vertically between the selection points.

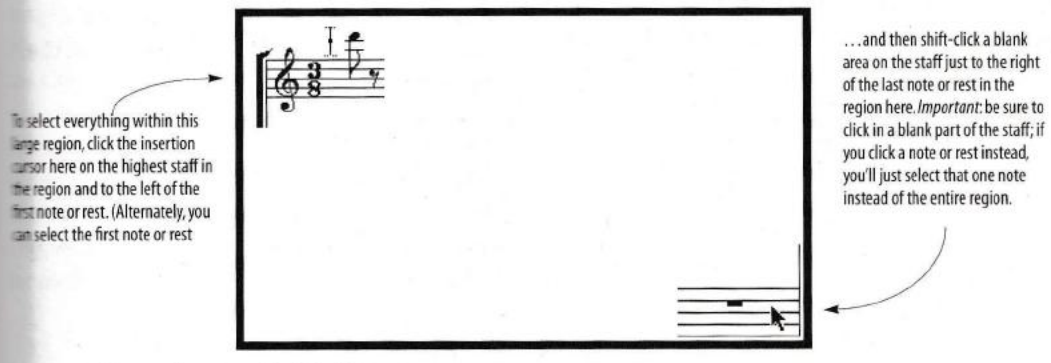


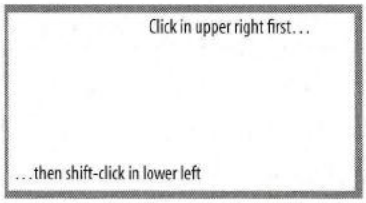
Figure 18-3: Selecting a large region by shift-clicking.

The region can begin and end anywhere, even in the middle of a measure. It does not have to include the entire measure.

Similarly, the region you select does not have to include all staves in the system; it may only contain a portion of the staff system. You can even select a region on a single staff.

If necessary, you can scroll the window as far as needed before you shift-click. If you are in a page view, you can scroll as many pages as necessary. (To avoid lots of scrolling, you can use the Extend Selection command discussed in the next section.)

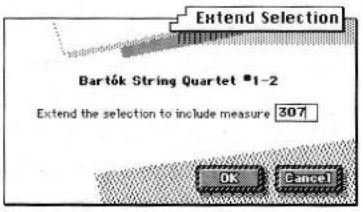
☛ If you want, you can begin the selection in the upper right corner of the region, scroll backwards (to the left) and shift-click in the lower right. As long as you shift click in the *opposite corner* from the currently selected note (or cursor location), you will select everything in between.



If you are selecting a single voice on a staff that has several voices, indicate the beginning of the selection region by clicking a note in the voice you want to select (instead of placing the insertion cursor at the beginning). Then shift-click in the staff at the end of the region as shown in Figure 18-3, or use the Extend Selection command as described in the next section.

Using the Extend Selection command

The Extend Selection command in the Edit menu extends the currently selected region to a measure that you specify. If the insertion cursor is present instead of a selection, it creates a selected region from the cursor location.



Unlike shift-clicking, the Extend Selection command includes the entire measure that you specify.

For convenience, the default measure that appears in this dialog box when you first open it is the last measure in the piece, which makes it easy to select everything from the current selection to the end of the score.

USING THE CLIPBOARD

Mosaic has a standard Macintosh Clipboard. The Clipboard is a temporary storage location for music that has been cut, snipped, or copied. Music that has been placed in the Clipboard with those commands can be pasted, merged, or spliced from the Clipboard. Any music in the Clipboard remains there until the next time you use the Cut, Snip, or Copy commands, in which case it is replaced by the newly edited data.

ERASING, CUTTING, AND SNIPPING

The Erase, Cut, and Snip commands in the Edit menu each remove selected music, but they do so in slightly different ways.

To remove music using the Erase, Cut, or Snip command:

1 Select the data.

Use any of the methods discussed in the section called "Selecting what you want to edit" on page 131.

2 Choose Erase, Cut, or Snip from the Edit menu.

The Erase command does the following:

1. Removes the music
2. Leaves behind empty measures where the notes and rests used to be
3. Leaves the Clipboard empty

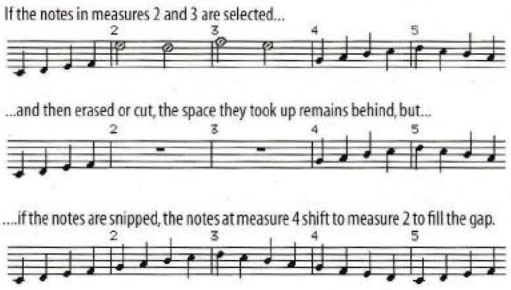
The Cut command is the same as Erase, except that in step number 3, Cut places the removed data on the Clipboard.

The Snip command does the following:

1. Removes the music
2. Closes up the gap where the notes and rests used to be by shifting all the music after the removed music
3. Places the removed music on the Clipboard

Of the three commands, Erase does the least. It simply removes the music, and that's it. It does not place the removed music onto the Clipboard. Since the Clipboard remains empty, the erased music is not available for pasting, merging, or splicing. Erase is handy when you have something in the Clipboard already that you don't want to lose. Both Cut and Snip do place the removed music on the Clipboard, making the removed music available for pasting, splicing, or merging.

When using Erase or Cut, any rhythmic space taken up by erased notes (or rests) is left behind. However, if you want to remove the space as well, use Snip as shown below:



☛ These three commands, as well as the delete key, cannot be used to remove clefs, meter signatures, or key signatures. To remove these items, see their respective sections in chapter 14, "Clefs, Meters, Key Signatures, and Ottavas".

COPYING

The Copy command in the Edit menu places a copy of all currently selected music in the Clipboard, making it available for pasting, splicing, or merging, as discussed in the next section. Copying leaves the original music unchanged.

To copy:

1 Select the data you wish to copy.

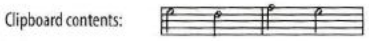
Use any of the methods discussed in the section called "Selecting what you want to edit" on page 131.

2 Choose Copy from the Edit menu.

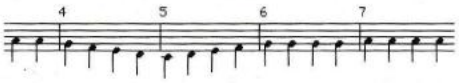
PASTING, SPLICING, AND MERGING

The Paste, Splice, and Merge commands insert music from the Clipboard into one or more voices on a staff.

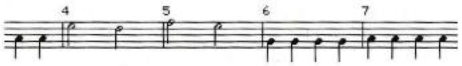
Each command inserts music in a different way. For example, let's say that the following two bars of notes are currently in the Clipboard:



And let's say that you would like to insert these two bars of notes at measure 4 below:



If you Paste, the music in the Clipboard *replaces* what is already there at measure 4:



If you Merge, the music in the Clipboard is *added* to the existing music at measure 4:

If you Splice, the music in the Clipboard is *spliced in-between* the notes on either side of the insertion cursor, and everything to the right is shifted to the right to accommodate the new data. In this example, the notes that were at measure 4 are shifted two bars later to measure 6 to accommodate the two measures of half notes spliced in from the Clipboard:

All notes after measure 4 shift to the right to accommodate the spliced music.

To insert music using the Paste, Splice, or Merge command:

1 Copy, Cut, or Snip music into the clipboard.

This is important because if the clipboard has nothing in it, there is no music to paste, splice, or merge.

2 Place the insertion cursor at the desired measure and beat, and in the desired voice.

To position the insertion cursor at the desired measure and beat, use the left/right arrow keys. To select a voice, press command-up arrow or command-down arrow. Alternately, if there is already a note at the location where you want to insert and the note is in the right voice, you can click the note to select it.

3 Choose Paste, Splice, or Merge from the Edit menu.

The music in the clipboard is inserted at the selected location.

For information about editing more than one voice at a time, see "Editing several voices at once" on page 137.

SHIFTING

The Shift command in the Edit menu allows you to slide notes and rests earlier or later in a piece of music. For example, you could select a section and move it four bars earlier.

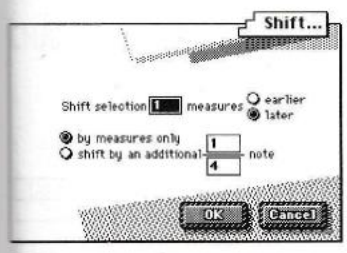
To use the Shift command:

1 Select the music that you wish to shift.

For information about selecting, see "Selecting what you want to edit" on page 131.

2 Choose Shift from the Edit menu.

The Shift dialog box appears.



3 To shift by a number of whole measures, type the number of measures, select either earlier or later, and click OK.

4 To shift by a number of measures plus an additional duration, type the number of measures, click the "shift by an additional x note" option, type in the appropriate duration, and click OK.

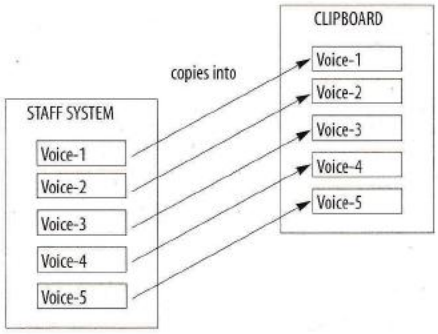
5 To shift by less than a measure, type in 0 measures, click the "shift by an additional x note" option, type in the appropriate duration, and click OK.

EDITING SEVERAL VOICES AT ONCE

Mosaic allows you to use the Cut, Snip, Erase, Copy, Paste, Merge, and Splice commands on several voices at one time. For example, you might want to Snip several bars from all the staves in a system.

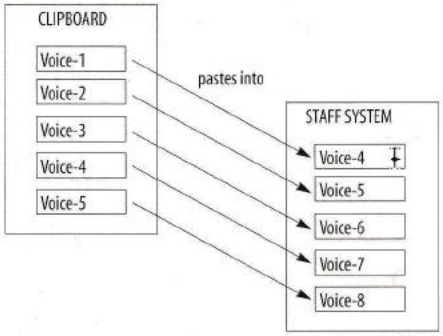
Copying multiple voices

When copying, cutting, or snipping music in more than one voice at a time, Mosaic keeps track of each voice separately, and it also maintains the order of the voices in the Clipboard, as shown in the example below.



Pasting multiple voices

When pasting, merging, or splicing, Mosaic establishes a one-to-one correspondence between the voices in the clipboard and voices on a staff or a system. It pastes the first voice in the Clipboard into the voice on the staff that contains the insertion point (Voice-4 in this example). From there, it pastes the second voice into the next voice down in the system, and so on until either the last voice in the Clipboard is pasted or until there are no more voices in the system to paste into.



Pasting into non-adjacent voices

Most of the time, you will probably copy and paste into the same number of voices, as shown in the above example--and most often they'll be the same voices. However, there may be times when you would like to paste what is in the Clipboard into non-adjacent voices. For example, you might want to copy several bars from the Violin I, II, and

III parts and then paste into the Flute I, Clarinet I, and Bassoon I voices, which are not adjacent to one another.

All three of these voices can be pasted into at once by the following procedure:

1 Copy the three violin parts.

2 Select a note or rest in the Flute, Clarinet, and Bassoon voices at the measure and beat at which you want to paste.

Shift-click each note to select all three at once. If there is no note at that location, insert one and then select it.

3 Choose Paste.

In this example, the Violin I music would be pasted into the flute part, which is the topmost of the three destination voices. Violin II would be pasted into the Clarinet voice, and Violin III into Bassoon.

EDITING EMPTY MEASURE WHOLE RESTS

For convenience, Mosaic automatically places a whole rest in empty measures. This empty-measure whole rest is both similar and different from the whole rest you enter from the Rests palette. The most notable difference is that it cannot be removed. It remains in the measure as long as there are no notes or rests in the measure. As soon as you enter a note or rest in the measure, however, it automatically disappears.

Even though empty-measure whole rests cannot be removed, they can be hidden with the Invisify Rests command. When they are invisified, they appear greyed out on the computer screen, and the do not appear at all in print, resulting in a completely blank measure.

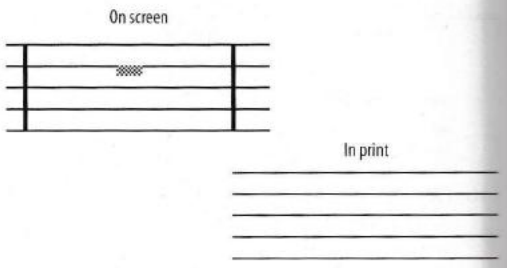


Figure 18-4: An invisified empty-measure whole rest.

With regard to editing, the empty-measure whole rest acts much like a regular whole rest. For example, it can be selected, cut, copied, and pasted, either by itself or selected together with other music. The only exception is with the Cut command. Normally, when you cut something, it is removed and placed on the Clipboard. Empty-measure whole rests get placed on the Clipboard by the Cut command, but they are not removed from the measure. If you want to remove them, use the Invisify Rests commands mentioned above.

EDITING LYRICS AND NOTES TOGETHER

Lyrics can't be selected in a page or galley view. Therefore, they cannot be cut, copied, pasted, etc. together with the notes that they flow beneath. However, the lyrics can be edited in the lyric text window and then reflowed beneath the notes in the voice after you complete editing on the notes in the voice. For information about editing and flowing lyrics, see chapter 16, "Lyrics".

CHAPTER 19 Transposing

This chapter explains how to transpose notes:

- Diatonically (by a number of scale steps)
- Chromatically (by a number of half steps)
- By key
- By dragging notes vertically

TRANSPOSING DIATONICALLY

Diatonic transposition transposes notes by a number of scale steps within the current key signature. Transposition respects accidentals in the key signature, as well as accidentals placed on the notes being transposed.

Transposing diatonically by dragging notes

To transpose a note diatonically, drag it vertically to the desired line, space, or ledger line.

To drag more than one note at a time:

1 Select the notes to be dragged.

To select a group of notes that are next to one another, drag a select box around them. To select notes that are not next to one another, shift-click each one. To select all notes in a voice, double-click any note in the voice.

2 Drag any one of the selected notes up or down.

As you drag, a notehead tracks which line or space you are dragging to. Mosaic constrains your dragging vertically, so that you don't have to worry about accidentally moving the note horizontally. If you accidentally drag horizontally, the note will move sideways instead of vertically. Choose Undo from the Edit menu and try again.

3 When you reach the desired line, space, or ledger line, release the mouse.

All of the selected notes are transposed by the same number of lines and spaces as the note that you dragged.

☛ Dragging a note vertically produces the same result as if you used the Transpose command diatonic transposition option. Because the transposition is diatonic, an accidental on a note may change or disappear at the note's new pitch, depending on the key signature and other accidentals in the measure.

Transposing diatonically using the Transpose command

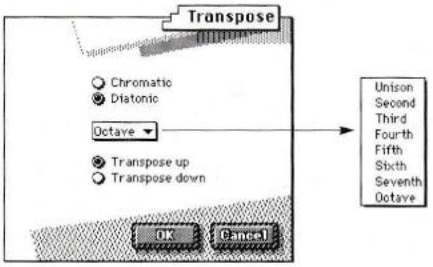
As an alternative to dragging, you can transpose notes diatonically using the Transpose command in the Region menu. To do so:

1 Select the notes to be transposed.

To select a group of notes that are next to one another, drag a select box around them. To select notes that are not next to one another, shift-click each one. To select all notes in a voice, double-click any note in the voice.

2 Choose Transpose from the Region menu or press command-T.

The Transpose dialog appears.



3 Choose the Diatonic option.

4 Choose the desired diatonic interval.

5 Choose a direction (up or down).

6 Click OK to confirm the edit.

TRANSPOSING CHROMATICALLY

Chromatic transposition is exact transposition by some interval of half steps. Pitches are shifted upwards or downwards in pitch by the number of semitones that you choose.

Notes that are transposed chromatically are automatically spelled correctly with respect to the current key signature. In addition, Mosaic maintains the relationship of accidental spellings with respect to the key signature.

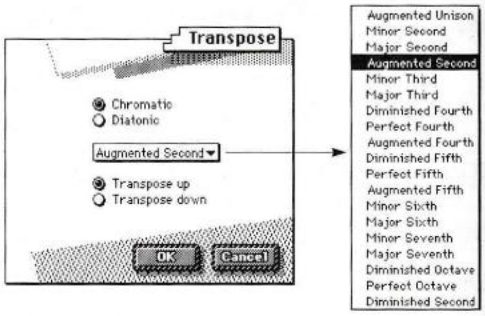
To transpose chromatically:

1 Select the notes to be transposed.

To select a group of notes that are next to one another, drag a select box around them. To select notes that are not next to one another, shift-click each one. To select all notes in a voice, double-click any note in the voice.

2 Choose Transpose from the Region menu or press command-T.

The Transpose dialog appears.



3 Choose the Chromatic option.

4 Choose the desired chromatic interval.

5 Choose a direction (up or down).

6 Click OK to confirm the edit.

TRANSPOSING BY KEY

Transposing by key transposes the notes from one key to another.

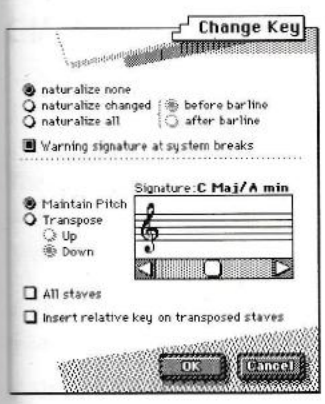
The Change Key command in the Region menu provides an option to transpose notes by key. To do so:

1 Select the region of notes to be transposed.

To select a region of notes, drag a select box around them, or shift–click a note at the beginning and end of the region. To select all notes in a voice, double-click any note in the voice.

2 Choose Change Key from the Region menu.

The Change Key dialog appears.



3 Select a naturalization option.

See "Inserting a key signature" on page 96 for information about these options.

4 If desired, choose the Warning signature at system breaks option.

See "Inserting a key signature" on page 96 for information about this option.

5 Choose the Transpose option, and select either the up or down option.

6 Select the desired key signature by clicking the scroll arrows below the staff.

For your convenience, the name of each key signatures is displayed above the staff.

7 If desired, click the All Staves option.

This inserts the key change in all staves in the system.

8 If desired, check the "Insert relative key on transposed staves" option.

See "Using the 'Insert relative key on transposed staves' option" on page 97.

9 Click OK to complete the insertion.

The chosen key signature is inserted at the beginning of the selected region to indicate the new key. If the end of the region occurs before the end of the piece, a key signature is also inserted at the end of the region to restore the old key signature after the transposed section.

CHAPTER 20

The Rebar comman
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- Shift all music fo
barlines after insert
- Clean up barline
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How rebarring wo

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CHAPTER 20 Rebarring

The Rebar command allows you to obtain the correct number of beats in every measure. You might use Rebar to:

- Place the proper number of beats in each measure after changing the meter
- Shift all music forwards or backwards across barlines after inserting or deleting a note or rest
- Clean up barline placement after copying and pasting

How rebarring works

The Rebar command rearranges existing notes and rests to place the proper number of beats in each measure in a region. It does so by moving notes to the next measure or previous measure. Rebarring begins with the first measure of a range of measures. If the first measure doesn't contain enough notes and rests to make it a complete measure (with respect to the current meter signature), the necessary number of beats are borrowed from the notes at the beginning of the second measure. If the first measure has too many beats, the extra beats are pushed into the second measure.

Once the first measure has the correct number of beats, Mosaic proceeds to the second measure and performs the same procedure.

This process continues for each measure in the selected region. Even though this may seem like a lot of work, Mosaic accomplishes it within seconds. When the Rebar Command has finished, all the measures in the region have the correct number of beats.

When a voice is rebarred, it gets rebarred on every staff (in any view) in which it appears.

Rebarring a selected region

To rebar a region of notes:

1 Select the notes you want to rebar.

You can select a region of notes in a single voice, or several voices on the same staff or on different staves.

☛ Rebarring begins at the start of the measure containing the first selected note.

2 Choose Rebar from the Region menu.

The selected region of notes gets rebarred.

Selecting a large region to rebar

You may need to rebar a very large region, one that you might not be able to select entirely by dragging a selection box over the entire region. See "Selecting large regions" on page 132.

Rebarring a single staff from the cursor to the end of the staff

If you place the insertion cursor on a staff (instead of selecting a region), rebarring begins at the measure that contains the insertion cursor. It takes place in all voices *on that staff only*, and proceeds to the end of the piece.

To rebar from the insertion cursor to the end of the staff:

1 Place the insertion cursor in the measure in which you would like to begin rebarring.

2 Choose Rebar from the Region menu.

☛ When rebarring using the cursor, rebarring only takes place in voices on the staff containing the cursor.

Rebarring more than one staff at a time

To rebar more than one staff at a time, select all the voices you wish to rebar.

To quickly select each entire voice, shift-double-click any note in each voice. The shift key causes other selected notes to remain selected when you double-click.

Rebarring an entire piece

To rebar an entire piece:

1 Open a galley view that contains all staves in the file.

2 Choose Select All from the Edit menu.

3 Choose Rebar from the Region menu.

Tips about rebarring

Here are several tips to know about rebarring:

- If a notehead falls on a barline as a result of rebarring, Rebar automatically splits up the note properly. For example, if a half note ends up being split in half by a barline, it gets notated as two tied quarter notes.
- Rebarring might be slightly imprecise about how it splits up complex rhythms (such as complex tuplets) when they fall across a barline in order to preserve their recognizability.
- Rebar ignores grace notes.

CHAPTER 21

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CHECKING A SI
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CHAPTER 21 Checking Rhythm and Range

The Check Rhythm command in the Region menu scans your music for measures that do not have the proper number of beats and rests.

The Check Range command scans your music for notes that lie above or below the note range you prescribe for each voice in the Voices window.

When either command finds an error, Mosaic automatically scrolls to that offending measure or note. In the case of a note, Mosaic selects the note to identify it.

CHECKING A SELECTED REGION

To check range or rhythm over a region of notes:

1 Select the notes you want to check.

You can select a region of notes in a single voice, or several voices on the same staff or on different staves.

☛ Rhythm checking begins at the start of the measure containing the first selected note.

2 Choose either Check Range or Check Rhythm from the Region menu.

If an error is found, Mosaic scrolls to the location and either places the insertion cursor in the errant measure or highlights the out-of-range note.

3 If desired, correct the error.

4 To check for further errors, re-select the region and repeat the procedure.

CHECKING A LARGE REGION

You may need to check a very large region, one that you might not be able to select entirely by dragging a selection box over the entire region. See "Selecting large regions" on page 132.

CHECKING A SINGLE STAFF FROM THE CURSOR TO THE END

If you place the insertion cursor on a staff (instead of selecting a region), checking begins at the measure that contains the insertion cursor. It takes place in all voices *on that staff only*, and proceeds to the end of the piece.

To check from the insertion cursor to the end of the staff:

1 Place the insertion cursor in the measure in which you would like to begin re-barring.

2 Choose Check Range or Check Rhythm from the Region menu.

☛ When checking using the cursor, checking only takes place on the staff containing the cursor.

CHECKING AN ENTIRE VOICE

To quickly check an entire voice:

1 Double-click any note in the voice.

This selects the entire voice.

2 Choose Check Rhythm or Check Range.

CHECKING SEVERAL STAVES AT ONCE

To check more than one staff at a time:

1 select all the voices you wish to check on each staff.

To quickly select each entire voice, shift-double-click any note in each voice. The shift key causes other selected notes to remain selected when you double-click each new voice.

2 Choose Check Rhythm or Check Range.

CHECKING AN ENTIRE PIECE

To check an entire piece:

1 Open a galley view that contains all staves in the file.

2 Choose Select All from the Edit menu.

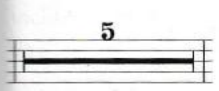
3 Choose Check Rhythm or Check Range from the Region menu.

4 If an error is found, correct it.

5 Repeat steps 1 through 4 until no errors are found.

CHAPTER 22 Consolidating Rests

A consolidated rest consists of two or more adjacent, empty measures (measures that have a whole rest in them) that are combined into one multi-measure rest as shown below:



To get a narrow bar like this, use the "Narrow" option in the File Preferences command in the Edit menu.

Turning on rest consolidating

The Consolidate rests command in the page view mini-menu causes adjacent empty measures to be displayed and printed in this fashion.

When the Consolidate rests menu item is checked, adjacent empty measures in the view become consolidated.

☛ Note: rest consolidation is view-specific. When you enable it in a view, it only occurs in that view.

Turning off rest consolidating

When the menu item is unchecked, rests become unconsolidated. All empty measures are displayed individually.

Rest consolidation does not occur in galley views.

Setting the minimum number of measures

The Preferences command in the File menu allows you choose the lowest number of consecutive empty measures that will be combined. For example, if you set the minimum to be 4 measures, four or above measures in a row will be consolidated; three in a row will not. The Preferences command also lets you choose between two widths for the consolidated rest bar.

To set the minimum number of measures to consolidate:

1 Choose File Preferences from the File menu.

2 Type in the lowest number of measures that you want to be consolidated.

3 Click OK.

Editing measures that have been consolidated

To edit measures that have been consolidated:

1 Temporarily disable rest consolidation by unchecking the Consolidate rests mini-menu command.

All consolidated rests will revert back to individual measures.

2 Do the necessary work on the measures.

3 Re-enable rest consolidation by checking the Consolidate rests mini-menu command.

If you insert music into measures that were consolidated, they will no longer consolidate.

Splitting consolidated rests with barlines

All barlines in the Barlines palette, except for the plain barline and invisible barline, split consolidated rests. If you need to split a consolidated rest with a plain barline, use the split-rest plain barline shown below.

To split a consolidated rest using this barline:

1 Make the Consolidate Rests command unchecked in the view mini-menu.

2 Click the split rest barline in the Barlines palette.

3 Click the barline in the score where you want to split the rest.

4 Check the Consolidate Rests command in the view mini-menu.

Use this barline at rehearsal marks, tempo markings, codas, or other landmark symbols that do not automatically split consolidated rests. Meter changes, key changes, and clef changes automatically split rests without the need for this barline. To "unsplit" a rest, click the barline with the plain barline tool.

CHAPTER 23 Controlling Page Layout

Page layout in Mosaic consists of the following characteristics of your music:

- Page size and margins
- The layout of staves (staff systems) on the page, including their order, spacing, margins, and staff size
- Staff connections such as braces, brackets, and barlines
- Page text, such as titles, staff names, headers/footers, and page numbers
- Lyric placement below or above a staff

A page layout is all of these characteristics put together: think of it as a description of a single, blank sheet of manuscript paper.

This chapter explains how to:

- Control these layout characteristics on any page--even if the page already has music on it, allowing you to see immediately the effects of your layout adjustments on the music
- Build your own page layout from scratch, or modify an existing page layout
- Add new pages to a score based on an existing page layout
- Make layout changes to a page in the middle of a long document, such as removing blank staves from a system
- Apply the page layout of one page to another page
- Create page layout templates on which to base all pages in a score
- Create and use left-hand and right-hand (facing) page templates and use them in a document

Zooming out to get an overview

Zooming out is especially useful for adjusting the layout because you have more of an overview of the entire page. Layout can be adjusted at any zoom level, so you can choose the level that suits you best.

Working on page layout in a galley view

Most layout characteristics are controlled in page views, since printing ultimately occurs from the page view. Some layout characteristics can also be controlled in galley views. For example, staff spacing can be adjusted in a galley view. However, a galley view has no margins because it has no page dimensions.

Galley views do not have the following page layout characteristics:

- Page size and page margins
- Page text
- Staff margins
- Brace and bracket staff connections

☛ Note: you can control barline connections in a galley view.

Short versus long documents

If you are going to be working on a score with many pages, create a page template and base all pages in the view on the template. Then, if you need to make a change to all the pages, just change the template and re-apply it to all pages based on that template. For example, if you want to change the font of all

the page numbers, you only have to do so once on the template page; all pages based on that template will be updated when you re-apply the template.

If you are going to be working on a short piece (3 or 4 pages at the most) and you don't mind making changes manually to each page, you don't need to create a page template.

Even if you already have an existing score and you would like to begin using a page template for the pages in the score, you can create a template--even one that is based on an existing page in the score--and apply it to the all of the pages in the score.

For information about how to create and use page templates, see "Using page layout templates" on page 161.

SETTING THE PAGE SIZE AND MARGINS

Different printers can hold different paper sizes. For example, laser printers typically hold a paper tray for 8.5 by 11 inch or 8.5 x 14 inch paper. A wide-carriage ImageWriter II can feed 8.5 by 11, 8.5 by 14, or 14 x 11 inch ("computer") paper.

Even though Mosaic is completely flexible and will allow you to set up any page size, you are ultimately limited by the paper size in your printer. If you try to print a page in Mosaic that is larger than the paper size in your printer, the music will run off the edges of the paper. As a result, most of the time you'll want to choose a page size that matches (or is smaller than) your printer's paper. If you would like to work with a page size that is larger than your printer paper and then print at a reduction, see the next section.

Matching your printer's paper size

To match your printer's paper size:

1 Select Chooser from the Apple menu and select your type of printer.

2 Close the Chooser.

3 Select Page Setup from Mosaic's File menu.

4 Select the paper size option that matches the size of the paper in your printer.

If you are not sure what size to select, consult your printer manual.

5 Leave the other options alone for now and click OK to confirm your choice.

6 Open or activate the page view window in which you are setting the page size.

7 Choose Page layout setup from the mini-menu.

8 Select the Use paper size check box in the Page Layout setup dialog.

Doing so causes the page size values below to match the paper you've selected in the chooser. In addition, the page margins are set to match the *print area*. (Most printers have a slim margin around the edge of the page on which they cannot print. The area inside that margin is the print area.) The page margin values will be non-rounded numbers (expressed in inches).

9 If desired, adjust the page size and margins by typing in the desired values.

You can make the page size smaller and the margins larger, but don't make the page size larger or the margins smaller because your music will extend beyond the edge of the print area and get cut off at the edges of the page.

Working with page sizes larger than your printer paper

At times you may want to create pages in Mosaic that are larger than the paper in your printer. For example, you may want to create an orchestra score on 11 by 17 inch paper.

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page 166.

ADJUSTING PAG

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If this is the case, you can create a larger page size and then print the page at a reduction on a laser printer. For example, an 11 by 17 page will fit on an 8.5 by 11 sheet of paper if it is reduced to 65%.

You can then take your score to a Linotronic or other Postscript-compatible typesetting machine that handles larger pages sizes and print out the pages at 100%. There are also 11 by 17 inkjet printers that are affordable and can print large page sizes, such as 9.5 by 13.

For information, see "Printing at a reduction" on page 166.

ADJUSTING PAGE MARGINS

Page margins serve as boundaries for staves. Staves cannot be dragged outside the margins. Page text, however, (for titles, headers and footers, page numbers, etc.) can be placed anywhere inside or outside the margins.

To adjust the page margins:

1 (Optional) Choose Show Layout from the page view mini-menu and drag the margins to the approximate location you would like.

2 Choose Page layout setup from the mini-menu.

If you dragged the margins in step 1, the page margin values will be non-rounded numbers (expressed in inches) which reflect the current position of the margins.

3 Adjust the page margin values (which are expressed in inches) to the desired values.

If necessary, round them off to the nearest convenient value, such as the nearest quarter inch.

4 Click OK to confirm your choices.

If you want, you can set the margins with the "Use printer page size" option. This option sets the page size and according to the page size and page reduction values you have currently chosen in the Page Setup dialog box. In addition, it sets the margins to the page's *print area*. The print area is the area in which the printer can print. It will not be able to print anything outside the print area.

ADDING STAVES

This section discusses adding staves to a view that already contains staves. For complete information about adding staves to a new, empty view, see "Displaying staves in a view" on page 36.

Staves are added to a page view or galley view by dragging their staff icon from the Staves window into the view. In doing so, either they can be added to an existing staff system as shown in Figure 23-1, or they can be added as a new, separate staff system.

To add one or more staves:

1 Open or activate the view window.

To open the view, double-click its icon in the Views window. To activate a view window that is already open, select the view name from the Windows menu.

2 Choose Staves from the Windows menu.

If you have several files open, be sure to select the right one. This opens the Staves window or brings it to the front if it is already open.

3 If you are adding multiple staves, select the staves you wish to add in the Staves window.

Shift-click the icon of each one to select it. If you haven't created the staves yet, hold down the option key and choose Add staff from the mini-menu to add them. For more information, see "Creating a staff" on page 28.

4 Drag the staff (or one of the group) from the staves window on top of the page view window, positioning the tracking line at the vertical location where you would like the staves.

When the tracking line connects to an existing system, the staves are added to that system. When the tracking line doesn't connect to any existing staves, the staves being added become their own system.

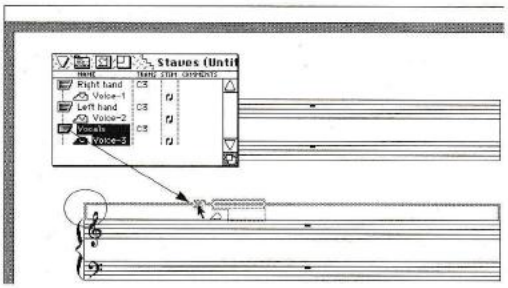


Figure 23-1: When the tracking line connects to an existing staff, the staff (or staves) being added to the page will be added to that system.

5 Adjust the spacing of the systems, if necessary.

See "Spacing staves evenly" on page 157 for information.

SETTING THE DEFAULT STAFF AND SYSTEM SPACING

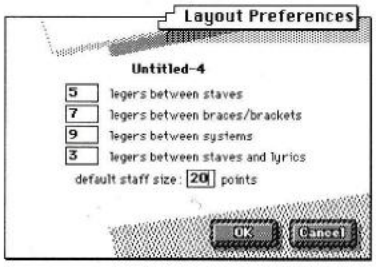
When adding staves and systems to a page or galley view, the staves are spaced according to a default number of leger lines above and below each staff.

You can control the distance between staves when they are added using the System Layout Preferences command.

To set the default staff and system spacing for staves:

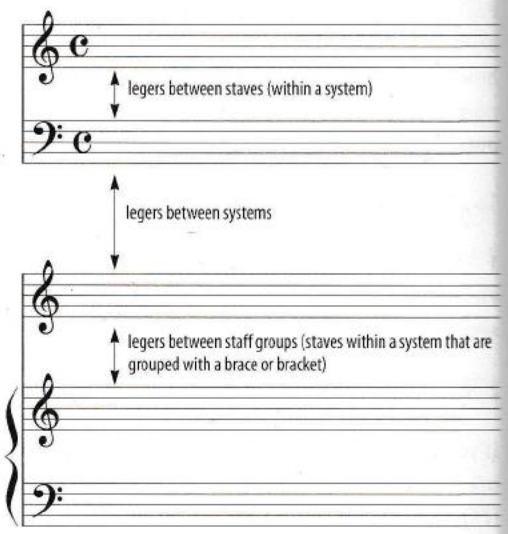
1 Choose System Layout Preferences from the Format menu.

A dialog box appears.



2 Type the number of leger lines you prefer between staves, staff groups, and systems.

Notice that you have separate control over each type of space, as noted below:



3 Click OK to confirm your choice.

The default spacing affects how the staves are spaced when added to the page. You can adjust the spacing by dragging the staves. You can expand or contract the spacing evenly with the Realign command. See "Spacing staves evenly" on page 157.

CONTROLLING STAFF SIZE

Staves can be enlarged or reduced to any point size. For example, you might enlarge staves for children's music or for band charts so that musicians can more easily read them--especially in performance situations where the music is hard to read.

You might reduce a staff and add it to a system as a cue notes staff.

Or you might reduce staves to fit more staves on a page.

When a staff is reduced or enlarged, all symbols on the staff, including articulations, dynamics, and so on, are reduced or enlarged as well. If you need to reduce text, use the Size command in the Text menu.

How reduced or enlarged staves appear on screen

When setting staff size, you need to consider how the reduced or enlarged staff will appear on the computer screen. The best-looking staff sizes are 12, 16, 20, 24, or 28 points--or any multiple of four--because the staff lines will be evenly spaced at any zoom level. At other point sizes, the staff lines will not be evenly spaced at every zoom level.

How reduced or enlarged staves print

If you have a laser printer or a high-resolution QuickDraw printer like a StyleWriter, reduced or enlarged staves are scaled, and they print beautifully.

If you have a lower-resolution dot-matrix printer such as an ImageWriter or ImageWriter LQ, reduced or enlarged staves will print best if they are scaled to 12, 16, 20, 24, or 28 points. If you scale to any point size other than these, the output may not look desirable.

Reducing or enlarging a staff

To reduce or enlarge a staff:

1 Select Show Layout from the view window mini-menu.

2 Select the staff (or staves) you wish to enlarge or reduce.

See "Selecting staves" on page 154.

3 Choose Size from the Text menu.

4 Select the desired point size for the staff.

5 Click OK to confirm your choice.

The staff is scaled on the page.

☛ Please note! When a staff is reduced or enlarged in a page view, the scaling occurs on that page only. It does not get scaled on other pages in the view, nor does it get scaled in other views. If you would like to scale the staff on all the pages, create a page template and scale the staff on the page template. See "Using page layout templates" on page 161 for more information.

Setting a default staff size

The System Layout Preferences dialog allows you to choose a default staff size, so that any time you add a staff, it is displayed at the desired point size.

To set the default size for staves added to a page:

1 Choose System Layout Preferences from the Format menu.

2 Type in the desired point size in the Default staff size box.

3 Click OK.

This default setting is saved with the file.

ADJUSTING SYSTEM MARGINS

Staff system margins consist of the very left-hand or right-hand edge of the staff system. The left edge of a staff system is connected with a barline extending across all staves in the system. The right edge may or may not be connected with a barline, depending on whether you have connected the barlines of the system.

Either the left-hand or right-hand edge of the system can be dragged independently to any position within the left and right page margins. Here are some of the things you can do by adjusting system margins:

- Indent the first system on the page
- Indent numbered exercises
- Place separate systems next to each other to create a separated coda section

To adjust system margins:

- Drag the left-hand or right-hand edge of the system. Note that you cannot drag the system margins past the left or right page margin.

EDITING STAVES

When Show Layout is chosen from the page view or galley view mini-menu, staves can be edited in many ways. You can:

- Select one or more staves
- Drag one or more staves to any position on the page
- Cut, copy, and paste staves to rearrange them or transfer them from one page, view, or file to another
- Reorder staves by dragging them
- Position staves manually by dragging them
- Evenly space staves using the Justify command

These operations are discussed in the following sections.

☛ Please note that when editing staves in a galley view, you affect the display for the entire view. However, when you edit staves in a page view, you only affect the page on which you are editing (unless it is a template page, of course).

SELECTING STAVES

When Show Layout is chosen from the mini-menu, staves can be selected in the following ways.

To select a single staff, click it.

To select several non-adjacent staves, shift-click each one.

To select a group of staves, drag a selection box over them in a page view. You might find it helpful to zoom out first to more easily cover all the staves.

To select all the staves in a system, double-click any staff in the system.

To select all the staves, along with all other page-layout related material on a page, such as page text, choose Select All from the Edit menu.

☛ When a staff is selected, it displays a boldfaced box around it.

MOVING STAVES

Staves can be freely moved up or down, either in a page view or a galley view.

To move one or more staves:

1 Be sure the view is in Show Layout mode by selecting the Show Layout command in the view window mini-menu.

If the command says Hide Layout, and page margins are already visible on the page, the view is already in Show Layout mode.

2 To move a single staff, click anywhere on the staff and drag up or down.

You can reorder staves by dragging past the staff above or below the one you are moving. See the next section.

3 To move several staves at once, select them and drag one of the selected staves up or down.

See "Selecting staves" on page 154.

REORDERING STAVES

Staves can be reordered with complete flexibility in Mosaic. Reordering can be used to:

- Change the order of staves within a system
- Move a staff (or staves) from one system to another
- Split a staff (or staves) into their own system

When reordering staves, you can drag a single staff or several selected staves at once. See "Selecting staves" on page 154 for information.

☛ Note: when reordering staves, braces and brackets stick to the staves to which they are connected, unless you drag the staff outside the system. If so, the brace (or bracket) disappears.

1 Be sure the view is in Show Layout mode by selecting the Show Layout command in the view window mini-menu.

2 Drag the staff (or staves) up or down in the view window to the desired position.

As you drag, the tracking shows whether the staff is still connected to the system, or whether it has become its own system. If the tracking line isn't connected to an existing staff, the staff (or staves) you are dragging will be inserted as a new system on the page. If the tracking line is connected to an existing staff, the staff (or staves) you are dragging will be added to its system.

When reordered, the spacing of a staff at its new location is controlled by the default staff spacing that you have set in the Staff Layout Preferences command in the Format menu.

REMOVING STAVES

Selected staves can be removed from a page by selecting them and choosing Cut or Erase from the Edit menu. Alternately, you can select the staff and press the delete key.

To cut a staff:

1 Be sure the view is in Show Layout mode by selecting the Show Layout command in the view window mini-menu.

2 Select the staff or staves you wish to remove.

See the section called "Selecting staves" on page 154.

3 Choose Cut or Erase from the Edit menu, or press the delete key.

If you cut the staves, they are placed in the Clipboard and can be pasted. See the next section.

Removing empty staves from a system

The above procedure is ideal for removing empty staves in a system in a page view at a point in the score where only some staves are active. By removing empty staves from the system, you reduce the size of the staff system, and you can then possibly fit more systems on the page. See the next section for how to replicate the reduced system once you have removed the empty staves.

COPYING AND PASTING STAVES

Staves can be copied by selecting them in Layout Mode and choosing Copy from the Edit menu. Once staves have been copied or cut into the Clipboard, they can be pasted:

- Back onto the same page
- Onto a different page, either in the same view or a different view, or even a view in another file.

Copying and pasting to replicate a staff system

Pasting staves can be useful in many situations. For example, let's say that you have a score page with one full staff system filling the page. You deleted inactive staves to reduce the size of the system. Now you have one system that is much smaller, and now there is room on the page for a second system. You can copy the reduced system and paste a second copy onto the page below the first.

To paste one or more staves:

1 Open the page or galley view into which you wish to paste them.

If it is a page view, scroll the page onto which you wish to paste the staves. The page can be a template page, if desired.

2 Be sure the view is in Show Layout mode by selecting the Show Layout command in the view window mini-menu.

3 Choose Paste from the Edit menu.

The staves appear at the bottom of the page. They are spaced evenly according to the default staff spacing set in the Staff Layout Preferences dialog in the Format menu.

4 Select the pasted staves and drag them to the desired position and/or system.

If necessary, you can use the Realign command in the Format menu to change the spacing.

POSITIONING LYRICS

For information about how to position lyrics above or below a staff, see "Adjusting a lyric line's distance from the staff" on page 121 or "Placing lyrics above the staff" on page 122.

USING BRACES AND BRACKETS

Staff braces and brackets can be placed in any configuration to connect staves within a staff system.

☛ Staves must be in the same system in order to connect them with a brace or bracket. If they are not in the same system, see "Reordering staves" on page 155 for information about how to place them in the same system.

Entering a brace or bracket

To enter a brace or bracket:

1 Open a page view in which you wish to enter the bracket or brace.

Braces and brackets cannot be entered in a galley view.

2 Click either the brace or bracket symbol in the Groupings palette.

3 Drag along the left edge of the staves you wish to connect.

Extending or shortening a brace or bracket

To extend a brace or bracket to include more staves, or shorten it to include fewer staves:

1 Click the brace or bracket to select it.

Handles appear on the top and bottom.

2 Drag either the top handle or the bottom handle up or down.

The brace or bracket can only be extended to staves within its system. It cannot be extend to staves in other systems.

☛ You don't have to be in Show Layout mode to adjust the bracket.

Adjusting the distance from the staff

To adjust the distance of the brace or bracket from the staff, drag it left or right.

Deleting a brace or bracket

To delete a brace or bracket:

1 Click the brace or bracket to select it.

2 Choose Cut or Erase from the Edit menu, or press the delete key.

CONNECTING BARLINES

To connect the barlines between staves in a system:

1 Click any barline on a staff in the group you would like to connect.

2 Drag the handles of the barline up or down as necessary to connect them to other staves.

You can connect as many staves as you would like, including all the staves in the system.

Removing or changing barline connections

To remove or change a barline connection:

1 Click the barline.

2 Drag the handles at either end as desired to remove or modify the barline connections.

SPACING STAVES EVENLY

Mosaic provides you with the ability to space staves evenly within any vertical space in a view. This is extremely helpful after adding, cutting, pasting or reordering staves on a page.

Once you have the staves in the order that you prefer, you can evenly space them in one of two ways:

1. Revert them to their default spacing, or
2. Space them evenly over any desired vertical range

Converting staves to their default spacing

Staves have a default spacing, which is set in the Staff Layout Preferences command in the Format menu. This procedure causes selected staves to revert to the values prescribed in that dialog.

To convert staves to their default spacing:

1 Select the staves you wish to re-space.

As a shortcut, you can just select the top and bottom staff of the group that you wish to respace.

2 Choose Reformat from the Format menu.

Spacing staves evenly through any vertical range

Mosaic can space staves evenly through any vertical range on the page that you choose.

When doing so, Mosaic leaves extra space between systems, as well as extra space between staff groups (staves that are braced or bracketed within a system), to visually distinguish them. The extra space that Mosaic uses is controlled proportionally by the default leger line spacings in the Staff Layout Preferences command in the Format menu. You can expand or contract spacing by changing the differences between the leger line values in the dialog.

To space staves evenly through any vertical range:

1 Position the top staff of the range at the location at which you would like it to end up.

2 Position the bottom staff of the range at the location at which you would like it to end up.

3 Click the top staff and shift-click the bottom staff to select them.

Alternately, you could select all the staves to be spaced.

4 Choose Realign from the Format menu.

The staves reposition themselves evenly within the space between the top and bottom selected staff. Extra space is inserted between systems and staff groups.

INSERTING STAFF NAMES AND OTHER TEXT

Page text is part of the page layout, since it is anchored to the page like staves. Page text consists of titles, headers and footers, copyright notices, exercise numbers, staff names, and other page-related text items.

See "Page text" on page 107 for information about how to insert staff names and other text.

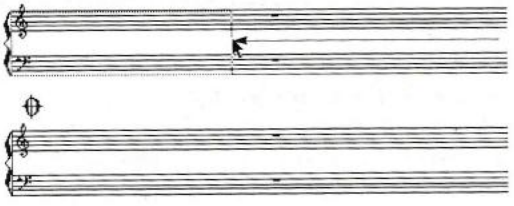
MAKING A CODA SECTION

This section serves as an example of how you can put Mosaic's page layout features together to create a desired page layout.

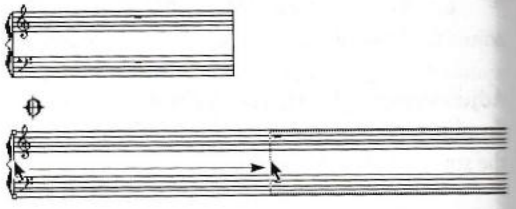
Here is the procedure for creating a separated coda section:

1 Drag the right-hand margin of the staff above the coda system to the left as far as desired.

You might try about half way, depending on the music.



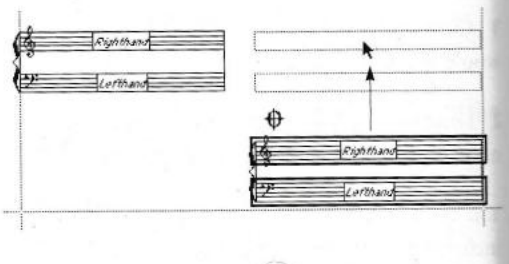
2 Drag the left-hand margin of the coda staff system to the right. Be sure to drag it past the opposite edge of the system above.



3 Enable layout mode by selecting Show Layout from the page view mini-menu.

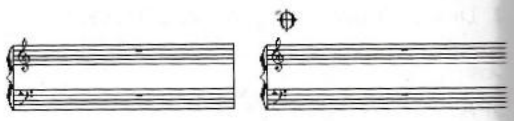
4 Double-click one of the staves in the coda system to select the entire system.

5 Drag upwards to align the coda system with the previous system.



You can zoom in to fine-tune the placement.

6 Disable show layout mode by selecting Hide Layout from the view window mini-menu.



NUMBERING EXERCISES

Staff indenting can be used to create numbered exercises for method books or other training material.

To create numbered exercises:

1 Create a page that contains a single staff system that fills the page.

2 Drag the left margins of each staff that begins a new exercise.

3 Enter page text, if desired, at each indent.

BUILDING A PAGE

This section provides an overview of the process of building a page layout.

There are two ways to approach building your own page layout:

1. You can modify an existing page.

2. You can build a page from scratch.

Once you have completed your page, you can apply it to other pages in your document. You can even make a page template on which other pages can be based. For information, see "Using page layout templates" on page 161.

Modifying an existing page layout

Building your own page layout based on an existing page layout is not a structured process. You can use any of the procedures described in this chapter to mold the page to your liking.

In general, the process would proceed as follows:

1 Open a Mosaic file that contains the page layout that you wish to modify.

This could be a file that you created. It could be one of the sample template files that ship on the Mosaic disks.

2 Choose Save As and save the file under a new name that describes the template you are about to create.

3 Open the page view that contains the page.

4 As desired, modify the page size, margins, staff layout, page text, staff connections, barline connections, and other layout characteristics as described in the sections in this chapter.

5 Save the page layout as a template (if it isn't already).

See "Pasting a body page into a template view" on page 162.

6 Apply it to existing pages, or create new pages based on the new page layout.

See "Copying and pasting page layouts" on page 160 or "Regenerating pages based on a template" on page 162.

Building a page layout from scratch

Here is an overview of how you can create a page from scratch:

1 Create a new view with a blank page.

2 Set the page size and adjust the page margins (for page views only).

3 Add staves in the Staves window and name them. Name the voices in the Voices window. If necessary, add extra voices, name them, and assign them to the desired staves.

4 Set up the default staff spacing with the Staff Layout Preferences command in the Format menu.

5 Drag all the staves from the Staves window onto the page in the view window.

6 If desired, use the Realign command to adjust the staff spacing evenly on the page.

7 Enter a staff bracket on each system and staff braces to connect staves where desired.

8 Connect the barlines in each staff system, if desired.

9 Add any desired page text, including staff names to the left of each staff, a title at the top of the page, a header and/or footer, page number, and so on.

Once your layout is in the templates view, you can use it as a model for pages in your regular views. See "Pasting a body page into a template view" on page 162 to see how to copy the page layout from the body page to a template view in the Templates window.

Making a title (first) page and a body page

When building your own pages, remember that the first page of your score will probably have a different layout than the body pages because it needs extra space at the top for the title, subtitle, composer, and other information. In addition, it may have full staff names, whereas the body page might have abbreviated staff names. Therefore, you might begin by building the body page first, and then make a copy of it and modify the copy to turn it into a title (first) page.

For information about how to copy and paste a page layout, see "Copying and pasting page layouts" on page 160.

You can reduce the spacing of the staves slightly to allow for more space at the top for the title. You may even need to remove a system, if possible, to make more room.

Using left-hand and right-hand (facing) pages

You can create left-hand and right-hand page layouts for facing pages. For example, you might design the pages to mirror one another, with the footer at the inside margin and the page number at the outside margin.

To make facing page layouts:

1 Build one of the two pages.

2 Copy it.

3 Modify the copy to make the opposite facing page.

You can then copy the left-hand page layout, paste it on all of the left-hand pages in the view, and do likewise with the right-hand page. For information about copying a pasting page layouts, see the next section.

COPYING AND PASTING PAGE LAYOUTS

Mosaic allows you to select the page layout characteristics of a page and apply them to any other page. This allows you to:

- Get a page to have the same layout as any other page
- Build your own page layout and then apply it to existing pages in a view, or use it as a model for new pages added to the view
- Get all the pages in a view to have the same page layout
- Change the page layout of all the pages in a view

Copying a page layout

To copy a page layout:

1 Be sure the view is in Show Layout mode by selecting the Show Layout command in the view window mini-menu.

2 Choose Select All from the Edit menu.

3 Choose Copy from the Edit menu.

The entire page layout is copied, including page size, margins, staff system layout, staff connections, and page text.

Pasting a page layout

To paste a page layout:

1 Copy a page layout as described above.

2 Be sure the view is in Show Layout mode by selecting the Show Layout command in the view window mini-menu.

3 Scroll to a different page in the view, or any view of the same type (page or galley).

☛ A page view layout cannot be pasted into a galley view. Likewise, a galley view layout cannot be pasted into a page view.

4 Once you are displaying the desired page, choose Paste from the Edit menu.

5 The page converts to the same page layout as the copied page.

Applying a page layout to all pages in a score

There are two ways to apply a page layout to all pages in a score:

1. Copy the layout and then paste it on each page in the score

2. Save the layout as a page layout template and regenerate the pages in the score using it as a model layout for the newly generated pages

Option 1 may be suitable for shorter documents that only have a few pages. You'll most likely want to use Option 2 for long documents with many pages.

See the previous section for Option 1. See "Regenerating pages based on a template" on page 162 for Option 2.

Making a page layout change to all pages in a score

To make a change to all pages in a view, make the change on one page (either a body page or a template page), and then apply the layout of the modified page layout to the rest of the pages in the view. When applying the modified page layout to the rest of the pages in the view, you have the same two options as presented in the previous section.

USING PAGE LAYOUT TEMPLATES

A page layout *template* is a page layout that is used as a model for the body pages in your music manuscript. (The *body pages* are the regular pages in a page view.)

Page layout templates serve two primary purposes:

1. They serve as a model layout for new pages added to a score (Templates appear in the Add page command as choices for a layout on which to base the new pages.)

2. They serve as pristine, original copies of the page layouts that you design which you can copy and paste onto pages in your score.

Creating a new page template

Page templates are stored as a single-page view in the Templates window. To create a new page layout template:

1 Choose Templates from the Windows menu.

2 choose Add from the Templates window mini-menu.

3 (Optional) Click the name to pop-edit the name.

Opening a template view

To open a template view, double-click the page template icon in the Templates window.

Building a template layout from scratch

Once you have created a new template and opened the template view, you see a blank page, just as you do in a new page view. From there you can build the layout using all of the procedures outlined in this chapter to set the page size and margins, staff system layout, page text, staff names, headers, footers, etc.

The only difference between building a page in a template view versus a regular view is that if the staves have voices filled with music, no music is

displayed. This allows you to get a sense of what the layout is without music cluttering up the staves. If at any time you would like to see the layout with the music, copy and paste the layout to a page in a regular view.

Pasting a body page into a template view

If you have already created the layout as a body page in a regular view, and you would like to convert it into a template, you can copy the layout from the regular page and paste it into a template view.

See "Copying and pasting page layouts" on page 160 for more information.

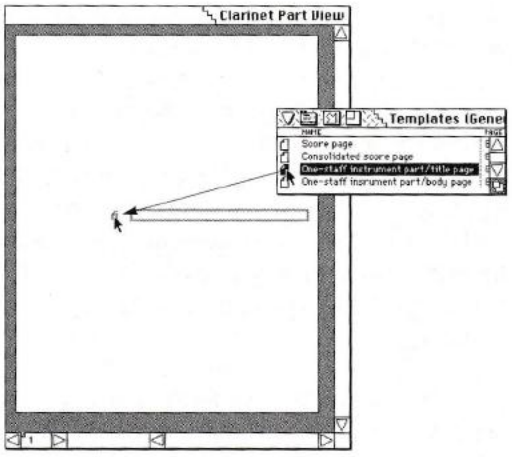
Applying a page layout template to a regular page in a page view

To apply a template page to a regular body page in a view:

1 Position the Templates window either next to or on top of the page view.

2 Drag the page layout template onto the new page.

To do so, grab the icon as shown below and drag it on top of the page.

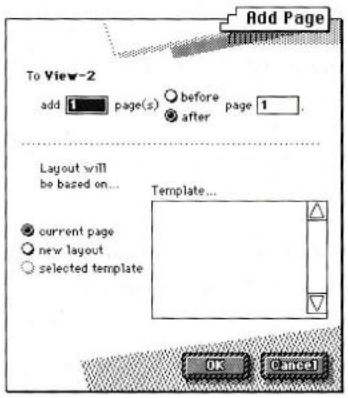


This applies the template page layout to the body page in the view.

Generating new pages based on a template

To generate one or more new pages in a view based on a page layout template:

1 Choose Add page from a page view mini-menu.



2 Select the number of pages to be added.

3 Select the desired page layout template.

4 Click OK.

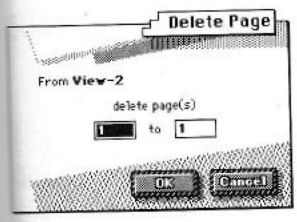
Regenerating pages based on a template

To regenerate the pages in a view based on a page template:

1 Go to the first page of the range of pages you want to regenerate in a page view.

2 Choose Delete page from the view window mini-menu.

Remember, deleting a page from a page view doesn't delete the music: just the page through which the music flows.



3 Delete the pages that you wish to regenerate.

4 Click OK.

5 Choose Add page from a page view mini-menu.

6 Add the same number of pages as you just deleted.

7 Choose the desired page template.

8 Click OK.

The regenerated pages match the page layout of the template. Line breaks and page breaks are maintained.

☛ Please note! Any modifications you have made to specific pages are lost during this procedure because they are replaced by the new page layout.

CHAPTER 24

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- Print the mu
- Print music
- Print horizo

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CHAPTER 24 Printing

This chapter explains how to:

- Get your music ready to print
- Print the music
- Print music at a reduction
- Print horizontally on the page

GETTING READY TO PRINT

Mosaic can only print music in a page view. If you enter the music in a galley view, you need to place the staves in a page view. See "Creating a view" on page 36 for information about how to do this. Once the staves have been placed in a page view, they can be printed.

What you see is what you get (WYSIWYG)

In Mosaic, what you see on each page in a page view is exactly what will come out of the printer when you print the view. Therefore, you'll want to set up the page layout exactly as you want before you print. See chapter 23, "Controlling Page Layout" for important information about setting up the page size, margins, staff layout, title, page numbers, header/footers, etc.

Making the Page Setup settings

To make the page setup settings for a view:

1 Open the view window.

2 Choose Page Setup from the File menu.

3 Make the settings as desired.

See "Page Setup" on page 248 in the Quick Reference chapter for detailed information about the Page Setup options. If you are printing at a reduction on a laser printer, see "Printing at a reduction" on page 166 in this chapter.

4 Click OK.

The settings are saved with the view.

All of the options in the Page Setup dialog box, including paper size, reduction level, and portrait/landscape orientation are saved separately for each view. As a result, each view can have its own, unique settings. For example, you might want to print the master score at 65% on a laser printer to fit all staves on the page and print the instrument part views at 100%.

Often, you may want many views (all instrument part views, for example) to have the same page setup settings. To make page setup settings for more than one view at a time:

1 Open the Views window.

2 Select the desired views.

Shift-click the view icons or shift-drag over several at a time.

3 Choose Page Setup from the File menu.

4 Make the settings as desired.

5 Click OK.

The settings are saved with each view.

New views are created with the last Page Setup settings you made.

Using the Mosaic Smart Scaling option

The Mosaic Smart Scaling option allows you to scale the document you are printing to any size. This option provides better results in most situations than the other standard scaling options provided in the Page Setup dialog box. Leave the standard options set to their default value (100%) and use the smart scale option by typing in the desired percentage.

PRINTING

Once you have set up the page layout exactly as you want in a page view, you are ready to print.

The Print command allows you to print a single page view, several page views at once, or all page views at once. (Galley views cannot be printed.)

Printing a single page view

To print a single page view:

1 Be sure the desired printer is selected in the Chooser.

You should have already done this in the process of setting up the page size.

2 Make the desired view the topmost window.

To do so, either choose its name from the Windows menu, click its title bar to activate it, or double-click its icon in the Views window.

3 Choose Print from the File menu.

4 Select options for page range, number of copies etc. See your Macintosh and printer documentation if you need more information about these options.

5 Click OK.

Printing several page views, or all page views

To print several views at one time, or to print all views:

1 Choose Views from the Windows menu.

This opens the Views window.

2 Select the views you wish to print.

To select a view, click its icon. To select several adjacent views, shift-drag over their icons. To select several nonadjacent views, shift-click each one's icon. To select all views, choose Select All from the Edit menu.

3 (Optional) Set up any desired options in the Page Setup dialog box.

See "Page Setup" on page 248 in the Quick Reference chapter for detailed information about the Page Setup options. If you are printing at a reduction on a laser printer, see "Printing at a reduction" on page 166 in this chapter.

4 Choose Print from the File menu.

5 Select options for page range, number of copies etc. See your Macintosh and printer documentation if you need more information about these options.

6 Click OK.

PRINTING AT A REDUCTION

Printing at a reduction (less than 100%) on a laser printer is useful if the page size in your Mosaic score is larger than the paper you are printing it on.

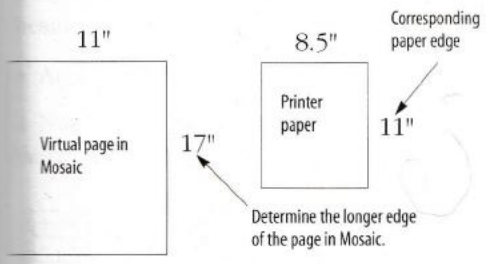
☛ For best results, always use Mosaic Smart Scaling instead of the standard reduction option in the Page Setup dialog box. See "Using the Mosaic Smart Scaling option" on page 166.

For example, if you scored your music in Mosaic on pages that are 11 by 17 inches, but you have to print them on a laser printer which only takes 8.5 by 11 inch paper, you need to reduce the pages to get them to fit on the paper.

To determine the reduction:

1 Determine the longer edge of your virtual page in Mosaic.

In this example, it is 17 inches, as shown below.



2 Divide the corresponding paper edge by it.

In the above example the corresponding paper edge is the vertical length of the paper, which is 11 inches. Therefore, you would divide 11 by 17, which equals approximately 0.65. Thus, the reduction amount is 65% to get the 11 by 17 page to fit on an 8.5 by 11 sheet of paper.

Most often, you'll divide the page heights, or, if you are printing horizontally, the page widths because they are the longest edges. It is important to divide the longest edges when calculating the reduction to ensure that all the music will fit on the page.

PRINTING LANDSCAPE

Landscape printing is when you orient the page sideways as shown below.

The easiest way to set up the page size in order to print landscape is as follows:

1 Select Page Setup from the File menu.

2 Select landscape printing.

3 Choose Page layout setup from the page view mini-menu.

4 Check the Use printer page size option.

The page size and margin settings below get automatically set for you. The margin settings take into account a thin area at the edge of the page where the printer can't print anything.

5 (Optional) Increase the page margins slightly if you want.

Don't make them smaller or else your music will get clipped at the edge of the page.

CHAPTER 25

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- Slash noteheads f
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- Special effects, su
beamed notes
- An invisible note
- Numbered noteh
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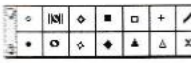

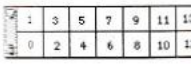

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Changing a group
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1 Select the notes

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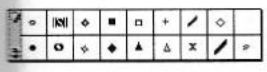
one to select it.

2 Command-click
noteheads palette.

CHAPTER 25 Using Special Noteheads

The noteheads and TAB noteheads palettes provide a variety of noteheads in your music, including:

- X noteheads for percussion parts
- Slash noteheads for chord parts in lead sheets, guitar parts, etc.
- Special effects, such as a hollow notehead on beamed notes
- An invisible notehead
- Numbered noteheads for stringed instrument tablature (TAB)



Changing a single notehead

To change a single notehead:

1 Click the desired notehead in the noteheads palette.

2 Click the notehead that you wish to change.

Changing a group of noteheads

To change a group of notes:

1 Select the notes that you wish to change.

Drag a selection box over them, or shift-click each one to select it.

2 Command-click the desired notehead in the noteheads palette.

The selected notes will change to the new notehead.

Changing all noteheads in a voice

To change all noteheads in a voice:

1 Double-click any note in the voice.

This selects all the notes in the voice.

2 Command-click the desired notehead in the noteheads palette.

Creating stemless chord slashes

A common notation in lead sheets is to indicate the chords with stemmed chord slashes.

Another method is to write four stemless slashes in a measure with chord symbols written as text above the slashes. To create stemless chord slashes in this fashion, see chapter 31, "Creating Rhythm Slash Notation".

The invisible notehead

The Noteheads palette provides an invisible notehead. Apply this notehead as described above.

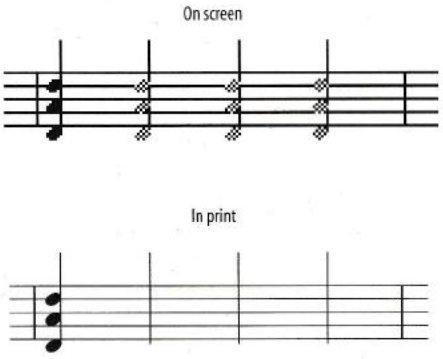


Figure 25-1: Using the invisified notehead.

CHAPTER 2

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CHAPTER 26 Creating Instrument Parts

This chapter explains how to create separate instrument parts from a score by creating a separate page view for each instrument. It also explains how to handle transposing instruments such as Bb Trumpet or Eb Alto Sax.

OVERVIEW

When you create a score view in Mosaic, you can also create a separate instrument part view for each instrument in the score.

Creating the instrument parts for a large score with many instruments can be time-consuming, so be sure to follow the shortcuts presented in this chapter. Fortunately, instrument part views only need to be set up once. From then on, they automatically reflect changes made in the master score. Likewise, changes made to each part are automatically reflected in the master score. The parts can be viewed, edited, and printed separately from the score or printed all at once with the score.

To create instrument parts there are two important preparations:

1. Create transposed staves for transposing instruments (such as Bb trumpet or Eb alto sax)

2. Create an instrument part page layout template

These preparations are discussed in the next two sections.

The third section explains how to build the instrument parts.

Creating transposed staves for transposing instruments

Transposing instruments are instruments whose music is written in a different key than the actual (concert) key. The key in which they are written is determined by the transposition of the instrument. For example, the Clarinet in A is written a minor third higher than concert key. This convention makes it easier for the instrumentalist to read the music.

When you are creating instrument parts, you want to notate music in the appropriate key for the instrument. This requires creating a second staff for that instrument, assigning the appropriate transposition to the staff, and assigning the instrument voice to the transposed staff.

Here is an example:

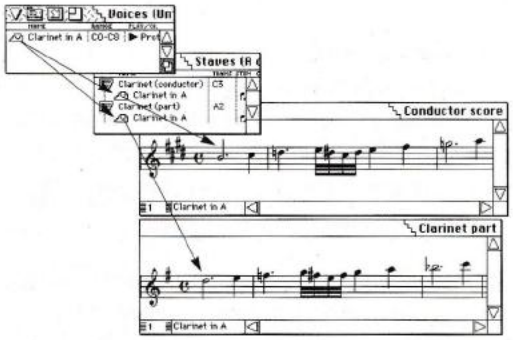


Figure 26-1: The A clarinet voice has been assigned to two different staves: a non-transposed (concert pitch) staff for the conductor's score (top) and a transposed staff for the clarinet instrument part (bottom), which is written up a minor third. Notice that the notes belong to the same voice, but they are displayed differently on each staff.

To create the transposed staff for each transposing voice:

1 Add a new staff and name it.

2 Set its transposition.

3 Assign the desired voice to it by dragging the voice icon from the Voices window to the new staff in the Staves window.

4 Proceed to the next section to prepare the page layout template for the instrument part.

If you aren't yet familiar with the procedures mentioned above regarding the creating of a staff, see "Creating a staff" on page 28.

CREATING AN INSTRUMENT PART PAGE TEMPLATE

When you create instrument parts, you are usually generating many of them. To make things easier, you should build a page layout template before creating the instrument parts, so that their format is similar and so that you can generate each part quickly.

A page layout template is a page layout (which consists of page size, margins, staves, title, instrument name, copyright notice, or other text) that you have stored as a model from which to build pages in views. For more information, see "Using page layout templates" on page 161.

☛ You may need to make several instrument part templates, depending on your score. You might need a single staff template for regular instruments, a double-staff template for harp and piano parts, and a single-staff-line part for percussion instruments. In addition, you'll probably want to make a title page version and a body page version (with no title and page numbers added, for example) for each type of template.

To build an instrument part page layout template:

1 Open the Templates window and choose Add from the mini-menu.

2 Double-click the new view icon to open its page view window.

3 Choose Template Layout setup from the mini-menu and set the desired page size and margins.

4 Position the Staves window either next to or on top of the template page view window.

5 Drag a staff into the page view window.

It doesn't really matter which staff you drag because it only serves as a model for the staves of the other instruments.

6 Arrange staves in a way that you prefer.

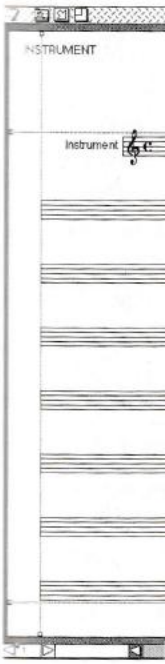
You can determine:

- The number of staves on the page
- The staff spacing
- The staff margins and indenting
- The staff size (enlarged or reduced)

For more information about controlling these characteristics, see chapter 23, "Controlling Page Layout".

7 Add a generic title, composer, instrument name, copyright notice, and/or any preferred text you desire.

When you are finished, the template should look something like this:



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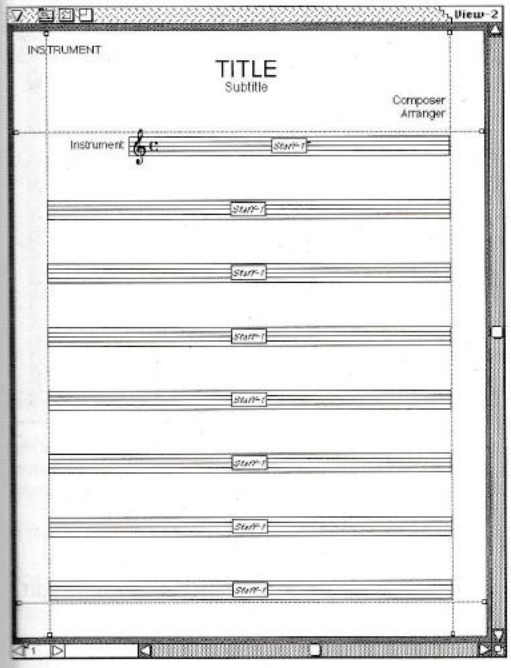
6 Choose Past



After creating the title page template as shown above, you'll want to create another template for page two and beyond on which you've removed the title and added a page number.

To make a body page template that is based on the title page:

1 Make the title page template view the active window.

2 Choose Select All from the Edit menu to select the entire page layout.

3 Choose Copy from the Edit menu.

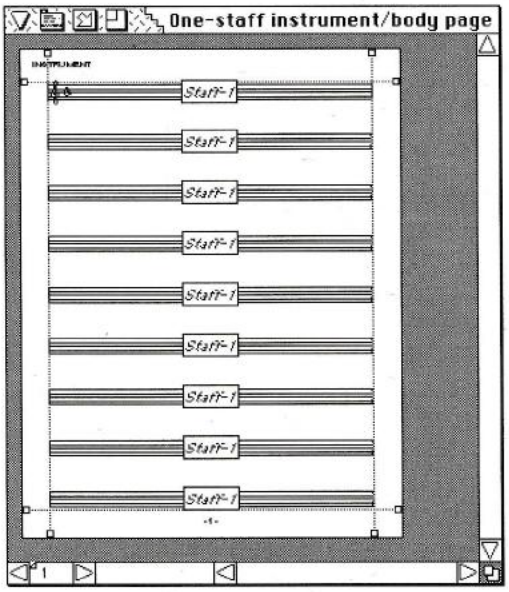
4 Add a new template view by choosing Add from the Templates window mini-menu.

5 Double-click the new template icon to open its window.

6 Choose Paste from the Edit menu.

7 Remove the title, add a page number, additional staff, or whatever you prefer to modify the layout for the body page.

The result will be a page that is similar to the title page:



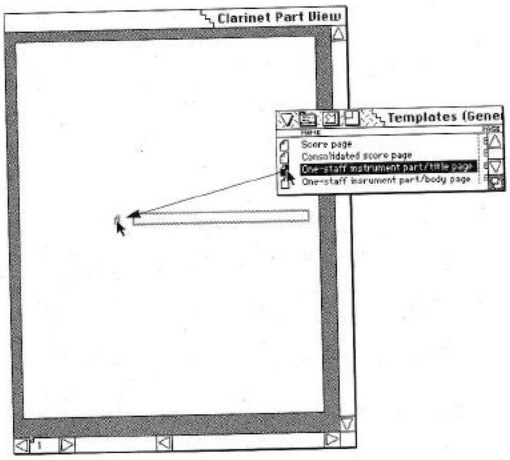
Once you have created this template, you are ready to create instrument views as described in the next section.

CREATING THE INSTRUMENT PARTS VIEWS

Create the instrument parts views one at a time. To create the first one:

1 Add a new page view and open it.

2 Open the Templates window and drag the instrument template onto the new page.



This applies the template page layout to the view page.

3 Position the Staves window either next to or on top of the page view window.

4 Choose Show Layout from the page view mini-menu.

5 Replace the current staff on the page with the appropriate staff in the Staves window.

To do so, drag the staff icon from the Staves window and drop it directly on top of the name of the staff currently on the page. In the example below, the *Clarinet (transposed)* staff is going to replace *Staff-1*. Be sure to drag the transposed staff, if there is one.

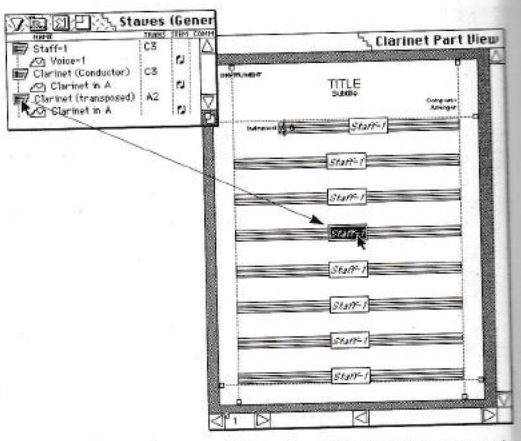


Figure 26-2: To replace a staff in a view with another staff, put the view in Show Layout mode. Drag the new staff from the Staves window onto the label of the existing staff on the page. All instances of the old staff on the page are replaced by the new one.

6 Change any text references to the instrument name on the page by double-clicking them to edit the text.

7 If necessary, choose Add pages from the mini-menu to add more pages to the view.

When adding pages, use the body page template you created for your instrument parts.

8 To create another instrument part, repeat steps 1 through 7.

CHAPTER 27

This chapter covers
considerations when
multiple voices on a

- Choosing a voice
- Entering symbols
- Entering groupin
- Handling stem di
- Splitting and join

stem

For details about cr
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ENTERING NOTE
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Notes will be inserted by keyboard or mouse into the ki voice. To change voices, press command-up arrow or command-down arrow, or click the box and choose the desire name from the pop-up menu provided.

Figure 27-1: Selecting the

Selecting a voice
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CHAPTER 27 Working With Multiple Voices on a Staff

This chapter covers the following important considerations when you are working with multiple voices on a staff:

- Choosing a voice in which to enter notes
- Entering symbols and voice text
- Entering groupings
- Handling stem direction
- Splitting and joining notes that share the same stem

For details about creating a percussion staff, see chapter 28, "Creating a Percussion Staff".

ENTERING NOTES AND RESTS

When entering notes on a staff that contains multiple voices, you enter them in the same manner as you would on a single-voice staff.

However, before you begin entering the notes, you need to choose a voice into which to enter them.

The current voice is displayed in the horizontal scroll bar at the bottom of the view window as shown below:

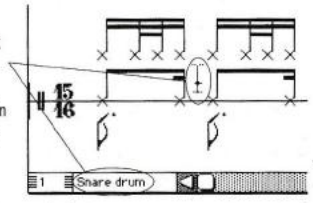


Figure 27-1: Selecting the current voice.

Selecting a voice

There are two different ways to select a voice. One way is to hold down the command key and press the up or down arrow keys.

To select a voice using the command key:

1 Place the insertion cursor at the staff location where you would like to enter the notes.

2 Press command-up arrow or command-down arrow to switch to the desired voice.

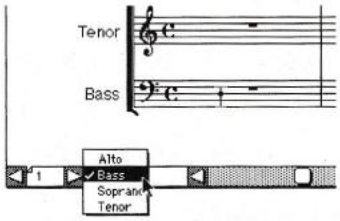
Keep pressing until you see the desired voice at the bottom of the window as shown in Figure 27-1 on page 175.

3 Once you have selected the desired voice, start entering notes.

The other way to select a voice is to press the voice indicator box and choose the name of the desired voice from the pop-up menu provided:

4 Click the Voice indicator box and choose the name of the desired voice from the pop-up menu.

The cursor jumps to that voice.



Using rests and invisified rests

When you enter multiple voices on a staff, you need to use rests or, if preferred, invisified rests to correctly align the beats in each voice.

In the example below, rests have been entered in the first three beats in the top voice so that the fourth beat is aligned properly with the fourth beat of the bottom voice. On the right, the rests have been invisified so that they will not print.

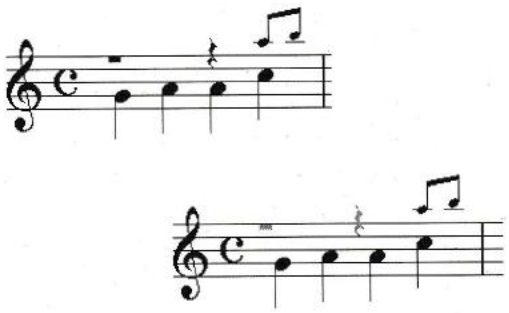


Figure 27-2:: Using rests to properly align notes in multiple voices on a staff. In the second example, the rests have been invisified, so they will not appear in the score when it is printed out.

ENTERING SYMBOLS AND VOICE TEXT

When entering symbols and voice text on a staff with multiple voices and fairly dense music, you want to be careful when inserting symbols (such as articulations ornaments) and voice text (note-specific text). It is easy to attach the symbol or text to the wrong note.

Therefore, the most reliable way to make sure you attach the symbol to the desired note is to click the notehead itself when inserting the symbol. The symbol is placed at a default position, and you can adjust the position from there by dragging it.

For detailed information about inserting symbols, see "Inserting a note-specific symbol" on page 75. For information about inserting note-specific text, see "Voice text" on page 104.

ENTERING GROUPINGS

Groupings can be entered on a staff with multiple voices in the standard fashion: by selecting the desired grouping from the palette and dragging over the desired notes.

However, groupings cannot cross voices. That is, they cannot begin on a note in one voice and end on a note in another voice.

☛ Endings are an exception to this rule because they are attached to measures of a score rather than any particular voice.

In cases where the music is dense, and you cannot easily drag the grouping over a single voice, there is a more precise alternative way to enter the grouping by selecting the start and end note.

To enter a grouping by selecting the start and end note:

1 Click the note where you wish the grouping to begin with the arrow cursor to select the note.

2 Shift-click the note where you wish to end the grouping to select it and leave the first note selected as well.

3 Command-click the desired grouping in the Groupings palette.

CONTROLLING STEM DIRECTION

When working with multiple voices on a staff, stem direction becomes very important.

Each voice can have a default stem direction: stems up, stems down, or either.

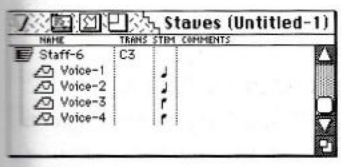
Determining stem direction when you assign voices

When you first add voices to a staff, you can set a default stem direction for each voice as you add it:

To make the voice:	Do this:
Stems up	Option-drag the voice from the Voices window to the staff in the Staves window
Stems down	Command-drag the voice from the Voices window to the staff in the Staves window
Either	Command-option drag the voice from the Voices window to the staff in the Staves window

Assigning multiple voices at the same time

If you drag multiple voices at the same time when assigning them to a staff, the stem directions are automatically configured. For example, if you drag four voices to a staff, the top two voices are assigned stems-up, and the bottom two voices are assigned stems-down.



Changing the default stem direction for each voice

To change the default stem direction for a voice:

1 Double-click the staff icon in the Staves window.

Alternately, you can select the staff and choose Configure from the mini-menu.

2 Click the stem direction icon next to each voice to choose the desired default stem direction for the voice.

When stems are set to both up and down, stem direction is determined by the note placement on the staff: notes in the middle space and up are stems down. Notes below the middle space are stems up.

3 Click OK to confirm your choices.

Flipping stem direction

To flip stems:

1 Select the notes whose stems you wish to flip.

2 Choose Flip from the Format menu.

SPLITTING NOTES THAT SHARE THE SAME STEM

Regardless of voice, notes entered on the same beat with the same stem direction are placed on the same stem.

However, sometimes you might want the notes to be displayed on a separate stems, such as to notate a split part:

Figure 27-3: Examples of notes on the same beat but with separate stems.

To split notes that share the same stem:

1 Select the note or notes that you wish to split.

To select a single note, click it. To select a group of notes, drag a selection box over them. To select all notes in a voice, double-click any note in the voice.

2 Choose Split Notes from the region menu.

At this point, you won't see any difference on the screen; however, the note(s) has been split from its original stem, and you can flip its stem or move it independently as shown in Figure 27-3.

3 If you wish to flip the stem of the separated note, select it and choose Flip from the Format menu.

4 If you wish to move the separated note, drag the notehead.

CONNECTING NOTES ON A BEAT TO THE SAME STEM

Due to stem direction, editing, or other circumstances, you may encounter a situation where you have two stemmed notes on the same beat whose stems are currently separated, and you wish to join them to the same stem.

To join the stems:

1 Select the note you wish to join to a stem.

2 Choose Cut from the Edit menu.

3 Select the stem.

4 Choose Merge from the Edit menu.

AVOIDING COLLISIONS

When you are working with multiple voices on a staff, you will often run into a situation where notes, accidentals, and stems collide.

To fix a note or accidental collision, drag the noteheads or the accidentals horizontally.

To fix a stem collision:

1 Click the stem to select it.

2 Alternative 1: shorten the stem by dragging its handle.

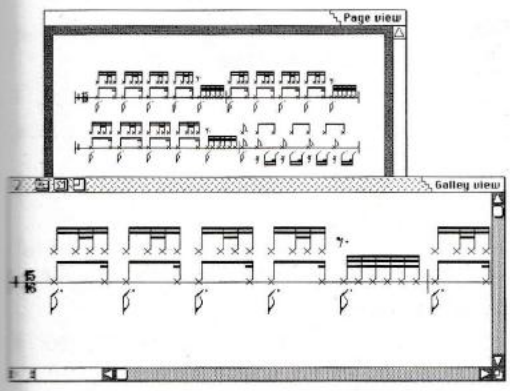
3 Alternative 2: flip the stem by choosing Flip from the Format menu.

EDITING VOICES SIMULTANEOUSLY

Multiple voices on a single staff are edited simultaneously in the same fashion as multiple voices on separate staves. For information, see "Editing several voices at once" on page 137.

CHAPTER 28 Creating a Percussion Staff

This chapter provides some tips on how to build a percussion staff.



SETTING UP THE STAFF

There are several things you'll need to do to set up the percussion staff before entering music.

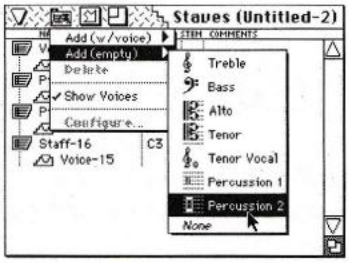
First, you need to create the staff and assign voices to it.

Creating the staff

To create the percussion staff:

1 Choose Add staff (empty) from the Staves window mini-menu.

2 From the hierarchical menu, choose one of the two percussion clefs provided.



3 Click the staff name to pop-edit it.

Creating voices for each drum part on the staff

Next, you need to create a separate voice for each drum part on the staff:

1 Open the Voices window.

2 Hold down the option key and select Add from mini-menu.

3 Add the number of voices you will need.

4 Click the names of the voices to pop-edit them.

Use the down arrow key to scroll the pop-edit box to the next voice.

5 Assign a note range to each voice.

For unpitched percussion, such as a snare drum, the note range consists of a single note. For example, if the snare is displayed on the center staff line, the note range would be B3 to B3.

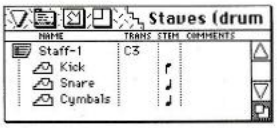
Assigning the voices to the staff

Now you need to assign the voices to the staff:

1 Select the voices.

2 Drag them to the drum staff icon in the Staves window.

The voices appear beneath the staff.

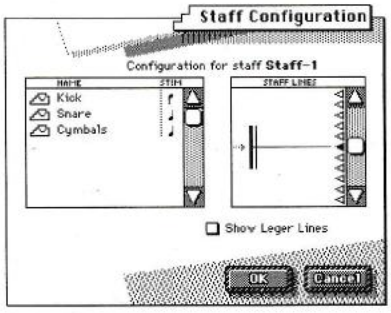


Setting up the staff

You can set up the staff as a single line staff, and you can hide ledger lines:

1 Double-click the icon of the drum staff in the Staves window.

Alternately, you can select the staff and choose Configure from the mini-menu. The Staff configuration dialog appears.



2 Click the staff triangles next to the staff lines to turn off all the staff lines except those that you prefer.

The arrow at the left of the barline indicates the center line. If you want a single-line staff, leave this staff line turned on.

3 Uncheck the Show ledger lines option.

4 If necessary, drag the voice icons to arrange the voices in the order that you prefer.

5 Click the stem icons of the voices to set the default stem direction.

A voice can be stems up, stems down, or both. (Both means that the stem direction is dependent on the pitch.)

6 Click OK to confirm your choices.

Displaying the drum staff in a view

To display the staff, drag it into a view:

1 Open a view.

You can add the drum staff to a new view or an existing view.

2 Drag the drum staff icon into the view at the desired location.

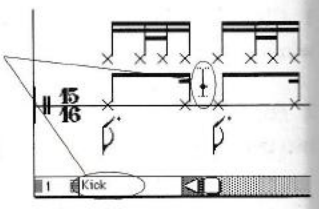
For more information about adding staves to a view, see "Displaying staves in a view" on page 36.

ENTERING NOTES ON THE STAFF

Once the drum staff has been placed in a view, you can enter notes into each voice in the standard fashion.

Make sure that you enter the notes in the proper voice. The current voice is displayed in the scroll bar at the bottom of the view window.

Notes will be inserted by keyboard or mouse into the kick voice. To change voices, press command-up arrow or command-down arrow. Or choose the desired voice from the voice pop-up menu at the bottom of the window.



To switch voices, press command-up arrow or command-down arrow. Or choose the desired voice from the pop-up menu at the bottom of the window.

CHANGING NOTEHEADS

When you first enter the notes, they'll appear as regular noteheads. In addition, any time you add notes to the voice, they'll appear with regular noteheads as well.

In either case, you can change the noteheads to any notehead you prefer, such as an X or a slash.

To change a single notehead:

1 Select the desired notehead from the Noteheads palette.

2 Click the note you wish to change.

To change several noteheads, or all noteheads in the voice:

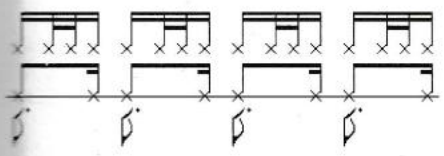
1 Select the noteheads you wish to change.

If you want to change all the noteheads in the voice, double-click any note to select all the notes in the voice.

2 Command-click the desired notehead in the Noteheads palette.

SEPARATING NOTES ON THE SAME STEM

When you enter notes in voices that share the same stem direction, the stems of the notes connect automatically so that the notes share the stem. However, you may want the stems to remain separate so that they can be easily differentiated, as shown in the top two voices below:



To separate the stems:

1 Select the notes in one of the voices you wish to separate.

You only have to select notes in one of the voices, not both.

2 Choose Split Notes from the Region menu.

REBEAMING

While working with multiple voices on a drum staff, you may find that notes need to be rebeamed.

To quickly rebeam the notes:

1 Make sure that Auto Beam is selected in the Format menu.

When Auto Beam is checked, the notes will be beamed in groups that conform with the current meter. If Auto Beam is unchecked, the notes will all be beamed together.

2 Select all the notes that you wish to rebeam.

To select a group of notes, a measure, or a range of measures, drag a selection box over them. To select all the notes in a voice, double-click any note in the voice. To select all notes in all voices, shift-double-click a note in each voice.

3 Choose Beam from the Region menu.

CHAPTER 29

This chapter cover
formatting issues.

- Split a chord no
stem
- Display notes o
the staff on which

SPLITTING NOT

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share the same voi
can be split from t
format them diffe
the opposite direc
left or right.

Figure 29-1: Examples o
chord stem and formatt

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from the existing

To select a single
notes, drag a sele
notes in a voice, c

CHAPTER 29 Special formatting

This chapter covers several miscellaneous formatting issues. It explains how to:

- Split a chord note from the chord onto its own stem
- Display notes on a different staff above or below the staff on which the voice lies

SPLITTING NOTES FROM A CHORD

Notes on the same stem, regardless of whether they share the same voice as other notes in the chord, can be split from the stem. This allows you to format them differently, such as to flip their stem in the opposite direction, or move them slightly to the left or right.

Figure 29-1: Examples of a note that has been separated from its chord stem and formatted as a separate note.

To split a note from a chord:

1 Select the note or notes that you wish to separate from the existing stem.

To select a single note, click it. To select a group of notes, drag a selection box over them. To select all notes in a voice, double-click any note in the voice.

2 Choose Split Notes from the region menu.

At this point, you won't see any difference on the screen; however, the note(s) has been split from its original stem, and you can flip its stem or move it independently as shown in Figure 29-1.

3 If you wish to flip the stem of the separated note, select it and choose Flip from the Format menu.

4 If you wish to move the separated note, drag the notehead.

WRITING CROSS-STAFF NOTATION

In piano scores or other keyboard notation, a line of notes being playing by the left or right hand may travel across to the other staff momentarily in order to clearly notate the pitches. To indicate that the notes should be played by the same hand, they are connected in some way, either by a beam, a slur, or other grouping. If the note is a single note, its stem will extend all the way back to the original staff.

To write cross-staff notation in this fashion, see "Beaming across staves" on page 65.

CHAPTER 30

This chapter exp
standard MIDI f

- What a MIDI
- Why working
- How to open (
- How to save (e
MIDI file

☛ Please note!
MIDI files, this c
open them with
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selecting the MI
clicking Save. Se
page 186 for a de
translated into a

WHAT IS A MI

MIDI is an acron
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electronic music
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CHAPTER 30 Importing and Exporting Standard MIDI Files

This chapter explains how to open and save standard MIDI files. It explains:

- What a MIDI file is
- Why working with MIDI files is beneficial to you
- How to open (import) a MIDI file
- How to save (export) your music in Mosaic as a MIDI file

☛ Please note! If you are familiar with handling MIDI files, this chapter contains no surprises: you open them with the Open command in the File menu, and you save them by choosing Save As and selecting the MIDI file format option before clicking Save. See "Importing a MIDI file" on page 186 for a description of how the MIDI data is translated into and from voices and tracks.

WHAT IS A MIDI FILE?

MIDI is an acronym for *Musical Instrument Digital Interface*. It is a standard specification that was developed by electronic music instrument manufacturers and music computer companies in the early 1980's to standardize the way in which electronic music instruments and computers communicate.

A MIDI file conforms to the MIDI standard specification. Since many companies subscribe to the standard, a MIDI file can be read (opened) by any software that supports the standard. This provides universality between products, making it easier for you to work on your music with any company's product.

A MIDI file contains musical performance information: what notes were played, when they were played, how hard or softly they were played, and so on. This information is recorded by a sequencer, and then the sequencer stores and makes a record of the performance information as a MIDI file.

For example, you can record an entire song--as many tracks as you need--into a sequencer like Performer, and then make Performer save your performance as a standard MIDI file. The MIDI file contains all the nuances of your performance, and it stores all the tracks in their original form as separate tracks.

WHAT DO MIDI FILES OFFER?

Mosaic's MIDI file capabilities allow you to transfer music to and from other music software that also opens and saves MIDI files, such as:

- Another notation program
- A MIDI sequencer such as Performer
- Music software on another type of computer, such as an IBM PC or compatible

Transferring files to and from Performer

MIDI files offer a way for you to play your music from a MIDI keyboard, record it into a sequencer such as Performer, and then transfer the sequence into Mosaic to notate and print it.

Playing in music from a keyboard or other MIDI controller

Recording and playing back music using a MIDI sequencer like Performer offers many benefits. Some of the most important ones are as follows:

- If you have good keyboard skills, you can enter music much more quickly and efficiently by playing it into a sequencer than by typing it directly into Mosaic.

- If you cannot play or type very fast, but you have a MIDI controller such as a guitar or wind controller, you can enter notes more efficiently with it.

- You can hear the music as you enter it, which allows you not only to enjoy listening to it, but also to check it for pitch and rhythmic errors.

- MIDI sequencing software like Performer offers powerful editing capabilities that Mosaic does not provide, such as customized transposition mapping.

IMPORTING A MIDI FILE

Mosaic intelligently interprets the musical data that it reads from a MIDI file. Mosaic correctly notates unquantized MIDI data, so there is no need for you to quantize your MIDI file before you open it with Mosaic.

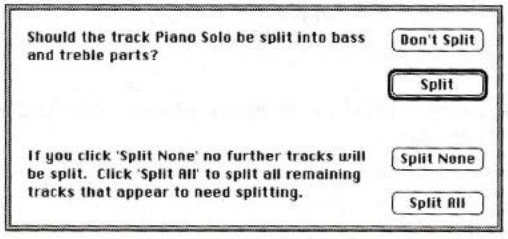
To import (open) a standard MIDI file into Mosaic:

1 Choose Open from the File menu.

2 Select the MIDI file you wish to open.

3 Click Open.

You may see a dialog that asks you about splitting tracks into piano staves. Choose the desired option.



There are three types of standard MIDI files:

- Format 1: MIDI data is saved as separate tracks.

- Format 0: MIDI data is saved as a single, multichannel track.

- Format 0/tempo and meter information only.

Mosaic can open all three types.

How MIDI file tracks are imported

When opening a MIDI file, Mosaic:

- Places the music in each separate MIDI channel in a separate voice and staff.

- Preserves track names by making them the name of the voice and staff on which the music is placed.

- Chooses the appropriate clef (bass or treble) for each track. If most of the notes are above middle C, it uses a treble clef; if most notes are below, it uses a bass clef.

- If the track contains many notes in both the bass and treble clefs, Mosaic gives you the option of splitting the track into a grand staff with a treble and bass clef.

EXPORTING A MIDI FILE

When exporting a MIDI file, Mosaic saves each voice in the file as a separate track. The voice name becomes the track name. Meters and key signatures are preserved.

To export a MIDI file:

1 Choose Save As from the File menu.

2 Type a name for the file.

3 Select the MIDI file format option.

4 If desired, choose a disk and folder in which to save it.

5 Click Save.

APPLYING TEMPLATES TO IMPORTED MIDI FILES

This section explains how to apply Mosaic page layout templates to a Standard MIDI File (SMF) or Professional Composer™ file that you have just opened in Mosaic. This procedure may be useful if, for example, you want use our template files (i.e. Piano Staff Template) as the page layout for an imported file. Because you won't have to create the page layout format yourself, this will save time.

For the purposes of this tutorial, we will use a sequenced piano example saved as a Standard MIDI File and apply the Mosaic Piano Staff Template included with Mosaic in the Template Files folder.

The Procedure Outlined

The basic steps for applying a Mosaic Template from a template file to an imported file are:

1 Open the Standard MIDI file and the Template file.

2 Copy the Page View layout from your Template file and paste it onto a new Page View of your Standard MIDI file.

3 Use staff replacement to replace the Staves and Voices with the Staves and Voices in the Standard MIDI file.

4 Copy the newly formatted Page to a Template View.

5 Apply the Template to pages of your Standard MIDI File Page View.

Getting Started

To begin, launch Mosaic and open a Standard MIDI file (SMF). Mosaic will convert the SMF. Then, open the Piano Staff Template included in the Template files folder on the Mosaic Utilities disk. You should now have two Mosaic files open.

Now copy the Page View Layout from the Piano Template File. To do so:

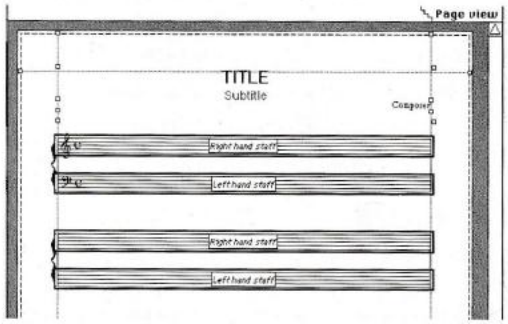
1 Open the Views window from the Piano staff template file.

2 Double-click the Page View icon in the Views window to open the Page View.

3 Select Show Layout from the mini-menu.

4 Choose Select All from the Edit menu.

5 Select Copy from the Edit menu.



The layout is now copied to the clipboard. To apply the layout onto a new page in your Standard MIDI file, you must create a new page and paste the layout onto the page. To do so:

1 In the Standard MIDI file, Open the Views window.

2 From the mini-menu, choose Add Page.

3 Double-click the Page View icon to open the blank page window.

4 Select Paste from the Edit menu.

The layout is now pasted onto a new page. This page layout includes the same Staves and Voice assignments from the Piano Staff Template file. (Note: Mosaic has added these additional Voices

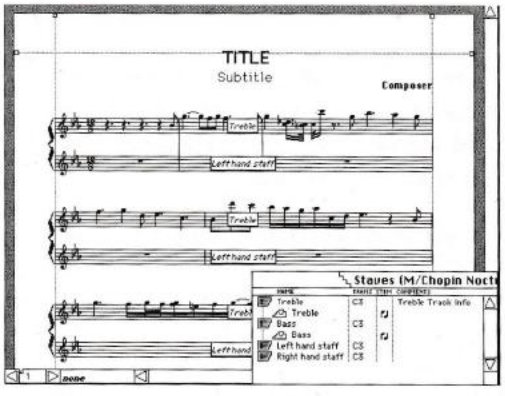
and Staves the bottom of the Standard MIDI file's Voices and Staves windows). Since we need to create a page layout template with the staff and voice assignments from the Standard MIDI file, we need to re-assign the current Voices and Staves with the Voices and Staves from the Standard MIDI file. This procedure is called *staff replacement*. To do so:

1 Select Show Layout from the Page View mini-menu.

2 Open the Staves window of the Standard MIDI file.

3 Select the first staff in the Staves window (Treble, in the MIDI file), and drag the staff icon onto the Page View so that the name of the first staff in the Page View (Right Hand Staff, from the Piano Template file) highlights.

Note: after staff replacing, the events from in the Standard MIDI file flow thru the once empty staff.



4 Repeat this procedure for the Bass clef staff.

After replacing the staves in a Page View, we can now create usable templates in the converted Standard MIDI file. To do so:

1 Choose Show Layout from the Page View mini-menu.

2 Choose Select All from the Edit menu.

3 Choose Copy from the Edit menu.

4 Open the Templates window in the converted Standard MIDI file.

5 Choose Add from the Template window mini-menu.

6 Optional: click the Template name to pop-edit and rename the Template.

Type in Title Score Template, for example.

7 Double-click the template icon to open a blank Template View.

8 Choose Paste from the Edit menu.

You have just loaded a Template file, which you can now apply to your converted Standard MIDI file. This procedure works with any file's staff layout, even full orchestral scores. Repeat the above procedure for every Template you want to load, including full score templates and part templates.

To utilize the newly created Template:

1 Open the Views window of the converted Standard MIDI file.

2 Choose Add Page from the Views window mini-menu. Double-click the page icon to open a blank Page View.

3 Choose Page Layout Setup from the Page View mini-menu.

4 Select the Title Page Template in the Page Layout Setup dialog box.

5 Click OK.

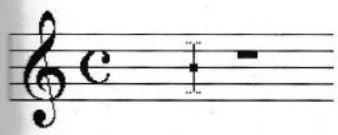
CHAPTER 31 Creating Rhythm Slash Notation

Rhythm slash notation as shown below in Figure 31-1 is common in charts produced for commercial purposes.

To produce rhythm slash notation such as this:

1 Place the insertion cursor on the center line of the staff.

Be sure the insertion cursor is in the voice that you want if you have more than once voice on the staff.



2 Enter regular notes in the rhythm that you would like.

For example, if you want four quarter-note slashes, enter four quarter notes. Notice that the notes are entered on the center line. This aligns the slashes properly with respect to the staff. You are not limited to quarter notes, however. You can enter any duration that you like.

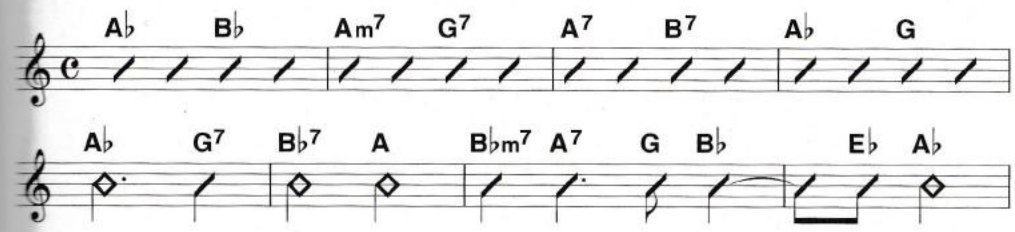
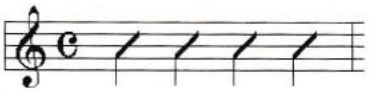


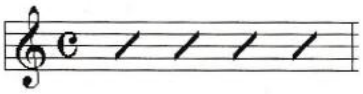
Figure 31-1: Rhythm slash notation.

3 Once you have entered the desired rhythms, change the noteheads to the rhythm slash notehead at the bottom of the noteheads palette.

See chapter 25, "Using Special Noteheads" for more information on how to do this. This chapter provides many useful shortcuts for changing noteheads.



4 If you would like to remove the stems, select the notes and choose Hide Stems from the Format menu.



5 You can now enter chord symbols above the rhythm slashes. See chapter 17, "Chord Symbols" for more information.

CHAPTER 32

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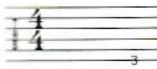


6th string, 3rd fret

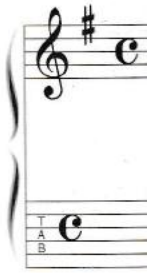


Figure 32-1: Tablatur

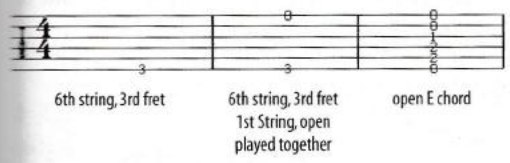
CHAPTER 32 Creating Guitar Tablature

This chapter explains how to create a tablature staff to accompany a standard notated staff. This can be useful for guitar parts as shown in the example in Figure 32-1.

This chapter assumes that you are familiar with entering standard notation in Mosaic via the Macintosh keyboard or MIDI instrument, and that you are familiar with the fretboard of the instrument that you are writing for.

TAB EXPLAINED

Tablature (TAB) notation graphically represents a stringed instrument's fretboard. By placing a TAB notehead on the appropriate line, the string and fret of any note can be indicated. For example:



6th string, 3rd fret | 6th string, 3rd fret 1st String, open played together | open E chord

Setting up a Guitar TAB staff is a multi-step process:

1 Create two grouped staves, one treble clef staff for standard notation and one TAB staff for tablature notation.

2 Configure TAB staff with six staff lines.

3 Enter note durations on the appropriate staff line.

4 Alter the noteheads to fret numbers using the TAB noteheads palette.

5 Hide Stems, if you choose.

While the examples in this section concentrate on guitar TAB, these techniques can also be applied to bass guitar, dulcimer and banjo. Let's get started.

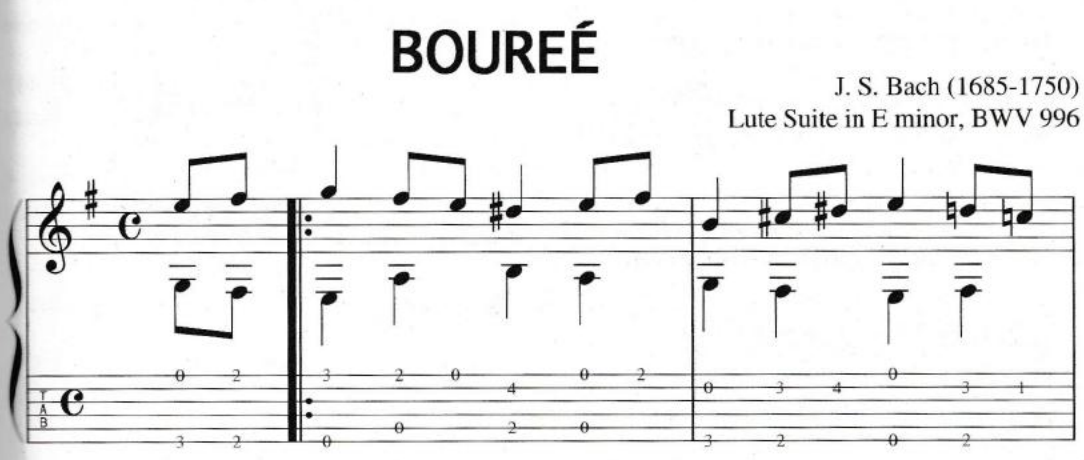


Figure 32-1: Tablature example.

Getting started

To begin, open a New File. To duplicate the example above, we must create two staves in the Staves window and four voices in the Voices window.

1 Choose Staves from the Windows menu.

2 Choose Add (w/Voice) from the Staves window mini-menu to add a staff.

You should then have two staves in the Staves window.

3 (Optional) Click on the staff names to pop-edit the names.

Name the first staff Guitar and the bottom staff Tab-Guitar.

4 Choose Voices from the Windows menu.

5 Press the option-key and choose add from the Voices Window mini-menu.

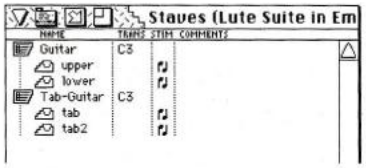
Add two additional voices (you should now have four total voices in the Voices window).

6 (Optional) Click on the voice names to re-name your voices.

Name your voices upper, lower, tab, tab2.

7 With both the Staves window and Voices window open, drag your unassigned voices to the Staves window.

You should have two voices assigned to the top staff and two voices assigned to the bottom staff.



8 In the Staves window, double-click on the Guitar staff icon to open the Configure Staff window.

Click in the Stems column to assign the top voice with stems up and the bottom voice with stems down.

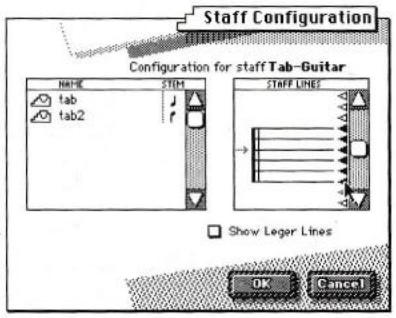
Configuring the TAB staff

Since each line of a TAB staff graphically represents strings on the instrument, you must create a staff with staff lines equal to the number of strings on the instrument. In our example, we have created a guitar TAB staff with six staff lines. However, if you were writing for the bass guitar, you would configure a staff with four staff lines. To configure a guitar staff:

1 With the Staves window open, double-click the Tab-Guitar staff icon to open the Staff Configuration window.

2 Click the staff triangle below the last staff line to add an additional line.

You should now have six staff lines.



3 Click OK.

Entering data onto the TAB staff

To enter your staves into a Galley View:

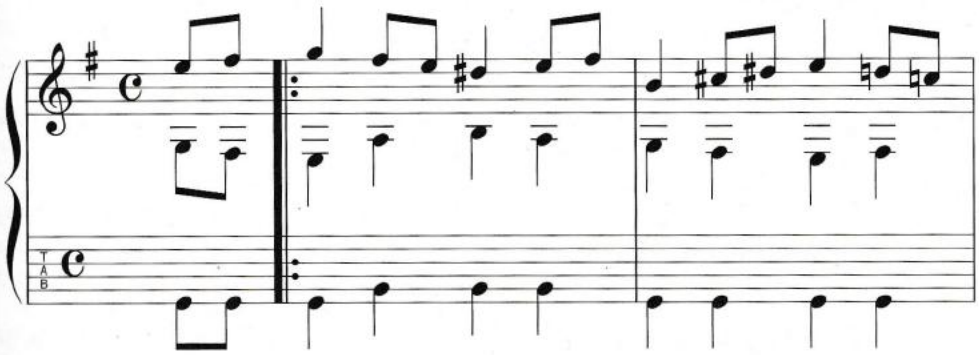
1 With the Staves window open, select your Tab-Guitar staff icon and drag it onto your Galley View.

You should now have two staves in your Galley View.

2 Place the cursor on the Tab-Guitar staff in your Galley View and choose Change Clef from the Regions menu.

3 Change the clef to TAB.

You are now ready to input music. You should already be familiar with inputting standard notation via the Mac keyboard or a MIDI keyboard. For the purposes of this tutorial, we will concentrate on inputting onto the TAB staff. Click onto your TAB staff and enter notes on the appropriate string. To enter the TAB example below:



1 Click onto the staff so you have a blinking cursor on your TAB staff.

2 Use the up/down arrow keys so that your blinking cursor appears on the bottom staff line.

This line represents the low E or 6th string of the guitar.

3 Select the eighth note duration from the Notes Palette.

4 Press the Macintosh Return key to enter two eighth notes.

5 Follow the above procedure for the remaining notes.

Be sure that you enter the correct duration and appropriate sting on the TAB staff. You should never have a note entered in a space on a TAB staff.

Once you have the lower TAB line entered above, we can begin to alter your noteheads to TAB noteheads. Once again, the notehead numbers represent the fret location on the string. To change the noteheads:

1 Open the Noteheads Palette from the Palettes menu.

2 Click number 3 in the Noteheads palette to select it.

Number 3 will appear highlighted in the palette.

3 With the arrow cursor, click onto the first eighth note on the TAB staff in the Galley View.

Your notehead will change to a 3 (third fret of the 6th sting or G below middle C, the corresponding pitch from the Guitar staff above).

4 Repeat this procedure for the remaining notes.

Speed entry of TAB noteheads

You can speed up the entry of TAB noteheads by selecting identical notes and command-clicking the TAB notehead number. This will alter multiple notehead types (i.e. change all selected noteheads to 3). To do so:

1 Drag a select box around a group of notes.

To select non-adjacent notes, hold the shift-key down and click onto the individual noteheads.

2 Hold down the command-key and click onto a TAB notehead in the TAB palette.

All selected notes will change to the appropriate TAB number.

3 Repeat this process for similar groups of noteheads.

Cleaning up

The string and fret are now indicated on your TAB staff. To clean up the file, unbeam and hide the stems. This will make the TAB staff look nicer by only displaying the fret number and string. Some forms of TAB notation display beams and stems, thus, this step is optional. To unbeam figures which are beamed:

1 With the arrow cursor, click onto the beam.

It will display as selected when the "handles" on the beam display.

2 Press the Delete key on your Macintosh keyboard.

The selected grouping will unbeam.

To Hide Stems in the score:

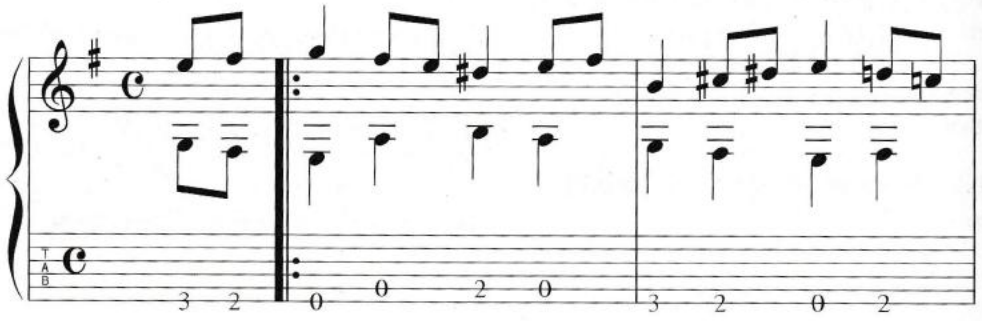
1 Drag a select box with the arrow cursor to select all the events in you TAB staff.

The notes will appear white and enlarged when selected.

2 Choose Hide Stems from the Format menu.

You should now have a score which resembles the score below. Continue the entry procedure to complete the upper TAB voice and the remaining measures.

You may also want to make the numbered notesheads larger. To do so, select them again, choose Scale from the Format menu, type in 150% and click OK.



CHAPTER 33 Exporting Music Notation to Other Programs

Mosaic provides you with the ability to export music notation to desktop publishing, word processing, graphics, or other software. Mosaic provides two different ways to accomplish this:

- Pasting Mosaic notation via the Macintosh Clipboard into the other program (as a PICT graphic)
- Exporting music notation from Mosaic as an Encapsulated PostScript (EPS) file

In general, the pasting method is easiest--especially if you are pasting short excerpts--and should work well for most desktop publishing applications. Dedicated graphics and graphic design programs usually do better with or require EPS files.

USING PICT CAPTURE

The *PICT Capture* command lets you export any portion of a page, from a single note to the entire page, as a standard PICT graphic. From the Clipboard, the notation can be pasted into the Macintosh Scrapbook or any program that supports standard PICT graphics. Exported music retains its engraved appearance when printed on PostScript printers such as laser printers and phototypesetting machines. Mosaic's PICT output provides the best print quality that your printer is capable of.

☛ Some graphics programs do not support the conversion of PICT elements such as "clipping paths" or "imbedded PostScript", which is how Mosaic creates some of its non-font graphics such as slurs and beams. Mosaic's PICT output to these programs may produce unpredictable results. Most word processors and page layout programs do not have this problem. You can test your graphics program by pasting a captured PICT from Mosaic into the Scrapbook. If it looks correct in the Scrapbook but incorrect when pasted into your graphics program, then your graphics program probably does not support the conversion of these PICT elements.

Pict Capture only works in page views. The menu command greys out for galley views. If you have material that you would like to export, place it in a page view.

To use PICT Capture:

1 Open the page view that contains the music.

2 Choose the desired zoom level from the view window mini-menu.

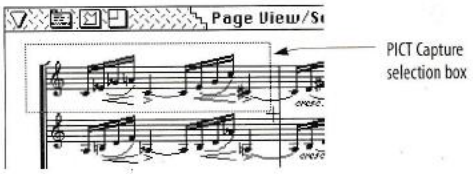
Mosaic captures notation exactly as it is displayed in the view window, including the current magnification setting for the view. The magnification setting is not crucial if the graphics software you are exporting to allows you to scale PICT graphics to any size.

3 Choose PICT Capture from the Edit menu.

The cursor turns into a cross-hair.

4 Drag a selection box over the region you wish to capture.

Mosaic captures exactly what you select within the borders of the selection box. You don't need to include whole objects. In the example below, the tie and staff lines that extend past the edge of the selection box will get cut off at the selection box border.



That's it! When you release the mouse, the region you selected is placed on the Macintosh clipboard as a standard PICT graphic with embedded PostScript.

5 Switch to other software and use the Paste command in the Edit menu to place the exported music.

Figure 33-1: This is the Mosaic excerpt from above pasted into FrameMaker, the desktop publishing program used to produce this manual.

When you import a Mosaic-generated PICT into another application, make sure that all Mosaic fonts (Sonata, MosaicFont, and FretBoard) are installed in the system and available to the other application.

EXPORTING AS A POSTSCRIPT FILE

The Macintosh system software allows you to export a page of music as an Encapsulated PostScript (EPS) File on disk. The resulting file can be imported into other software programs which import EPS files. This process is a way to export music into Postscript compatible page-layout programs like Aldus Freehand and Adobe Illustrator.

☛ This procedure requires LaserWriter 8.1.1 (or higher). For information, see "LaserWriter 8.1.1 (or higher) is required for EPS export" on page 8 in the Mosaic *Getting Started* book.

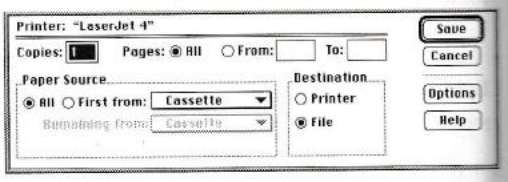
To export music to an EPS file:

1 Make sure that LaserWriter 8.1.1 (or higher) is selected in the Chooser.

2 Open the view you wish print.

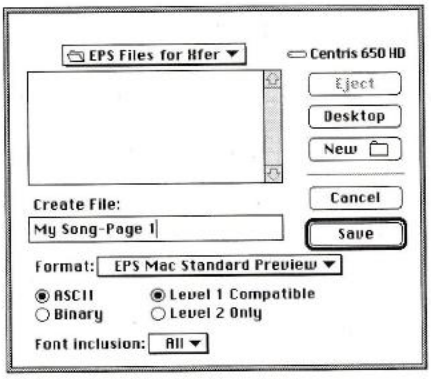
3 Choose Print from the File menu.

4 For the destination, choose File.



5 Click Save.

A dialog box appears asking you for information about the file. Try choosing the options shown below. You may need to experiment with them to achieve best results with your graphics program.



☛ Don't use the "Postscript Job" option. It does not create an EPS file and most programs won't be able to import it. Only use the EPS options.

6 Click Save.

The resulting file can be imported into the other program; consult the documentation of the other program for information.

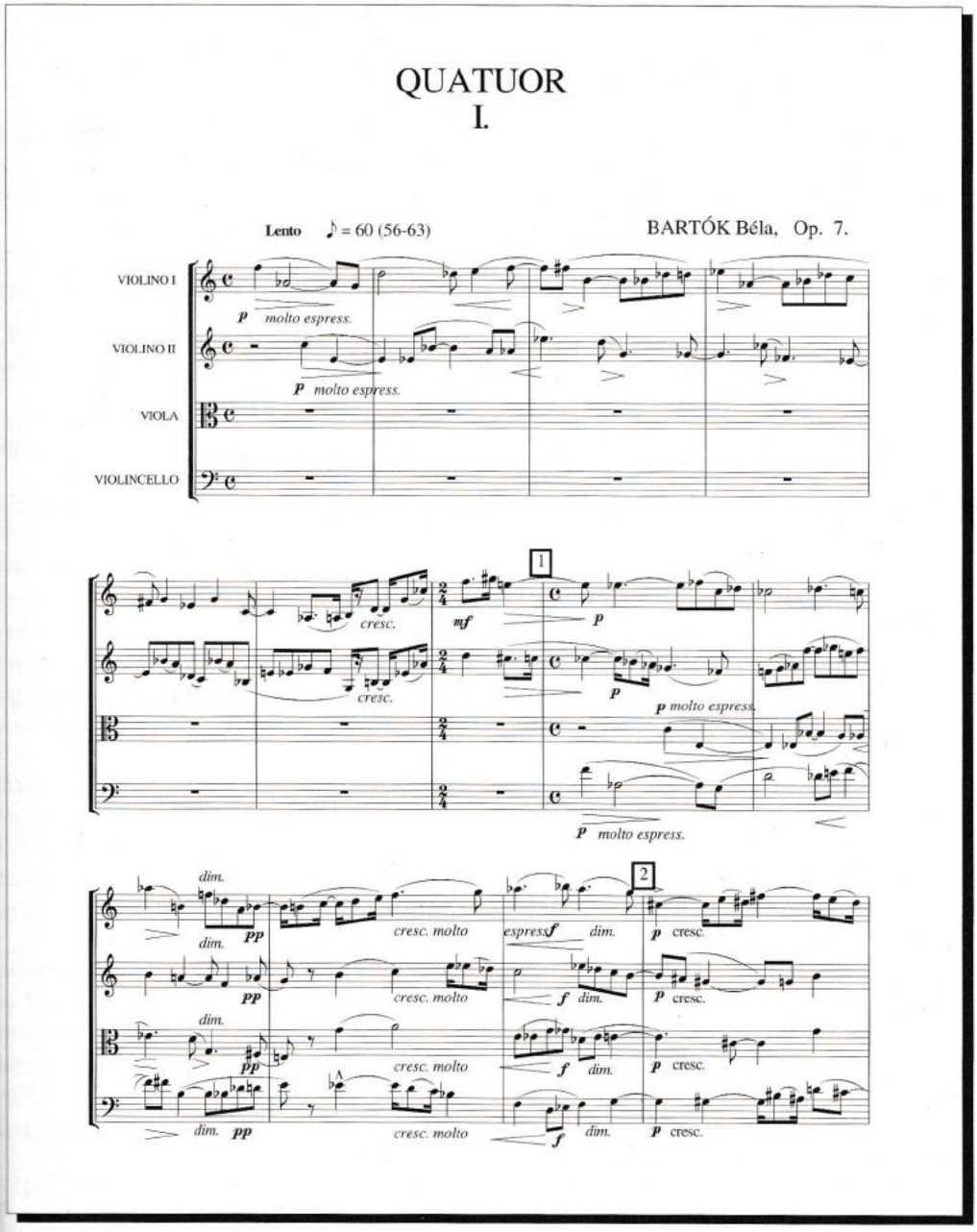


Figure 33-2: Sample of a Mosaic-generated PICT which has been imported into FrameMaker, the desktop publishing software used to produce this manual.

CHAPTER 3

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CHAPTER 34 MIDI Recording and Playback

Mosaic provides you with the ability to record, play back, and step-enter music via a MIDI keyboard or other instrument. You can:

- Step-enter notes (one at a time) from your MIDI keyboard
- Record music in real time by playing along with a metronome click
- Split left- and right-hand keyboard parts onto two separate staves

Preparing for MIDI recording and playback

Before you proceed with this chapter, you must make the preparations necessary for MIDI playback and recording in Mosaic. These preparations are explained in detail in chapter 3, "Preparing for MIDI Recording and Playback" (page 13) of the *Getting Started* book that accompanies this User's Guide.

ASSIGNING PLAYBACK FOR EACH VOICE

Mosaic has the ability to play each voice in your Mosaic score on a MIDI instrument, such as a MIDI keyboard or sound module, that is connected to your Macintosh via a MIDI interface.

Each voice in the Voices window can be assigned to any MIDI channel on any available MIDI instrument. Before you begin recording and playing back MIDI data in Mosaic, the first thing you'll want to do is make these playback assignments. To do so:

1 Open the Voices window.

2 Press in the "Play/ch" column next to each voice and choose the desired MIDI device and channel from the pop-up menu that appears as shown in Figure 34-1.

The list of MIDI devices in the pop-up menu is provided by FreeMIDI. You can change what's in the list by using the FreeMIDI Setup program that is included with Mosaic.

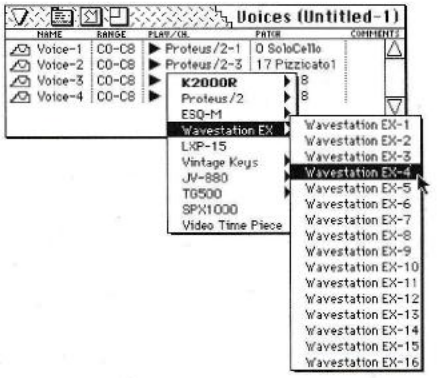


Figure 34-1: Choosing a MIDI playback device and channel for a voice. The list of MIDI devices is provided by FreeMIDI. You can change what's in the list by using the FreeMIDI Setup program that is included with Mosaic.

Choosing a sound (patch) for each voice

The "Patch" column in the Voices window provides a pop-up list of MIDI patch changes for each voice, from which you can choose the desired patch. The pop-up patch list either displays generic names (i.e. "Patch 1", "Patch 2", etc.) or the actual names of the sounds in the MIDI device chosen in the "Play/Ch" column. For example, Figure 34-2 shows the pop-up patch list for the Proteus/2 sound module from E-mu Systems.

Any FreeMIDI-compatible patch librarian software can provide patch names as shown in Figure 34-2 for most popular MIDI synthesizers and sound modules. Examples of such software are:

- PatchList Manager™, a simple librarian program that is included free of charge with Mosaic
- Unisyn™, Mark of the Unicorn's universal editor/librarian software

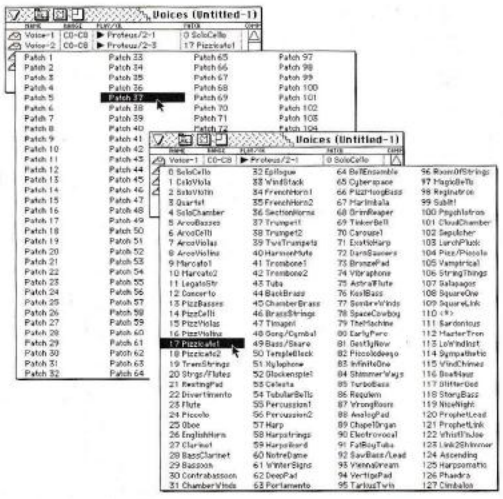


Figure 34-2: A generic patch list on the left, and the patch list for the E-mu Systems Proteus/2 sound module on the right. Any FreeMIDI-compatible patch librarian software can provide patch names as shown on the right. Examples of such software are the PatchList Manager program that is included free of charge with Mosaic, and Unisyn, Mark of the Unicorn's universal editor/librarian software.

If you do not have Unisyn or another FreeMIDI-compatible universal editor librarian program, and you would like to see patch names as shown on the right in Figure 34-2, see chapter 7, "Using PatchList Manager" (page 83) in the Mosaic *Getting Started* guide.

Using a different sound or instrument for each voice

If you have a multi-timbral MIDI synthesizer or MIDI sound module (one that can play different sounds on several MIDI channels simultaneously), you can hear Mosaic play multiple instruments simultaneously by assigning voices in your Mosaic manuscript to different MIDI channels on your sound module. Then select the desired patch on each channel of the sound module.

If your synthesizer is not multi-timbral, all voices will play back using the same sound. See your MIDI dealer for information about the many inexpensive MIDI sound modules now available.

Patching thru to a sound module

Once you have assigned each voice to the proper MIDI channel and you have selected the desired "patch" (sound) on each channel of your sound module, you will always hear the correct sound when you record into Mosaic. This is because of Mosaic's patch thru feature. Patch thru takes any notes received by Mosaic and echoes (plays) them through the MIDI channel(s) assigned to the voice which currently holds the insertion cursor, as shown below:

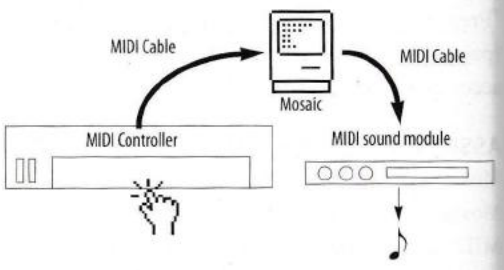


Figure 34-3: Here is an overview of how Patch Thru works. You press a key on your controller keyboard. The note gets sent to Mosaic. Mosaic determines which voice (MIDI channel) the note will be echoed on by the voice that currently holds the insertion cursor. It then sends the note to that channel. A sound module set to receive on that channel plays the note using whatever sound (patch) is currently selected on that channel.

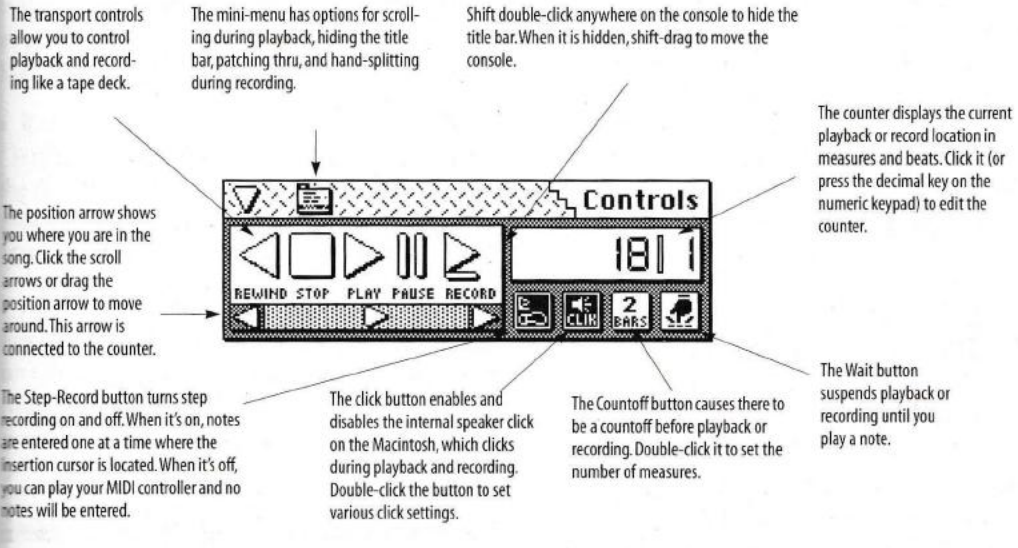
To switch to a particular sound, just place the insertion cursor in the voice assigned to that channel and sound.

If you don't want to hear the sound module, you can turn off patch thru by unchecking the "Patch thru" command in the Controls window mini-menu (described in the next section).

THE CONTROLS WINDOW

The Controls window serves as a control center for Mosaic's playback and recording features, and it is similar to Mark of the Unicorn's popular MIDI sequencing software, Performer®. Below is a summary of features.

The Controls window floats on top of all other windows, much like Mosaic's palettes. To open it, choose "Controls" from the Windows menu. To close it, click its close box. To close it when the title bar is hidden, choose "Controls" from the Windows menu.



Hiding the title bar

To make the Controls window smaller and less obtrusive, you can hide the title bar. Here is a summary of what to do:

To do this:	Do this:
To hide the title bar	Choose "Hide title bar" from the mini-menu, or shift-double-click anywhere on the console
To move the window (with the title bar closed)	Shift-drag it
To restore the title bar	Shift-double-click anywhere on the console

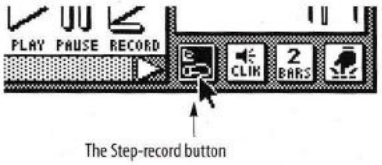
STEP-RECORDING (ONE NOTE AT A TIME)

Step recording is one of the fastest and most convenient ways to enter notes into Mosaic.

☛ If you have a multi-timbral sound module, and you would like to hear the notes play with the correct sound on each voice as you step-enter, see "Choosing a sound (patch) for each voice" on page 199 before proceeding below.

To step-record notes into Mosaic:

1 Open the Controls window by choosing it from the Windows menu and check to make sure that the Step-record button is highlighted.



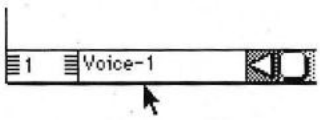
The Step-record button

Once you have checked this button, you can close the controls window; it does not need to be open for step entry.

2 Indicate where you would like to enter the notes by clicking any staff at the desired measure and beat location.

For more information about moving the insertion cursor, see "Moving the insertion cursor" on page 55.

3 Determine the voice that you would like to enter the notes into by pressing command-up arrow or command-down arrow to select the desired voice.



As you do so, watch the current voice name in the voice indicator box at the lower left hand corner of the view window. Alternatively, you can click the current voice name, type the desired voice name, and press return. See "Switching the insertion cursor to a different voice or staff" on "Switching the insertion cursor to a different voice or staff" on page 54.

4 Select a duration for the notes by pressing command-open bracket ([ ) and command-close bracket ( ]) to cycle through the durations in the notes palette.

Alternately, press 1 for whole note, 2 for a half note, 4 for a quarter note, 6 for a sixteenth, and 8 for an eighth note.

5 If the notes you are entering are tied, or if they belong in a tuplet, click the tie or tuplet tool in the Groupings palette.

This let's you enter the tie and/or tuplet at the same time as the notes--a real time saver. If the tuplet is anything other than a triplet, you'll have to double-click the tuplet tool to configure the tuplet before you proceed.

6 Enter the note or chord by playing the desired pitch(es) on your MIDI controller.

7 To enter more notes or chords of the same duration, just keep playing.

You don't have to reselect the same duration.

8 To enter notes of a different duration, press the appropriate duration key before playing them.

9 If you are entering tuplets or ties at the same time as the notes, you can turn them off at any time by clicking the tuplet or tie palette icon.

10 You can stop at any time to play or edit what you have entered.

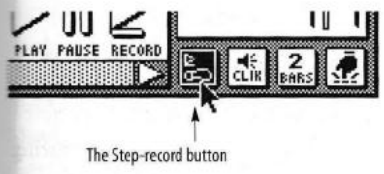
Beams, barlines, and note spellings

Step-entry is the same as Macintosh keyboard and mouse entry with regard to auto-beaming, auto-barring, and note spellings. For example, if Auto-beam is checked, notes will be automatically beamed as you play them. If Auto-bar is checked, Mosaic will automatically place the correct number of beats in each measure with respect to the current meter. For more information about these features, refer to the Mosaic manual.

Troubleshooting

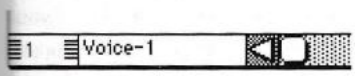
If you don't see notes appear on the screen after completing steps 1-2 above, run through the checklist below. If you find anything awry when going through these steps, correct the problem and try again to enter notes into Mosaic. If you still get no response, proceed through the rest of the check list:

- Make sure your MIDI keyboard (or other controller) is turned on.
- Make sure that a MIDI cable connects the MIDI OUT of the keyboard to the MIDI IN of the interface.
- Make sure that the MIDI Interface is connected to the modem port (marked with a telephone icon) or printer port (marked with the printer icon). Make note of which port is being used for later.
- Run the FreeMIDI Setup program and turn to "Testing for MIDI input and output" on page 27 of the *Getting Started* book to make sure that FreeMIDI can successfully send MIDI data to your MIDI instruments.
- After you have checked all of the above items, run Mosaic and open a new or existing file. Make sure that the Step Record button is highlighted (black) in the Controls window in Mosaic.



The Step-record button

- Click the insertion cursor on any staff, and make sure that a voice name appears in the voice box at the bottom left-hand corner of the view window. A voice must be displayed here for MIDI entry to be successful; MIDI entry won't work if it says "none".



- Play a note. (Drum roll, please!)
- If you still don't see the note appear on the staff, try following the MIDI preparation procedure again from the beginning.
- If you still have trouble, contact Mark of the Unicorn technical support.

PLAYING BACK

Before you play back, the first thing you need to do is choose the MIDI instrument you with to play each voice on. This is explained earlier in this chapter in "Assigning playback for each voice" on page 199.

Choosing which voices to play

Each voice in the Voices window has a play-enable button next to it. If the button is black, the voice will play; if it is white, the voice will not play. Click the button to toggle its status. To quickly solo one voice, option-click its play button. To quickly play-enable all voices, double-click any play-enable button.

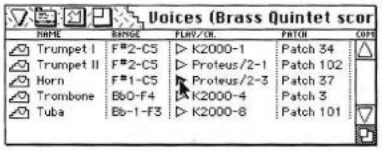


Figure 34-4: Here, the horn voice has been soloed by option-clicking its play-enable button. To play-enable all voices again, double-click any play-enable button.

Setting a tempo for playback

To set the tempo for playback, insert a metronome marking at the beginning of the piece or wherever you would like to play back. If you don't want to keep the metronome marking, you can delete it when you are done playing.

Choosing where to start playback

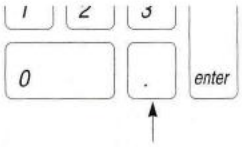
During playback or recording, the Counter displays the current playback or recording location in measures and beats. When Mosaic is stopped, the counter displays where playback or recording will begin when you press play or record.

There are several ways to change the current counter location. If you are familiar with Performer, some will be familiar to you:

■ Click the counter to highlight it. Use the tab key or decimal key to move between the measures and beats. Type in the measure and/or beat you'd like. If you make a mistake in entering a value, press the backspace key or click on the field again and re-enter the value. Press return to complete the edit.

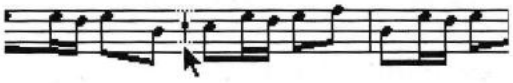
OR

■ Press the decimal key on the Macintosh keypad. Doing so highlights the measure field in the main counter, and you can use the tab, decimal, and numeric keys as above.



OR

■ Click on a staff in a page or galley view at the desired location.



OR

■ Use the position arrow below the main transports to cue to the desired location.

☛ Note! If you have "Auto-scroll" or "Scroll on stop" enabled in the Controls window mini-menu, the topmost window will scroll with you when you use these methods to change the playback location. This is a convenient way to move around your manuscript.

Scrolling during playback

Mosaic can scroll galley views and page view windows during playback so that you can always see what is currently playing. To do so, select Auto-scroll in the Controls window mini-menu so that the menu item is checked. Doing so causes the top-most window to scroll during playback. You can switch windows during playback if you like. With Auto-scroll enabled, the top-most view will always scroll to the current counter location in the Controls window.

☛ Please note! In some cases, such as when you are working with a large score, scrolling may become somewhat slow. If so, try checking the "Scroll to counter" option in the Controls window mini-menu instead. This causes the window to scroll to the current location when you stop playback rather than scrolling continuously during playback.

If you have problems with playback...

Here are some common problems with playback and some things to try:

■ If you don't hear anything, open the Voices window and make sure that the play-enable buttons for each voice are black (enabled). (If you have several files open, be sure you are looking at the correct Voices window.) Also make sure that the MIDI channel assignment is the same channel as the receive channel on the synthesizer or sound module. Make sure there is a MIDI cable going from the MIDI OUT on your interface to the MIDI IN on the synthesizer or sound module. Make sure the sound module is turned on and that the volume is turned up.

- If you hear the wrong kind of sound (e.g. flute instead of clarinet), check which patch is currently selected in the Voices window Patch column.

- If all of your voices are playing the same instrument, but you want each one to play a different instrument, check your MIDI instrument to make sure that it is *multi-timbral,* (one that can play a different sound on each MIDI channel simultaneously). Once you have verified that it is multi-timbral, you may need to set it to "multi" mode.

- If it doesn't play back at the correct tempo, try inserting a metronome marking. If a metronome marking already exists, try deleting and re-inserting it.

- If you hear a bizarre sort of flanging effect (sounds like doubled notes) on each note, you may have recorded doubled notes, or you may have a MIDI feedback loop. Either uncheck the Patch thru command in the Controls window mini-menu, or disable the MIDI echo feature of your synthesizer.

RECORDING IN REAL TIME

Mosaic can record what you play in real time. You press record, play along with a metronome click produced by Mosaic through the Macintosh's internal speaker, and then press stop. Mosaic displays what you recorded as notation using an intelligent rhythm analyzing algorithm.

If you prefer, Mosaic can automatically split left and right hand playing into two staves. To do so, set up a piano grand staff (two staves, with treble and bass clef). Then check the "Hand Splitting" option in the Controls window mini-menu. When the command is checked, recorded MIDI data is split automatically between the two staves. It does not matter which staff you place the insertion cursor in before recording. Note, however, that hand splitting will only occur on a treble clef staff that has a bass clef staff below it, or a bass clef staff that has a treble clef above it.

To record in real-time:

1 Place the insertion cursor on the staff you want to record on.

If you want Mosaic to automatically split the left and right hand parts onto a treble and bass clef staff pair, place the insertion cursor on either one of the two staves.

2 Check or uncheck the Hand-splitting option as desired in the Controls window mini-menu.

If you don't want to split the music between a bass and treble clef staff, uncheck this option. If you do, check it.

3 (This step is optional) Set the tempo at which you would like to record by inserting a metronome marking where you will begin recording.

You can delete the metronome marking after you are done. Slowing things down helps to produce a more accurate transcription. For information about how to insert a metronome marking, see "Inserting a Metronome Marking" on page 15-11.

4 Open the Controls window by choosing it from the Windows menu and click the "Clik" button to highlight it.

If you would like to check out various settings for the click, double-click the button to open the Click Options dialog.

5 If you would like a countoff, click the Countoff button (the button that says "2 bars") to highlight it.

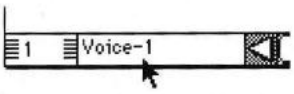
If you would like to change the number of countoff measures, double-click the Countoff button, type the desired number of measures, and click OK.

6 If you would like Mosaic to wait for you before you begin your countoff and recording, click the Wait button to highlight it.

7 Indicate where you would like to begin recording by clicking any staff at the desired measure and beat location.

For more information about moving the insertion cursor, see "Moving the insertion cursor" on page 55.

8 Determine the voice that you would like to record into by pressing command-up arrow or command-down arrow to select the desired voice.



As you do so, watch the current voice name in the voice indicator box at the lower left hand corner of the view window. Alternatively, you can click the current voice name, type the desired voice name, and press return. See "Switching the insertion cursor to a different voice or staff" on page 54. If you are splitting what you play into a piano staff, place the insertion cursor in the voice on the top staff.

9 Get ready to record.

10 Press the Record button in the transport controls to begin recording.

If you have the Wait button enabled, it will flash to indicate that it is waiting for you to trigger the beginning of recording. When you are ready, play any note on your MIDI controller to do so.

11 Listen to the countoff if there is one and play in time with the metronome click.

Try to play as accurately in rhythm as you can. This will ensure a more accurate transcription.

12 When you are done recording, press the Stop button in the transport controls.

Mosaic may take a moment to process the MIDI data you have just recorded. If you made a mistake, you can play back what you recorded to find it. You can then stop and fix the mistake. Or you can undo the recording and try again.

Using the controls from the Macintosh Keyboard

All of the buttons in the Controls window are mapped to keys on the Macintosh keyboard as shown in Figure 34-5 on page 207.

These key bindings become active when the Controls window is open. When you close it, the key bindings revert to the standard ones. See "Appendix C: The Mosaic Keyboard" for more information.

☛ Please note! When you have the Controls window open, the 1 and 2 keys on the keypad do not select a whole and half note duration. Instead, they trigger Rewind and Pause. If you would like to use these keys to select the whole and half note durations, close the Controls window. (Likewise, the space bar starts and stops playback rather than entering a rest. And the decimal key on the Macintosh keypad edits the counter instead of selecting a dotted duration.) If you want to reassign these key bindings, see Appendix D, "Customizing Mosaic's Key Bindings".

Changing the number of countoff measures

To change the number of countoff measures:

1 Double-click the Countoff button in the Controls window.

The countoff button is the one that says "2 bars". A dialog box appears.

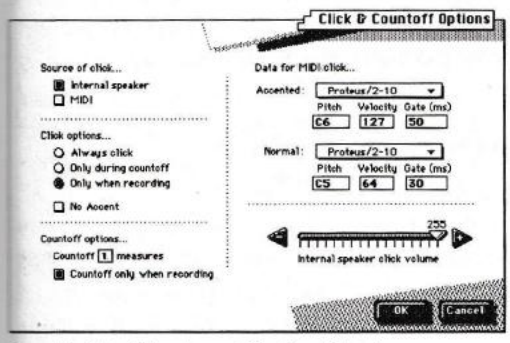


Figure 34-6: the click and countoff options dialog box.

2 Type in the number of countoff measures that you would like under the Countoff options section.

3 If you would like Mosaic to only count off when you are recording, check the "Count off only when recording" check box.

4 Click OK or press return to confirm your choice.

Changing the click settings

Normally, Mosaic emits the click sound from the Macintosh internal speaker. If you want, you can set up Mosaic so that it sends the click as a MIDI note to a device, such as a drum machine or the drum kit on your MIDI synthesizer. You can also choose when to hear the click.

To set up the MIDI click:

1 Double-click the "Clik" button in the Controls window.

The Click & Countoff Options dialog box appears as shown in Figure 34-6 on page 207.

2 Check the "Source of click" and other options as desired.

These options are discussed in detail in the following sections.

3 Enter the MIDI playback parameters for the accented click and the normal click.

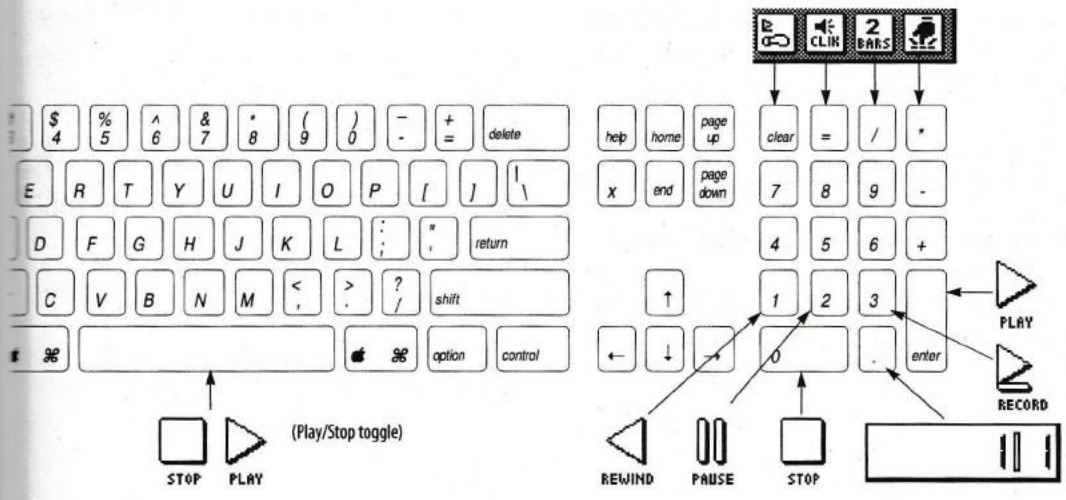


Figure 34-5: Key bindings for Mosaic's Controls window.

Notice that you can make them be the same note or different notes. For example, you might want a cow bell sound on the down beats and a side stick sound for the rest of the beats.

4 Click OK.

Source of Click

Source of click specifies how the click is generated. Select one or both options.

The **Internal speaker** option produces a click sound from the computer's internal speaker. This option is greyed out if MIDI Manager is currently installed in the System on your computer.

☛ Please note: the internal speaker click may not work on all machines. (The check box option may even be greyed out in the dialog box.) If so, use the MIDI click described below instead.

The MIDI option will send a MIDI note for every click. For this option, you must set up a synth or drum machine to receive these notes and play a 'click' sound of your choosing. For example, a drum machine could play rim shots, or a synthesizer could play short beeps.

Click Preferences

No accent removes the accent from the first click in each measure. This option affects both the internal speaker click and the MIDI click.

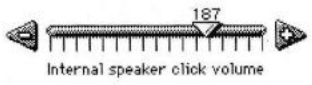
Always click makes the click audible whenever Mosaic is counting off, playing or recording.

Only during countoff makes the click audible only during countoff measures, which are specified and enabled with the *Countoff* button in the Controls window. When playback or recording begins, the click will fall silent.

Only when recording makes the click audible only when Mosaic is in record mode. If the Countoff button is enabled, Mosaic will also click during the countoff in this mode.

Internal Speaker Click Volume

The *Internal speaker click volume* slider controls the volume of the Macintosh speaker click. To increase the click volume, drag the slider to the right; to reduce volume, drag to the left. Or, press the + or - buttons at each end of the slider.



Mosaic's click volume is not affected by the volume slider in the Control Panel. This allows you to attenuate (or turn off) the warning 'beep' sound and turn up the click.

Data for MIDI Click

These options define what notes are played if the MIDI option is selected. The Accented note is played on the first beat of each measure; the Normal note is played at all other times. Each note has four parameters:

The device pop-up menu specifies the MIDI device that will play the click sound.

Pitch is the pitch of the note, expressed as a scale letter (A-G) (use the number sign '#' to represent a sharp, or a small letter 'b' to represent a flat) and an octave number. For example, C3 means middle C.

Velocity is the attack (on) velocity, expressed as a number from 0-127.

Gate specifies the length of the note in milliseconds (thousandths of a second).

CHAPTER 35 Using FreeMIDI Setup

This chapter explains all the major functions of the FreeMIDI Setup application.

FreeMIDI Setup is the application that you use to edit your FreeMIDI configuration or FreeMIDI System Preferences. It is the application that is launched or switched to when the *Edit FreeMIDI Configuration...* command is chosen in FreeMIDI-compatible applications such as Performer, Mosaic, or Unisyn. In FreeMIDI Setup, you can edit the properties and connections of devices as well as the various settings in the FreeMIDI System, such as Inter-application MIDI and Monitor Patch Changes. You can view the current patch list for a device in a pop-up menu. You can control the Transport functions of a FreeMIDI sequencer, such as Performer. You can also use FreeMIDI Setup to test your studio connections.

The Current FreeMIDI Configuration

There is no need to make a FreeMIDI configuration "current". Whichever configuration is visible in the FreeMIDI Configuration window is the current configuration that all FreeMIDI applications will use. Whenever you launch FreeMIDI Setup to view or edit your FreeMIDI configuration, the configuration document with which you were last working is opened automatically. If you do not launch FreeMIDI Setup, other FreeMIDI applications will be using the FreeMIDI configuration that was last opened in FreeMIDI setup.

If you open a new or existing configuration, it will immediately become the current configuration that all FreeMIDI applications will use.

See "Working with FreeMIDI Configurations" on page 220 for information on working with multiple FreeMIDI configurations.

FREEMIDI PREFERENCES

The FreeMIDI Preferences dialog box is where you tell FreeMIDI which serial ports you will be using for MIDI, whether you want to use Inter-application MIDI, whether FreeMIDI should monitor patch changes and whether FreeMIDI should allow non-FreeMIDI applications to use the serial ports for MIDI. These options are explained more fully below.

To set FreeMIDI Preferences:

1 Choose *FreeMIDI Preferences...* from the File menu.

The FreeMIDI Preferences dialog box appears.

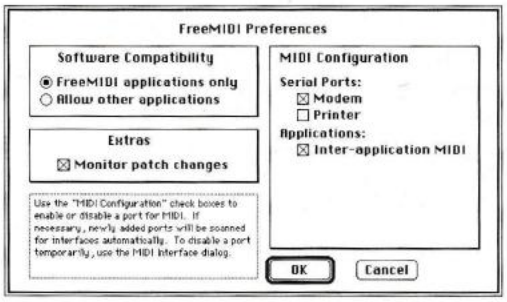


Figure 35-1: FreeMIDI Preferences Dialog Box

2 Choose the settings you desire and click OK or click Cancel to leave the FreeMIDI Preferences unchanged.

Read the following sections for information on the various options in this dialog box.

Software Compatibility

If you wish to use MIDI applications that do not support FreeMIDI at the same time as FreeMIDI-compatible applications, click *Allow other applications* in the Software Compatibility section. This allows non-FreeMIDI applications to have access to the Macintosh serial ports while FreeMIDI applications are running. When the *Allow other applications* option is set, FreeMIDI-compatible applications cannot play MIDI in the background.

If you will only be using FreeMIDI-compatible MIDI applications, click *FreeMIDI applications* only. This allows FreeMIDI applications to play MIDI in the background.

MIDI Configuration

Click the check box for each serial port (modem and printer) to which you have a MIDI interface connected. Be sure that you connect and power up all the MIDI interfaces that you will be using, because FreeMIDI has the ability to automatically find most of your MIDI gear.

Inter-application MIDI Communication

If you wish to be able to send MIDI data between FreeMIDI-compatible applications, click the Inter-application MIDI check box. This option uses up some Central Processing Unit (CPU) overhead, so leave this option turned off unless you know you will be using it.

Extras

If you wish to have any patch changes that are sent by FreeMIDI updated in real-time for all your FreeMIDI applications, click the Monitor Patch Changes check box. For example, if you choose to monitor patch changes, the patch column in Performer's Tracks window always correctly displays the last patch change sent to each device. This option uses up some Central Processing Unit (CPU) overhead, so if you find your Mac is working too slowly when using FreeMIDI applications, try leaving this option turned off.

AppleTalk and the Printer Port

If AppleTalk is enabled on the printer port and you select the printer port under MIDI Configuration and OK the FreeMIDI Preferences dialog box, a warning alert box appears, which asks if you would like to claim the printer port for MIDI.

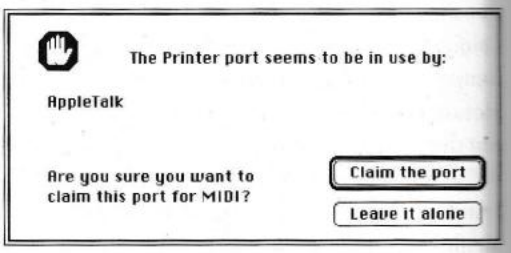


Figure 35-2: AppleTalk Warning Alert

If you are using AppleTalk for network communications or for an AppleTalk printer, you should click *Leave it alone* and re-think your MIDI studio setup. Otherwise, click *Claim the port* and FreeMIDI will be able to use the printer port for MIDI.

If you clicked *Claim the port*, you should disable AppleTalk in the Chooser when you are through configuring FreeMIDI, in order to avoid seeing this warning alert again.

If you are using AppleTalk for an Ethernet network and your Ethernet connection is made via NuBus or SCSI or some other bus that does not utilize the printer port, FreeMIDI should not ask about disabling AppleTalk and network communications should not be interrupted.

FAX/Modem and Networking Software Compatibility

Some FAX/Modem and networking software can cause conflicts with other software that needs to use the serial ports such as FreeMIDI. If you have

such software and it needs to be active while you are working with FreeMIDI applications, you may need to set the *Allow non-FreeMIDI applications* option in the FreeMIDI Preferences dialog. Even this may not work. You may need to disable such software while using FreeMIDI, if it continues to cause conflicts. It may take some experimentation to find out what settings work best. For more information, see "Software Compatibility" on page 210.

QUICK SETUP

Use the *Quick Setup...* command to add and delete devices from your FreeMIDI configuration. This command is especially good to use when you need to add or delete more than one device from your configuration. Quick Setup can also shorten the process of connecting devices to interfaces, since the connections can be specified before the devices appear in the FreeMIDI Configuration window and then automatically appear when the setup is completed.

Auto Config

The Quick Setup dialog box contains an *Auto Config...* push button which opens the Auto Config dialog box. Auto Config can automatically find many of the MIDI devices in your MIDI studio. See "Configuring Your studio automatically" on page 19 of the Mosaic *Getting Started* book for information on using Auto Config to configure FreeMIDI for your studio.

Using Quick Setup to Add FreeMIDI Devices

To use Quick Setup to add devices:

1 Choose *Quick Setup...* from the Configuration menu.

The Quick Setup dialog box appears.

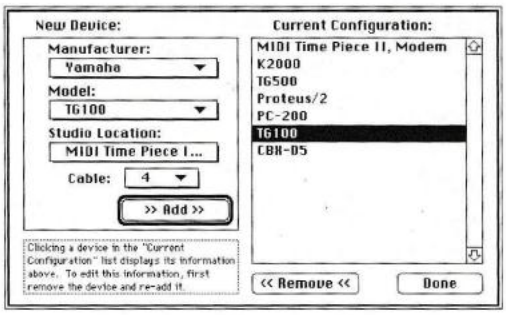


Figure 35-3: Quick Setup Dialog Box

This dialog box contains a list of all the MIDI devices that are contained in your current FreeMIDI configuration on the right side under the label *Current Configuration*.

2 Select the correct manufacturer, model, studio location and cable (if applicable) from the pop-up menus on the left and then click *Add*.

If the pop-up menus do not contain a description of a particular device, choose *Other* and click *Add*. We will see how you can re-name and re-define these devices later in this manual. For now they will be called by the default name *Device-1* for the first such device, *Device-2* for the next and so on. If you accidentally add a device to the list that you do not want to appear in your studio configuration, select its name from the list and click *Remove*.

3 When you have added all the devices to the list that you wish to add to your studio configuration, click *Done*.

The FreeMIDI Configuration window will appear containing all of the MIDI devices defined in the Quick Setup dialog box and their connections.

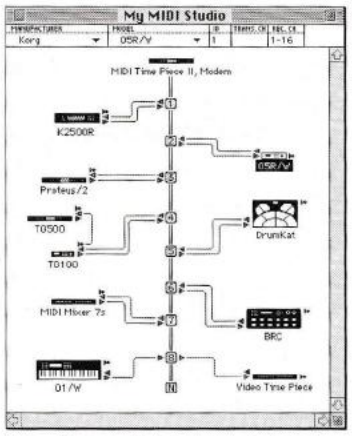


Figure 35-4: FreeMIDI Configuration Window

Using Quick Setup to Remove FreeMIDI Devices

To use Quick Setup to remove devices:

1 Choose *Quick Setup...* from the Configuration menu.

The Quick Setup dialog box appears.

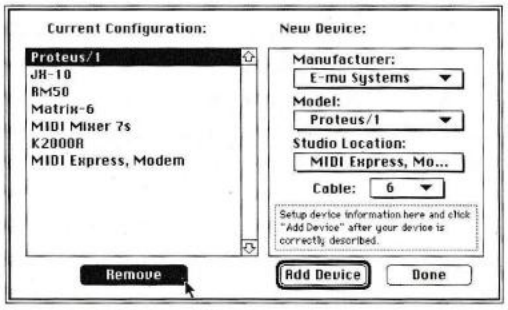


Figure 35-5: Quick Setup Dialog Box

2 Select the device or devices you wish to remove from the *Current Configuration:* list on the left side and click *Remove.*

The selected devices will disappear from the list.

3 When you have finished removing devices, click *Done* to close the Quick Setup dialog box.

The FreeMIDI Configuration window will appear containing all of the MIDI devices defined in the Quick Setup dialog box and their connections, minus the devices which were removed.

THE FREEMIDI CONFIGURATION WINDOW

This window is where you edit your FreeMIDI Configuration. It is the window that will appear when you choose the *Edit FreeMIDI Configuration...* command in other FreeMIDI applications such as Performer, Mosaic, and Unisyn.

This window contains a graphical representation of your MIDI studio. It contains MIDI interfaces, FreeMIDI devices, interface-to-device connections and an Info Bar.

Use the title bar of the window to move it as with any standard Macintosh window. Use the horizontal and vertical scroll bars to view portions of the window not currently visible as with any standard Mac window. Use the Zoom button to toggle the window between full size and its current state. Use the grow handle to change the size or shape of the window.

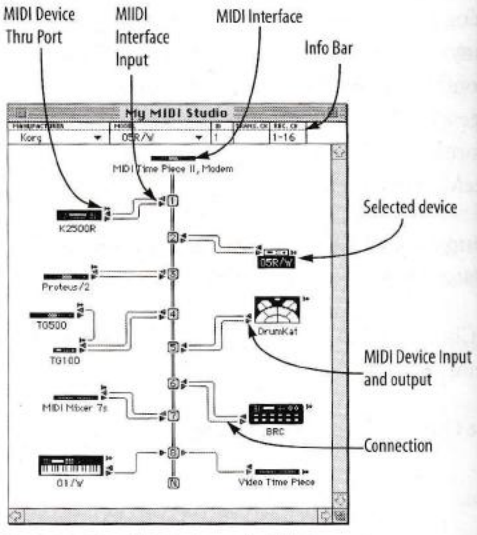


Figure 35-6: FreeMIDI Configuration Window

In the FreeMIDI Configuration window, you can view, edit, and rearrange your FreeMIDI configuration in most any way that you like.

The FreeMIDI Configuration window shows your current configuration. You can make any other previously saved configuration the current configuration simply by opening it.

Use the Quick Setup command along with the Auto Config command to quickly set up a configuration that matches your MIDI studio. For more information, see "Configuring Your studio automatically" on page 19 of the Mosaic *Getting Started* book.

Editing Device Info in the FreeMIDI Configuration Window

You can edit some of the properties of devices that appear in your FreeMIDI configuration directly in the FreeMIDI Configuration window. The properties that you can change are the manufacturer name, model name, device ID, device name, and MIDI transmit and receive channels. See "Editing FreeMIDI Devices" on page 215 in this chapter for information on editing *all* the properties of FreeMIDI devices.

To quickly change the manufacturer, model, device ID or MIDI channel for a device:

1 Select the device you wish to edit by clicking its icon.

It's device info appears in the info bar near the top of the window.

MANUFACTURER	MODEL	ID	TRANS. CH	REC. CH
Kurzweil	K2000	0	1-16	1-16

Figure 35-7: FreeMIDI Configuration window Info Bar

2 Select a new manufacturer or model name from the appropriate pop-up menus.

Unless you want to leave the model name blank, you will need to change the model name for a device if you change its manufacturer.

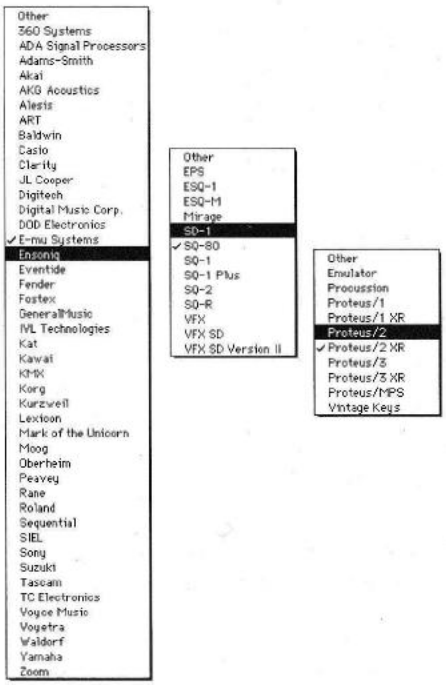


Figure 35-8: Pop-up menus in Info Bar

3 Enter new device ID or MIDI transmit and receive channels numbers in the appropriate text entry box(es).

If you would like to enter consecutive MIDI channel numbers, enter the numbers like this: 1-8. If you would like to enter non-consecutive numbers, enter the numbers like this: 1,3,5,7,10.

Editing FreeMIDI Configurations

You can add, delete, edit, rename, duplicate, connect, disconnect, and rearrange FreeMIDI devices in the FreeMIDI Configuration window. Use the techniques below to add and remove devices from your FreeMIDI configuration if you only need to add or remove one device at a time. Otherwise, it is usually easier to use the Quick

Setup command to add or remove multiple devices. See "Using Quick Setup to Add FreeMIDI Devices" on page 211 in this chapter for more information on using the Quick Setup command.

See "Working with FreeMIDI Configurations" on page 220 in this chapter for information on working with multiple FreeMIDI configurations.

Adding FreeMIDI Devices

To add a single FreeMIDI device to your configuration:

1 Choose *Create Device...* from the Configuration menu or type command-K on your Mac keyboard.

The FreeMIDI Device Specification dialog box appears. If you do not wish to add a device at this time, click *Cancel* and the FreeMIDI Configuration window reappears.

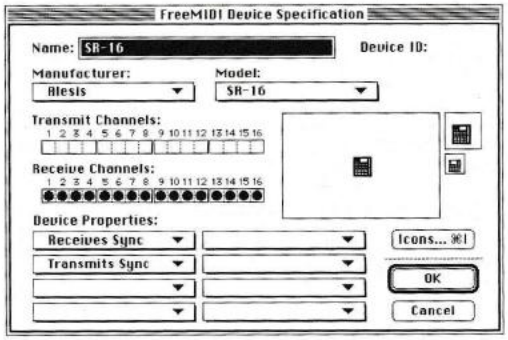


Figure 35-9: FreeMIDI Device Specification Dialog Box

2 Select a manufacturer and model from the pop-up menus.

Steps 2-7 below are optional. FreeMIDI ships with default settings for each device in it's model list. These default settings appear when you select a specific model from the model pop-up menu. If you would like to change any of the settings such as the device name, ID, properties, MIDI channels or icon, proceed to steps 2-7 below. Otherwise, click OK and the new device will appear at the top of FreeMIDI Configuration window.

3 Enter a name for the device by typing the name into the name text box.

4 Set a device ID number by entering a new number in the Device ID text box.

5 Select up to eight different Device Properties for the device by selecting properties from the eight pop-up menus.

For more information, see "Device Properties" on page 224.

6 Set transmit and receive channels for the device by clicking the appropriate box(es) below the MIDI channel numbers that are displayed.

It is very important to set the MIDI channel information correctly, since this controls the amount of channels that appear for the device in other FreeMIDI applications such as Performer.

7 Select an icon to represent the device in the FreeMIDI Configuration window.

Click *Icons...*and scroll until the icon that you wish to use is displayed in the middle, bordered field and click OK. For information on entering your own icons into FreeMIDI, see "Editing FreeMIDI Device Files" on page 233.

Removing FreeMIDI Devices

To remove FreeMIDI devices from your configuration:

1 Select the device you wish to remove by clicking its icon. Shift-click device icons to select more than one device.

2 Type backspace or delete on your Mac keyboard or choose *Cut* or *Clear* from the Edit menu or type command-X or command-B on your Mac keyboard.

Any of these commands removes the selected devices.

3 If you remove the wrong devices, choose *Undo* from the Edit menu and try again.

Editing FreeMIDI Devices

Once FreeMIDI devices are defined and appear in your FreeMIDI configuration, you can change any of their properties with the FreeMIDI Device Specification dialog box.

To edit a FreeMIDI device:

1 Double-click the device you wish to edit. Alternately, select the device and choose *Edit Device...* from the Configuration menu or type command-E on your Mac keyboard.

The FreeMIDI Device Specification dialog box appears. If you do not wish to edit the device at this time, click *Cancel* and the FreeMIDI Configuration window reappears.

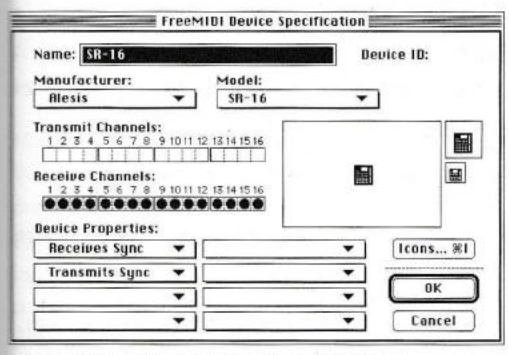


Figure 35-10: FreeMIDI Device Specification Dialog Box.

2 If you select more than one device in the FreeMIDI Configuration window, the *Edit Device...* menu item becomes grayed-out (disabled) since you can only edit the properties of one FreeMIDI device at a time.

3 Make the changes you desire and click *OK* or click *Cancel* to cancel the edit operation.

See "Adding FreeMIDI Devices" on page 214 in this chapter for information on the various properties you can edit in this dialog box.

Naming FreeMIDI Devices

When devices are added to your FreeMIDI configuration using Quick Setup and Auto Config, they are given default names that correspond to their model names. You can easily rename these devices if you wish. See "Editing FreeMIDI Devices" on page 215 in this chapter for information on one method of changing the name of any existing FreeMIDI device with the FreeMIDI Device Specification dialog box.

An even easier way to change a FreeMIDI device name follows:

1 Select the device by clicking its icon.

You can skip step 2 below by clicking the device's name directly. The mouse cursor will change to the text insertion I-beam to indicate that it is in text entry mode.

2 Type the *Return* or *Enter* key on your Mac keyboard.

3 Enter a new name for the device.

4 Type the *Return* or *Enter* key on your Mac keyboard to confirm your choice. Alternately, you can click any where in a blank part of the FreeMIDI Configuration window to confirm the new name.

5 If you enter the wrong name, choose *Undo Rename* from the Edit menu and try again.

☛ For users familiar with the System 7, FreeMIDI's naming convention is identical to the Finder's.

Duplicating FreeMIDI Devices

You can make copies of FreeMIDI devices in two ways. Using the *Copy* or *Cut* command along with the *Paste* command, you can make copies of devices to paste into other FreeMIDI configurations. Using the *Duplicate* command, you can make copies of devices in the current FreeMIDI configuration with one command.

To copy or cut and then paste devices:

1 Select the device you wish to copy or cut by clicking its icon. Shift-click device icons to select more than one device.

2 Choose *Copy* or *Cut* from the Edit menu. Alternately, you can type command-C for Copy and command-X for Cut on your Mac keyboard.

Copy makes a copy of the selected items and places it on the clipboard for pasting. *Cut* makes a copy of the selected items and places it on the clipboard for pasting and removes the original selection.

3 (Optional) If you wish to paste the devices into a different FreeMIDI configuration, close the current configuration and open a new or existing configuration.

For info on opening new and existing configurations see "Opening Existing FreeMIDI Configurations" on page 221 and "Creating a New FreeMIDI Configuration" on page 220 in this chapter.

4 Choose *Paste* from the Edit menu. Alternately, you can type command-V on your Mac keyboard.

The pasted devices will appear in some blank portion of the FreeMIDI Configuration window.

To duplicate devices:

1 Select the device you wish to duplicate by clicking its icon. Shift-click device icons to select more than one device.

2 Choose *Duplicate* from the Edit menu. Alternately, you can type command-D on your Mac keyboard.

The duplicated devices will appear in some blank portion of the FreeMIDI Configuration window.

Connecting Devices to Interfaces

Once you have added a FreeMIDI device to your FreeMIDI configuration, you will need to connect its inputs and outputs to an interface in your configuration. FreeMIDI will not be able to send or receive MIDI to or from the device unless it is connected to an interface. FreeMIDI does not require that the input and output cable of a device be the same number, but, in most cases, setting up your studio this way may be more organized and simpler to understand.

☛ Outputs are represented by small triangles that are located on the right side of devices and interface ports. Inputs are represented by small triangles that are located on the left side of devices and interface ports.

To connect a device output to an interface:

1 Drag a "patch cord" from the output of a device to an input on an interface.

When you release the mouse, the connection will appear. If you have a multi-cable interface such as the MTP II or MIDI Express, be sure to connect the device output to the input to which the device is physically connected. If you are using both the modem and printer serial ports, be sure to connect

the device output to the input on the interface on the serial port to which the device is physically connected.

2 Alternately, you can drag the "patch cord" from the input of an interface to an output on the device.

3 If you connect the wrong ports for a device, choose *Undo Drag* from the Edit menu and try again.

To connect a device input to an interface:

1 Drag a "patch cord" from the input of a device to an output on an interface.

When you release the mouse the connection will appear. If you have a multi-cable interface such as the MTP II or MIDI Express, be sure to connect the device output to the input to which the device is physically connected. If you are using both the modem and printer serial ports, be sure to connect the device output to the input on the interface on the serial port to which the device is physically connected.

2 Alternately, you can drag the "patch cord" from the output of an interface to an input on the device.

3 If you connect the wrong ports for a device, choose *Undo Drag* from the Edit menu and try again.

Making MIDI Thru Connections

When more than one MIDI device shares a single output port from a MIDI interface, you need to connect the MIDI Thru port of the device to the input of the other device. This mirrors the physical connection that you should have between the devices.

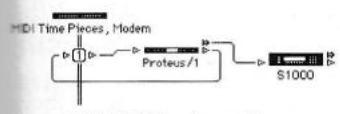


Figure 35-11: MIIDI Thru Connection

Making Multiple MIDI Input Connections

FreeMIDI Setup allows you to connect more than one MIDI output from a device to a single MIDI input on an interface. When you make such a connection, you are telling FreeMIDI that both devices' MIDI outputs are connected to a single MIDI input on an interface. Without some type of MIDI merger, this type of connection is not possible.

Connecting Devices to other Devices

FreeMIDI Setup allows one connection per port (input output, or thru) on each device. You cannot connect devices to each other except from MIDI Thru to MIDI In of a separate device. If you would like to make such connections, use the Cable Routing (on MIDI Time Piece and MIDI Express interfaces) or similar features in your MIDI interface or MIDI patch bay/merger gear.

Removing Device Connections

Once you have made connections between devices and interfaces, you can remove the connections to make different connections if you physically change the connections in your MIDI studio.

To remove FreeMIDI device connections:

1 Click at the intersection of the Device port and the patch cord and drag the connection away from the device and then release the mouse.

The connection is broken.

Figure 35-12: Breaking a Connection

An alternate way to remove FreeMIDI device connections follows:

1 Select a connection by clicking it. Shift-click connections to make multiple selections simultaneously.

When a connection is selected, it appears as a thicker, heavier line than an unselected connection. To deselect a connection, click somewhere in a blank area of the FreeMIDI Configuration window.

Figure 35-13: Selecting a Connection

2 Type backspace or delete on your Mac keyboard or choose *Cut* or *Copy* from the Edit menu or type command-X or command-B on your Mac keyboard.

Any of these commands will remove the selected connections.

3 If you remove the wrong connections, choose *Undo* from the Edit menu and try again.

Arranging the FreeMIDI Configuration window

You can arrange the FreeMIDI Configuration window any way you like. We suggest that you drag device icons so that they appear as they do in your studio. For instance, you can arrange all the modules, which are in a rack to the left of your Mac, to the left side of the window and all the modules, which are in a rack to the right of your Mac, to the right side of the window. You can drag the patch cords, which connect the devices to the interfaces, up or down so that you can view the connections clearly. You can drag MIDI ports in a multi-cable interface, such as the MTP, MTP II or MIDI Express, up or down to create more or less space between them. You can delete input or output cables, which are not part of your studio setup, by clicking the patch cord to select it and typing the backspace or delete key on your Mac keyboard. You can also make and break connections by just dragging the ends of the patch cords. You can use the different options in the Views menu to change the size of the icons and to view input and outputs separately or together.

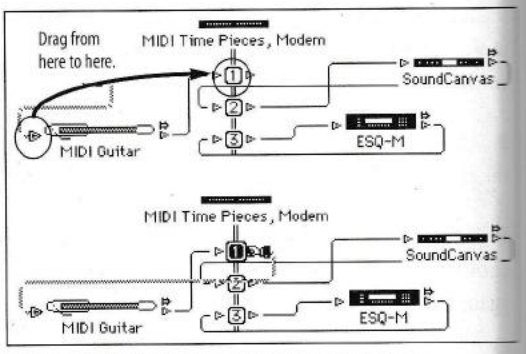


Figure 35-14: Connecting a device to an interface output.

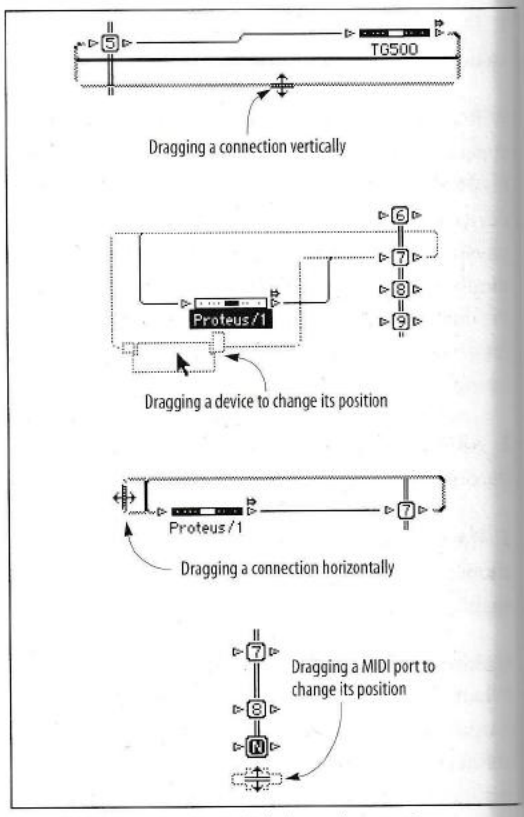


Figure 35-15: Arranging FreeMIDI devices and connections.

FreeMIDI Interfaces

Interfaces are an important part of the FreeMIDI Configuration. They appear automatically when FreeMIDI scans the serial ports for MIDI interfaces. This happens the first time you set the

FreeMIDI System Preferences to access one or both serial ports for MIDI. You can use the Re-Scan Serial Ports for Interfaces??? command to have FreeMIDI check for MIDI interfaces that you may have installed or powered on after originally setting the Preferences file.

Only the names of interfaces can be changed. All other parameters cannot be edited.

Selecting FreeMIDI Interfaces

To select a FreeMIDI interface in the FreeMIDI Configuration window, click its icon. To select more than one FreeMIDI interface, shift-click each icon. To deselect a previously selected FreeMIDI interface, shift-click its icon. To deselect all selected FreeMIDI interfaces, click in a blank area of the FreeMIDI Configuration window.

Moving FreeMIDI Interfaces

To move a FreeMIDI interface, drag its icon to the desired position. Choose *Undo Drag* command from the Edit menu to return the device icon to its original position.

You can drag the input/output ports of a MIDI interface up and down to make more room between each port by dragging the port number icon that you wish to move. Choose *Undo Drag* command from the Edit menu to return the port number icon to its original position.

Figure 35-16: Moving interface ports vertically

Editing FreeMIDI Interface Names

After a FreeMIDI interface appears in the FreeMIDI Configuration window, you can change its name. To do so:

1 Select the FreeMIDI interface you wish to edit by clicking its icon.

It's info appears in the info bar. If you clicked the interface icon's name, the mouse cursor changes to a text insertion I-beam and you can enter a new name by just typing. If you did not click the icon name, you can still edit the name by typing the *Return* key on your Mac keyboard and the name will pop-up for editing and the mouse cursor changes to a text insertion I-beam when it is over the icon name. If you are familiar with System 7, this naming convention works identically to the Finder in System 7.

Working with Off-Line Interfaces

You can create and work with MIDI interfaces which are not currently connected or powered-on (off-line), using the *Choose Interface* feature. To use this feature:

1 Turn off or disconnect all your MIDI interfaces.

2 Choose *FreeMIDI Prefences...* from the File menu.

The FreeMIDI Preferences dialog box appears. The FreeMIDI Preferences dialog box is where you tell FreeMIDI which serial ports will be used for MIDI (among other things). See "FreeMIDI Preferences" on page 209 in this chapter for more information on the options in the FreeMIDI Preferences dialog box.

3 Select the serial ports to which the off-line interfaces will be connected when they come on-line and click *OK* to confirm your choice or click *Cancel* to leave the FreeMIDI Preferences unchanged.

FreeMIDI searches the selected serial ports for MIDI interfaces, but since the interfaces are still off-line, no interfaces are found on the selected ports and this dialog box appears.

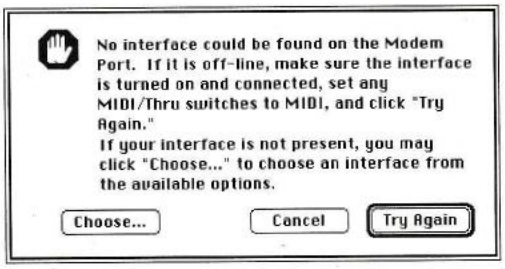


Figure 35-17: No interfaces Found dialog box

4 Click *Choose...* and the Choose Interface dialog box appears.

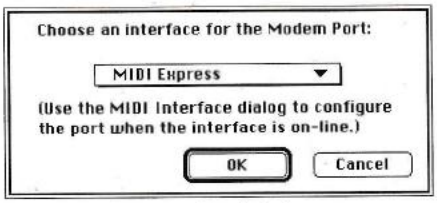


Figure 35-18: Choose interface dialog box

5 Choose the interface you wish to add to your FreeMIDI configuration from the pop-up menu of interface choices and click *OK* to confirm your choice or click *Cancel* to cancel the operation.

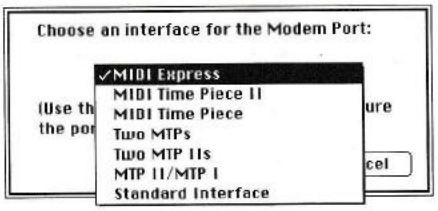


Figure 35-19: Choose interface pop-up menu.

The interface you choose appears in the FreeMIDI Configuration window. If FreeMIDI devices were already in the window, they will appear unconnected to this new interface. You can proceed to add devices to the configuration and connect devices to the interface in the usual manner. For more information, see "Quick Setup" on page 211.

WORKING WITH FREEMIDI CONFIGURATIONS

We call the documents created by the FreeMIDI Setup application "FreeMIDI configurations". When FreeMIDI Setup is open, the FreeMIDI Setup document that is currently open and whose FreeMIDI configuration is visible in the FreeMIDI Configuration window is the current configuration that all FreeMIDI applications use. Whenever you launch FreeMIDI Setup to view or edit your FreeMIDI configuration, the configuration document with which you were last working is opened automatically. If you do not launch FreeMIDI Setup, other FreeMIDI applications use the FreeMIDI configuration that was last opened in FreeMIDI Setup.

If you open a new or existing configuration, it will immediately become the current configuration that all FreeMIDI applications use.

Creating a New FreeMIDI Configuration

Although only one FreeMIDI configuration can be current or active at a time, you can create as many FreeMIDI configurations as you like. Once you have created a FreeMIDI configuration for your own MIDI studio, you might want to create a FreeMIDI configuration for another studio that you might be working at in the future or you might want to create several variations of your home studio for different situations.

To create a new FreeMIDI configuration:

1 If you have not done so already, open FreeMIDI Setup by double-clicking its icon in the Finder. Alternately, you can open FreeMIDI setup by choosing the *Edit FreeMIDI Configuration...* command in any other FreeMIDI application.

The FreeMIDI Configuration window opens and displays the current FreeMIDI configuration.

2 Choose *New* from the File menu or type command-N on your Mac keyboard.

If you have made changes to the current configuration and have not yet saved them, FreeMIDI Setup will ask if you would like to save these changes before the new configuration opens. Otherwise, an empty, new FreeMIDI Configuration window opens containing no devices or interfaces.

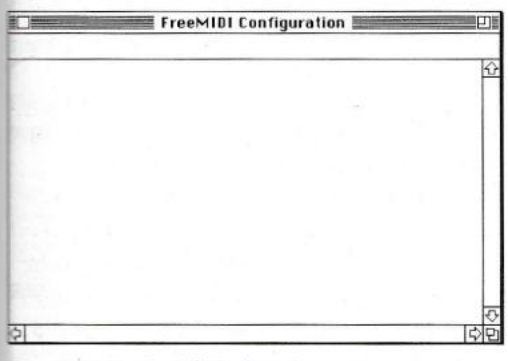


Figure 35-20: New FreeMIDI Configuration

3 Choose *FreeMIDI Preferences...* from the File menu.

The FreeMIDI Preferences dialog appears. This step is necessary in order to tell FreeMIDI which serial ports your new configuration uses for MIDI.

4 Set FreeMIDI Preferences the way that you like and click *OK* or click *Cancel* to leave the FreeMIDI Preferences settings unchanged.

FreeMIDI searches the serial ports you selected for MIDI interfaces. Interfaces that are found appear in the new FreeMIDI Configuration window. See "FreeMIDI Preferences" on page 209 in this chapter for information on the various options in this dialog box.

☛ If you are creating a FreeMIDI configuration in which you would like to place MIDI interfaces that are not currently connected (on-line), you will need to disconnect or power off any MIDI interfaces that *are* on-line and then use the Choose Interfaces feature to insert an off-line interface. For more information, see "Working with Off-Line Interfaces" on page 219.

5 Use Quick Setup or Auto Config to add and connect devices to the interface in this new FreeMIDI configuration. Alternately, you can add devices to the configuration indiviudally by choosing *Create Device...* from the Configuration menu.

For more information on adding and connecting devices in this new FreeMIDI configuration, see "Quick Setup" on page 211, "Auto Config" on page 211, and "Editing FreeMIDI Configurations" on page 213 in this chapter.

You now have a FreeMIDI configuration that can be used in the studio for which it was designed. See "Saving FreeMIDI Configurations" on page 222 for information on how to save this configuration to disk so that you can open it when you start work in the studio for which it was designed.

Opening Existing FreeMIDI Configurations

Once you have saved more than one FreeMIDI configuration to disk, you can open any existing configuration for use in a situation such as starting a project in another MIDI studio.

To open an existing configuration:

1 If you have not done so already, open FreeMIDI Setup by double-clicking its icon in the Finder. Alternately, you can open FreeMIDI setup by choosing the *Edit FreeMIDI Configuration...* command in any other FreeMIDI application.

The FreeMIDI Configuration window opens and displays the current FreeMIDI configuration.

2 Choose *Open* from the File menu. Alternately, you can type command-O on your Mac keyboard.

If you have made changes to the current configuration and have not yet saved them, FreeMIDI asks if you would like to save these changes before another configuration opens. Otherwise, a standard Macintosh File Open dialog box opens.

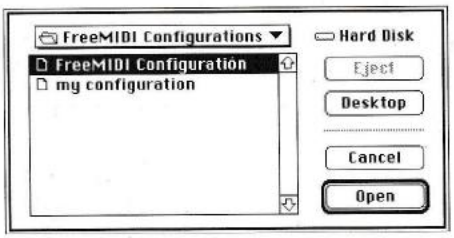


Figure 35-21: Macintosh File Open dialog box

3 Select the FreeMIDI configuration that you would like to open and click *Open* or click *Cancel* to leave the current FreeMIDI configuration open.

The selected configuration opens and you can proceed to use this configuration in your other FreeMIDI applications. Use the directory pop-up menu to navigate to a disk and folder in which the configuration you wish to open is located. See your Macintosh owner's manual for more information on saving files and navigating to disk and folders.

Saving FreeMIDI Configurations

You can save each FreeMIDI configuration that you create to disk so that you can recall them at a later date.

To save a FreeMIDI configuration:

1 Choose Save from the File menu. Alternately, you can type command-S on your Mac keyboard.

If the configuration has been saved before, it replaces the current version of the configuration. If there are no changes since the last time the configuration was saved, the Save menu item is disabled (grayed-out) in the File menu. If the configuration has never been saved before, a standard Macintosh File Save dialog box opens.

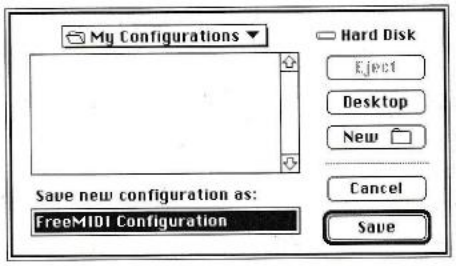


Figure 35-22: Macintosh File Save dialog box

2 Use the suggested name "FreeMIDI Configuration" or enter another name for your configuration if you like, and click *Save* or click *Cancel* to cancel the operation.

Use the the directory pop-up menu to navigate to a disk and folder in which you wish to save this configuration. If you like, you can use the New Folder button to create a new folder in which to save this configuration and others that you might create in the future. See your Macintosh owner's manual for more information on saving files and navigating to disk and folders.

The configuration is now safely saved and you can recall it at a later date.

POPUP PATCHLISTS

Librarian applications, such as Unisyn or PatchList Manager, which support FreeMIDI's patch lists, can be used to define patch lists for your FreeMIDI devices. You can view the patch lists assigned to FreeMIDI devices and send patch changes to their default channels directly in the FreeMIDI Setup application. For more information on how to define patch lists for a FreeMIDI device, consult your Librarian software's users manual. If you use the PatchList Manager, this information is in chapter 7, "Using PatchList Manager" (page 83) in the Mosaic *Getting Started* guide.

To view and send patch changes in the FreeMIDI Setup application:

1 Check to be sure that the Popup Patchlists menu item in the Configuration menu is enabled.

The Popup Patchlists command should have a check next to its name. If it does not, choose it to select it.

2 Press the mouse on a device in the FreeMIDI Configuration window and its current patchlist appears in pop-up menu.

Figure 35-29 below shows a portion of an E-Mu Proteus/3 pop up patch list.

0 Troubador	32 Temple Gong
1 Accordion	33 Med Sitars
2 Desert Dawn	34 Mbira
3 Blue Grass	35 Shakuhachi
4 Spirit Catch	36 Cimbalum
5 Neg Flute	37 Hybrid Winds
6 Koto	38 Baya Suvuk
7 East Indian	39 Peter's Pad
8 Percussion 1	40 Harp Tones
9 Waterphone	41 ParisMusette
10 Irish Harp	42 Nu Age
11 Shofars	43 Shamisen
12 Psaltery	44 Syn Kalimba
13 Fragrant Tar	45 Ocarina Solo
14 Didjeridu 1	46 Tamburas
15 Pan Flute	47 Dulcet Bow
16 Dulcimer	48 Udu Tones
17 Bagpipe	49 Jade Spring
18 Percussion 2	50 Hybrid Pluck
19 Hanoi Drone	51 Fsw->Bagpipe

Figure 35-23: Popup Patchlist

3 (Optional) If you want to send a patch change command to the device whose patch list you are viewing, choose the patch you want to send and release the mouse.

The patch change will be sent to the device on its default channel.

PATCHTHRU

The PatchThru command lets you send MIDI data from one FreeMIDI device to any selected FreeMIDI device while FreeMIDI Setup is the current application.

MIDI Preferences

Before using PatchThru, be sure to set the MIDI Preferences the way you need them.

To do so:

1 Choose *MIDI Preferences...* from the MIDI menu.

The MIDI Preferences dialog box appears.

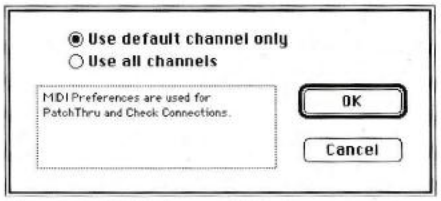


Figure 35-24: MIDI Preferences Dialog Box

2 Select one of the two options available.

The *Use default channel only* option is the default setting. With this setting PatchThru sends all incoming MIDI data to the selected device on the first available MIDI receive channel for that device. The *Use all channels* option will cause PatchThru to send all incoming MIDI data to the selected device on all of the selected device's MIDI receive channels at once. This option is not quite as useful as the first option.

3 Click *OK* to confirm your choice or *Cancel* to leave the MIDI Preferences unchanged.

Using PatchThru

PatchThru is a checkable menu item. This means that its state (on or off) is toggled each time you choose it from the menu. When there is a check next to the PatchThru menu item in the MIDI menu, PatchThru is enabled.

To use PatchThru:

1 Check to be sure that the PatchThru menu item in the MIDI menu is enabled.

The PatchThru command should have a check next to its name. If it does not, choose it to select it. You can also use the Mac keyboard shortcut to toggle the state of PatchThru by typing command-T.

2 Select a device and play notes on your MIDI controller keyboard.

You should hear the notes being played coming from the device that is selected.

DEVICE PROPERTIES

Every FreeMIDI device can be assigned up to eight different device properties. FreeMIDI applications can use these device properties in any way that they require. Here are two examples of the use of device properties:

- A FreeMIDI application which knows about the General MIDI specification could check FreeMIDI devices for the General MIDI device property. If the application found this property assigned to a certain device, it could then adjust itself to display and send the General MIDI patch changes only to this device, without having to know anything else about the device (such as the device model name or patch list).

- A FreeMIDI application that needs to synchronize its timing to a certain device could check for the Transmits Sync device property. If the property existed, the application would know that it could successfully sync to the device.

You can assign device properties to a device when the device is first added to your FreeMIDI configuration or at a later time. The FreeMIDI Device Specification dialog box is where this assignment is made. See "Editing FreeMIDI Devices" on page 215 and "Adding FreeMIDI Devices" on page 214, for information on assigning device properties to devices.

Adding Device Properties

You can add device properties to the default properties found in FreeMIDI.

To add device properties:

1 Choose *Device Properties...* from the Configuration menu.

The Device Properties window appears.

Figure 35-25: Device Properties Window

2 Enter the name of the property that you wish to add in the text entry box at the bottom of the dialog box and click *Add*.

The new device property will appear in the device property list. You may add as many device properties as you like at this time.

3 When you are done adding device properties, close the window by clicking its close button.

Once device properties are added, they will immediately be available in the FreeMIDI Device Specification dialog box pop-up menus.

Removing and Renaming Device Properties

You can remove or rename device properties.

☛ Use caution when removing or renaming device properties that are in use by FreeMIDI devices in the current or any other configuration. The properties will be removed or renamed in all FreeMIDI devices to which they are assigned.

To remove or rename any existing device properties:

1 Choose *Device Properties...* from the Configuration menu.

The Device Properties window appears.

2 Select the device property you wish to remove or rename.

3 If you are renaming the device property, enter a new name in the text entry box at the bottom of the window and click *Rename*.

The new name for the device property appears in the list.

4 If you are removing a device property, click *Remove*.

The device property you select will be removed from the list.

MIDILOCATE

MidiLocate is a unique feature designed to make adding devices to your FreeMIDI configuration easier. In this mode, FreeMIDI automatically determines the proper input cable to which a device is physically attached and then displays this connection in the FreeMIDI Configuration window.

MidiLocate is a checkable menu item. This means that its state (on or off) is toggled each time you choose it from the menu. When there is a check next to the MidiLocate menu item in the MIDI menu, MidiLocate is enabled.

To use MidiLocate:

1 Select a FreeMIDI device in the FreeMIDI Configuration window.

2 Check to be sure that MidiLocate menu item in the MIDI menu is enabled.

The MidiLocate command should have a check next to its name. If it does not, choose it to select it. You can also use the Mac keyboard shortcut to toggle the state of MidiLocate by typing command-L.

3 Play some MIDI data from the MIDI device.

FreeMIDI will determine from where the MIDI data is coming and redraw the FreeMIDI Configuration window to indicate the appropriate connection.

Here is an example of MidiLocate in action. Let's say you have a Kurzweil K2000 that is connected to some MIDI input on your MTP II, but you are not sure which input:

1 Add a K2000 FreeMIDI device your configuration using *Quick Setup* or *Create Device*.

2 Enable MidiLocate.

3 Select the K2000 device.

4 Play some notes on its keyboard or send some other MIDI data from it and the K2000 device automatically is connected to the correct MIDI input port on your MTP II in the FreeMIDI Configuration window.

THE TRANSPORT CONTROLS

The Transport Controls window contains buttons which can control the transport functions (Play, Stop, Rewind, Locate) of other FreeMIDI applications from within FreeMIDI Setup. For instance, you might want to start a sequence

playing in Performer while you are working on some aspect of your FreeMIDI setup. You do so by opening the Transport Controls window, enabling FreeMIDI Sync, and clicking Play. With this feature there is no need to switch to Performer.

Once FreeMIDI Sync is enabled you can also stop Performer, rewind the sequence, or locate to up to 8 predefined positions within the sequence directly from FreeMIDI Setup.

FreeMIDI Sync can be enabled from any FreeMIDI application that is currently open and that supports this feature of FreeMIDI. In Performer, this command is in the Basics menu. When you enable FreeMIDI Sync in any open FreeMIDI application, it is enabled for all FreeMIDI applications on that Macintosh.

☛ The state of FreeMIDI Sync (ON or OFF) cannot be changed while a FreeMIDI application such as Performer is playing.

To use the Transport Controls:

1 Choose *Transport Controls...* from the MIDI Menu or type command-= on your Mac keyboard.

The Transport Controls window appears.

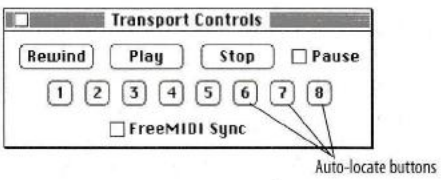


Figure 35-26: : Transport Controls Window

2 Click *FreeMIDI Sync* to enable FreeMIDI Sync.

You can skip this step if FreeMIDI Sync has already been enabled by some other FreeMIDI application. If it is already enabled, the FreeMIDI sync checkbox appears checked.

3 Click the Transport Control function that you want to use.

Click Rewind, Play, Stop, or Pause to send those commands to the FreeMIDI application that you are controlling. The FreeMIDI application should respond to these commands as if you were using its own controls.

4 If the FreeMIDI application that you are controlling supports their use, you can use any of the 8 auto-locate buttons to auto-locate to some pre-defined location in the sequence or song that is currently playing.

In Performer, you can define these auto-locate points in the Markers window. Assign a number from 1-8 for a marker in the Seek column and that marker's location in the sequence will be defined as one of the 8 FreeMIDI auto-locate points. Click the corresponding button in the Transport Controls window and Performer will locate to that point. You can auto-locate at any time, even during playback.

THE PANIC COMMAND

The Panic command found in the MIDI menu sends an *All Notes Off* MIDI message and then a *note off* MIDI message for every MIDI note on every possible MIDI channel on every MIDI output cable on both serial ports. It also resets MIDI software buffers in FreeMIDI software.

This command can take quite a while. If you wish to stop the operation, type command-period on your Mac keyboard.

CHECK CONNECTIONS MODE

The Check Connections command is a utility that FreeMIDI Setup provides for troubleshooting and testing the connections of your MIDI studio.

Check Connections is a checkable menu item. This means that its state (on or off) is toggled each time you choose it from the menu. When there is a check next to the Check Connections menu item in the MIDI menu, Check Connections mode is enabled.

Checking MIDI Output

To use Check Connections mode to check MIDI output connections:

1 Check to be sure that the Check Connections menu item in the MIDI menu is enabled.

The Check Connections command should have a check next its name. If it does not, choose it to select it. When the menu item is checked, Check Connections mode is enabled and the mouse cursor will change to the Check Connections cursor when it is within the FreeMIDI Configuration window as shown in Figure 35-29 below.

Figure 35-27: Check Connections mouse cursor

2 Press a device icon and hold the mouse button down.

While you hold the mouse button down, FreeMIDI sends a C major chord on all MIDI channels to the MIDI output port to which the selected device is connected. If you have an MTP, MTP II, MIDI Express or other interface which can show MIDI output activity, the LED should light up on the selected output port. Additionally, the device to which you are playing MIDI should play the C major chord. If you do not see MIDI activity or do not hear the C major chord, check the connections, cables and power switches of all your MIDI gear.

3 Press other device icons to test the rest of your studio.

4 Uncheck the Check Connections menu item in the MIDI menu by selecting it.

Checking MIDI Input

To use Check Connections mode to check MIDI input connections:

1 Check to be sure that Check Connections menu item in the MIDI menu is enabled.

The Check Connections command should have a check next its name. If it does not, choose it to select it. When the menu item is checked, Check Connections mode is enabled and the mouse cursor will change to the Check Connections cursor when it is within the FreeMIDI Configuration window as shown in Figure 35-29 above.

2 Send MIDI data from one of your MIDI devices.

If the device has a keyboard, play notes on it. If it is a rack-mount unit, you will need to find a way to send some type of MIDI data from it. Try changing patches or initiating a system exclusive dump from its front panel.

3 The MIDI port to which the device is connected should flash the eighth note icon as shown below inFigure 35-29.

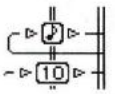


Figure 35-28: Incoming MIDI Data indicator

If no ports flash, this means that FreeMIDI is not receiving the MIDI data. Check the connections, cables and power switches of all your MIDI gear. If a port flashes, but it is not the port you expected, you will need to re-connect the MIDI device to the correct port or better yet, change the connection in your FreeMIDI configuration to match the physical connection. See "MidiLocate" on page 225. for a quick and easy way to re-connect a device in your FreeMIDI configuration.

THE VIEW MENU

The View menu allows you to change the way the FreeMIDI Configuration window displays.

There are three size options, which control the display of FreeMIDI device icons and three input/output options, which control the display of the "patch cords" that connect devices and interfaces, as illustrated in Figure 35-29 below.

There are two sections in this menu that each have three mutually exclusive options. Choosing one of the icon size options disables the other two icon size options. Similarly, choosing one of the input/output view options disables the other two input/output view options.

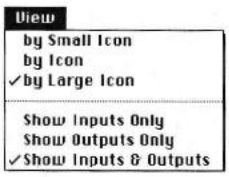


Figure 35-29: The View Menu

To use the View menu to change the display of your FreeMIDI configuration:

1 Choose an icon size option from the View menu and the FreeMIDI Configuration window will redraw (if necessary) to display your choice.

The choices are Small Icon, Icon, and Large Icon. These three choices represent the three icon sizes possible for each FreeMIDI device. See "Editing FreeMIDI Devices" on page 215, for information on changing the icons of your FreeMIDI devices. These options are useful for displaying more or less of your FreeMIDI Configuration, depending on what you are doing at the time.

2 Choose an input/output view option from the View menu and the FreeMIDI Configuration window will redraw (if necessary) to display your choice.

These choices are useful for making the FreeMIDI configuration window display easier to read.

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easier to read.

CHAPTER 36 Quick Reference for FreeMIDI Setup

This chapter contains brief descriptions of all the commands, dialog boxes and windows contained in the FreeMIDI Setup application. Use this chapter as a reference guide for finding out how a certain feature is used. Read the chapters that are cross-referenced for more detailed information on these features.

THE APPLE MENU

The Apple menu contains Desk Accessories under system 6 and what ever is in the Apple Menu Items folder under system 7. The first command in the Apple Menu is About FreeMIDI Setup.

About FreeMIDI

Choose *About FreeMIDI Setup...* to display the FreeMIDI Setup startup screen and version number. Click the mouse anywhere to make this display go away and return to the FreeMIDI Configuration window.

THE FILE MENU

The File menu contains all the commands that allow you to open, close, and save FreeMIDI configuration files. Since FreeMIDI Setup automatically saves any changes that you make to the currently opened configuration, the Save and Revert commands are always grayed-out (disabled) in the File menu.

New

Use the New command to close the current configuration and open a new empty configuration. You will be asked if you are sure that you want to close the current configuration, since this will affect all FreeMIDI applications that are currently being used. The new configuration will contain the same MIDI interfaces as the previous configuration. Use the Re-Scan Serial Ports command to make FreeMIDI scan for a different set of MIDI interfaces.

Open

Use the Open to close the current configuration and open a previously defined configuration. You will be asked if you are sure that you want to close the current configuration, since this will affect all FreeMIDI applications that are currently being used. The opened configuration will contain the same MIDI interfaces as the previous configuration. Use the Re-Scan Serial Ports command to make FreeMIDI scan for a different set of MIDI interfaces.

Close

Use the Close command to close the current configuration and open a new empty configuration. You will be asked if you are sure that you want to close the current configuration, since this will affect all FreeMIDI applications that are currently being used. The new configuration will contain the same MIDI interfaces as the previous configuration. Use the Re-Scan Serial Ports command to make FreeMIDI scan for a different set of MIDI interfaces. Since FreeMIDI must always have a current configuration in order to operate, this command works identically to the New command explained above.

Save As...

Use the Save As...command to save the current configuration file with a new name.

To save the current configuration file with new name:

1 Choose *Save As...*from the File menu.

The Save As dialog box will appear.

2 Type in the new name for the configuration file.

You can't use a colon (:) in the name; however all other characters are permitted, including spaces. Navigate to the disk and folder to which you wish to save the configuration file using the directory menu at the top of the window. If you enter a name that is already in use, a dialog box will ask you to confirm your choice.

3 Click Save.

Your configuration file is saved on the disk in its current state under the new name.

FreeMIDI Preferences

Use the FreeMIDI Preferences command to open the FreeMIDI Preferences dialog box. This dialog is where you control some of the global settings of FreeMIDI such as which serial ports FreeMIDI will use, whether Inter-application MIDI is enabled, whether non-FreeMIDI applications will have access to the serial ports and whether patch change monitoring is enabled.

Quit

Use the Quit command to exit the FreeMIDI Setup application. Since FreeMIDI automatically saves all changes to the current configuration, you will never be asked to save changes when you exit FreeMIDI Setup.

THE EDIT MENU

The Edit menu contains commands for copying and pasting FreeMIDI devices in the FreeMIDI Configuration window. These commands can also work in the standard Mac way anywhere in FreeMIDI Setup where you can edit text.

Undo

Use the Undo command to undo the last edit or change that you made to your FreeMIDI Configuration. Generally, this command displays the command that it will Undo, such as Undo Drag or Undo MidiLocate. As a shortcut, type command-Z on your Mac keyboard to invoke this command.

Cut

Use the Cut command to place a copy of the current selection on the Clipboard and then remove the current selection. As a shortcut, type command-X on your Mac keyboard to invoke this command.

Copy

Use the Copy command to place a copy of the current selection on the Clipboard. As a shortcut, type command-C on your Mac keyboard to invoke this command.

Paste

Use the Paste command to insert whatever data is currently on the Clipboard. As a shortcut, type command-V on your Mac keyboard to invoke this command.

Clear

Use the Clear command to remove the current selection. No copies are placed on the Clipboard. As a shortcut, type command-B on your Mac keyboard to invoke this command.

Duplicate

Use the Duplicate command to make copies of the currently selected FreeMIDI devices. This command only works on selected FreeMIDI devices, so it is grayed-out(disabled) unless at least one FreeMIDI device is selected. As a shortcut, type command-D on your Mac keyboard to invoke this command.

Select All

Use the Select All command to quickly select all of the current type of data. For instance, if there is no selection in the FreeMIDI Configuration window, Select All selects all the FreeMIDI devices, interfaces, and connections in the window. If a text entry box is active, such as the name field for a FreeMIDI device, Select All will select all the text in the name field. As a shortcut, type command-A on your Mac keyboard to invoke this command.

THE MIDI MENU

The MIDI Menu contains commands which provide control over FreeMIDI Setup's various MIDI settings.

MIDI Interface

Use the MIDI Interface command to open the MIDI Interface dialog box. This dialog box allows you to enable and disable the two serial ports for MIDI. If, for instance, you have printer attached to the Thru port of your MTP II and the MTP is connected to the Printer serial port, you will need to disable MIDI on the printer port in order to do any printing.

Return

Use the Return command to return to the FreeMIDI application that was last active before switching to FreeMIDI Setup. This command will only have an effect if you switch to FreeMIDI Setup with the Edit FreeMIDI Configuration command from any other FreeMIDI application. As a shortcut, type command-R on your Mac keyboard to invoke this command.

Transport Controls

Use the Transport Controls... command to open the Transport Controls window. The Transport Controls window contains buttons which can control the transport functions (Play, Stop, Rewind, Locate) of other FreeMIDI applications from within FreeMIDI Setup. For more information, see "The Transport Controls" on page 225.

Check Connections

Use the Check Connections command to toggle the state of Check Connections mode. When the menu item is checked, Check Connections mode is enabled. When it is unchecked, Check Connections mode is disabled. For more information, see "Check Connections Mode" on page 226.

MidiLocate ™

Use the MidiLocate command to toggle the state of MidiLocate. When the menu item is checked, MidiLocate is enabled. When it is unchecked, MidiLocate is disabled. For more information, see "MidiLocate" on page 225.

PatchThru

Use the PatchThru command to toggle the state of PatchThru. When the menu item is checked, PatchThru is enabled. When it is unchecked, PatchThru is disabled. For more information, see "PatchThru" on page 223.

MIDI Preferences

Use the MIDI Preferences... command to open the PatchThru Preferences dialog box. This dialog box allows you to choose from two options as to how PatchThru and Check Connections will function. For more information, see "MIDI Preferences" on page 223.

Panic

Use the Panic command to send an "All Notes Off" MIDI message and then a "note off" MIDI message for every MIDI note on every possible MIDI channel on every MIDI output cable on both serial ports. This command will also reset all MIDI buffers in all FreeMIDI software. This command can take quite a while. If you wish to stop the

operation, type command-., on your Mac keyboard. For more information, see "The Panic Command" on page 226.

THE CONFIGURATION MENU

The Configuration menu provides access to various commands for setting up and changing your FreeMIDI configuration.

Quick Setup

Use *Quick Setup...* to open the Quick Setup dialog box which allows you to quickly add and remove device from your current FreeMIDI configuration. For more information, see "Quick Setup" on page 211.

Create Device

Use *Create Device...* to open the FreeMIDI Device Specification and add a new FreeMIDI device to your current FreeMIDI configuration. For more information, see "Adding FreeMIDI Devices" on page 214.

Edit Device

Use *Edit Device...* to open the FreeMIDI Device Specification and edit an existing FreeMIDI device in your current FreeMIDI configuration. You must select a device before this command becomes enabled. With no devices selected, it remains grayed-out (disabled). For more information, see "Editing FreeMIDI Devices" on page 215.

Device Properties

Use *Device Properties...* to open the Device Properties window which allows you to add, remove and rename device properties which can be assigned to FreeMIDI devices. For more information, see "Device Properties Window" on page 232.

Popup Patchlists

Use *Popup Patchlists* to toggle the state of Popup Patchlists mode. When the menu item is checked, Popup Patchlists mode is enabled. When it is unchecked, Popup Patchlists mode is disabled.

THE VIEW MENU

The View menu controls the way the FreeMIDI Configuration window displays. The three options at the top of the menu, by Small Icon, by Icon and by Large Icon are mutually exclusive, choosing one option disables the other two. When an option is chosen from the menu, it gets a check mark next to its menu item.

The bottom three options, Show Inputs only, Show Outputs only, and Show Inputs and Outputs are also mutually exclusive. For more information, see "The View Menu" on page 228.

WINDOWS

Windows in FreeMIDI Setup are where you do most of your work and where you view the result of your work.

FreeMIDI Configuration Window

This is the main window in FreeMIDI Setup. This window displays a graphical representation of your MIDI studio and its connections. It is in this window that you edit your FreeMIDI configuration. Whatever you see in this window is the current FreeMIDI configuration, in use by all FreeMIDI applications. For more information, see "The Current FreeMIDI Configuration" on page 209.

Transport Controls Window

The Transport Controls window contains buttons which can control the transport functions (Play, Stop, Rewind, Locate) of other FreeMIDI applications from within FreeMIDI Setup. For more information, see "The Transport Controls" on page 225.

Device Properties Window

The Device Properties window is where you can add, rename and remove device properties which can be assigned to FreeMIDI devices. For more information, see "Device Properties" on page 224.

CHAPTER 37 Editing FreeMIDI Device Files

This chapter explains how to:

- Edit the icons that FreeMIDI uses to display devices in the FreeMIDI Configuration window.
- Add devices to the FreeMIDI Devices file so that MIDI devices that are in your studio but not already defined in the current version of FreeMIDI will appear in the manufacturer and model name pop-up menus in places such as the Quick Setup dialog box and the FreeMIDI Device Specification dialog box.

WORKING WITH FREEMIDI ICONS

You can add, delete, and edit icons that ship with FreeMIDI so that you can customize the look of your FreeMIDI configurations.

Adding Icons to FreeMIDI

To add icons to FreeMIDI's icon list:

1 Copy the icon you wish to add from your icon editor to the Clipboard, so that it will be ready to paste.

2 If you have not done so already, open FreeMIDI Setup by double-clicking its icon in the Finder. Alternately, you can open FreeMIDI Setup by choosing the *Edit FreeMIDI Configuration...* command in any other FreeMIDI application.

The FreeMIDI Configuration window will open displaying the current FreeMIDI configuration.

3 Choose *Create Device...* from the Configuration menu or type command-K on your Mac keyboard.

The FreeMIDI Device Specification dialog box appears.

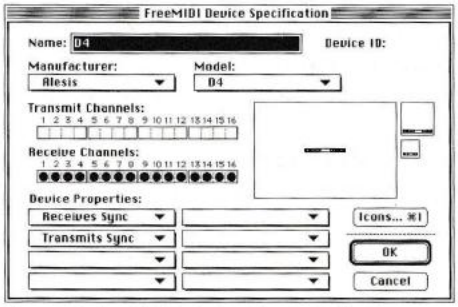

Figure 37-1: FreeMIDI Device Specification Dialog Box

4 Click *Icons...* or type command-I on your Mac keyboard.

The Icons dialog box appears.

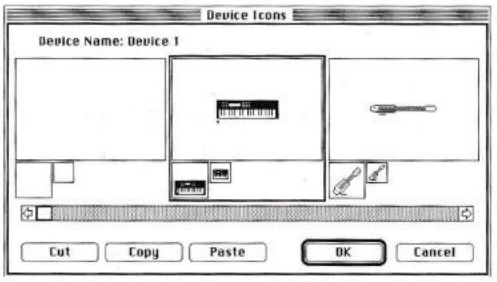

Figure 37-2: Icons Dialog Box

5 Click Paste to paste the icon from the Clipboard into FreeMIDI's icon set.

If there is an icon currently selected, you will be asked whether you want to replace the current icon or create a new icon. Choose the create option and the new icon will be added to FreeMIDI's icon set and you can assign it to any FreeMIDI device. Choose the replace option and the icon will replace the currently selected icon. For more information, see "Editing FreeMIDI Devices" on page 215.

6 Click OK to close the Icons dialog box.

The FreeMIDI Device Specification dialog box reappears.

7 Click Cancel to close the FreeMIDI Device Specification dialog box.

If you do not cancel the FreeMIDI Device Specification dialog box, you will be adding a FreeMIDI device to your FreeMIDI configuration.

Deleting FreeMIDI Icons

To delete icons from FreeMIDI's icon set:

1 If you have not done so already, open FreeMIDI Setup by double-clicking its icon in the Finder. Alternately, you can open FreeMIDI setup by choosing the Edit FreeMIDI Configuration... command in any other FreeMIDI application.

The FreeMIDI Configuration Window will open displaying the current FreeMIDI configuration.

2 Choose Create Device... from the Configuration menu or type command-K on your Mac keyboard.

The FreeMIDI Device Specification dialog box appears as shown in Figure 37-1 on page 233.

3 Click Icons... or type command-I on your Mac keyboard.

The Icons dialog box appears as shown in Figure 37-2 on page 233.

4 Use the horizontal scroll bar and arrows to scroll the FreeMIDI icon list until you see the icon you wish to delete in the center panel.

Alternately, you can click icons to the left or right of the center panel and they will be scrolled to the center panel.

5 Click Cut.

Since this operation cannot be undone, you will be asked to confirm this deletion.

6 Click OK to close the Icons dialog box.

The FreeMIDI Device Specification dialog box reappears.

7 Click Cancel to close the FreeMIDI Device Specification dialog box.

If you do not cancel the FreeMIDI Device Specification dialog box, you will be adding a FreeMIDI Device to your FreeMIDI Configuration.

Editing FreeMIDI Icons

To edit icons in FreeMIDI's icon set:

1 If you have not done so already, open FreeMIDI Setup by double-clicking its icon in the Finder. Alternately, you can open FreeMIDI setup by choosing the *Edit FreeMIDI Configuration...* command in any other FreeMIDI application.

The FreeMIDI Configuration window will open displaying the current FreeMIDI configuration.

2 Choose *Create Device...* from the Configuration menu or type command-K on your Mac keyboard.

The FreeMIDI Device Specification dialog box appears as shown in Figure 37-1 on page 233.

3 Click Icons... or type command-I on your Mac keyboard.

The Icons dialog box appears as shown in Figure 37-2 on page 233.

4 Use the horizontal scroll bar and arrows to scroll the FreeMIDI icon list until you see the icon you wish to edit in the center panel.

Alternately, you can click icons to the left or right of the center panel and they will be scrolled to the center panel.

5 Click Copy to copy the icon to the Clipboard.

6 Click OK to close the Icons dialog box.

7 Click Cancel to close the FreeMIDI Device Specification dialog box.

8 Launch your icon editing program and paste the icon into your editing program.

9 Make the icon look the way that you want and then copy it back to the Clipboard.

10 Choose *Create Device...* from the Configuration menu or type command-K on your Mac keyboard.

The FreeMIDI Device Specification dialog box appears.

11 Click *Icons...* or type command-I on your Mac keyboard.

The Icons dialog box appears.

12 Click Paste to paste the icon from the Clipboard into FreeMIDI's icon set.

You will be asked whether you want to replace the current icon or create a new icon. The new icon will be added to FreeMIDI's icon set and you can assign it to any FreeMIDI device. For more information, see "Editing FreeMIDI Devices" on page 215.

13 Click OK to close the Icons dialog box.

The FreeMIDI Device Specification dialog box reappears.

14 Click Cancel to close the FreeMIDI Device Specification dialog box.

If you do not cancel the FreeMIDI Device Specification dialog box, you will be adding a FreeMIDI device to your FreeMIDI configuration.

EDITING TEXT FILES

Edit the text within the FreeMIDI Devices and Auto Config Devices text files so that FreeMIDI can have more information about various MIDI devices than the information that was shipped with your version.

To edit the text in the FreeMIDI Devices or Auto Config Devices files:

1 Open your text editor application.

You can use any text editor which can save files in a "text only" format. Even the TeachText application from Apple will work.

2 Open the FreeMIDI Devices or Auto Config Devices file.

These files can be found within the FreeMIDI Folder which is located inside your System Folder.

3 Enter the information that you wish to add.

Each file contains a description of the data format that is required by FreeMIDI. Enter the information about devices following this format. If you do not understand this format by reading these descriptions, we suggest that you have someone else do this type of editing for you.

4 Save the file in the "text only" format.

TeachText does this automatically.

5 The next time you open FreeMIDI Setup your changes will appear in the various pop-up menus.

CHAPTER 3

This chapter p
Mosaic menu

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8VA/8VB
See Change 8v

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CHAPTER 38 Quick Reference

This chapter provides a brief explanation of each Mosaic menu command,, window, and palette.

For your convenience, features are listed alphabetically by command name or topic. We have also provided cross-references to other sections in the manual that contain further information about the feature.

8VA/8VB

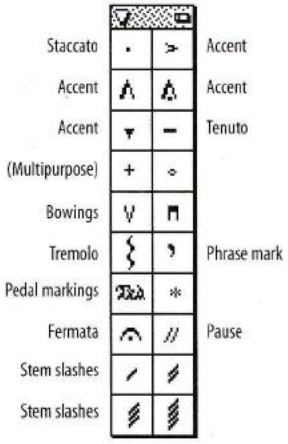
See Change 8va/8vb.

ADD MEASURES

Inserts a desired number of new, empty measures at the end of the score.

ARTICULATIONS PALETTE

The articulations palette items are note-specific. They attach to the note on which you enter them. To enter an articulation, select the desired symbol and click directly on top of or near the notehead. To enter the articulation on several notes at once, select the notes and command-click the desired palette articulation.



AUTO BARLINE

When checked, this Format menu command automatically inserts barlines according to the current meter signature when you enter new measures of notes at the end of the document.

When unchecked, no barlines are automatically inserted.

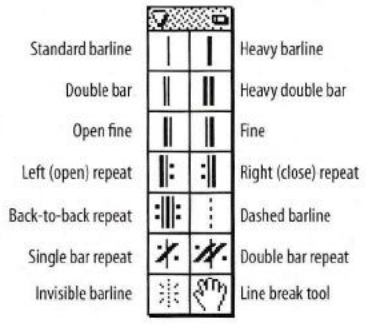
AUTO BEAM

When checked, this Format menu item causes beamable notes to automatically beam when they are inserted or edited. How the beamed notes are grouped is determined by their meter signature.

When Auto Beam is unchecked, beams are never inserted automatically and instead are inserted manually by selecting each group of notes to be beamed together and choosing Beam from the Region menu.

BARLINES PALETTE

Use the barlines palette to change existing barlines into the desired barline. (To create a measure, use the Add Measure command.) To change an existing barline, choose the desired barline from the palette and click directly on the barline you wish to change or click anywhere in the measure to its right. Most of the barlines are self-explanatory, except as noted below.



Invisible barline

Behaves like any other barline except that it does not appear on the staff, either on the screen or when printing out. Use the invisible barline to create barless music.

Line break tool

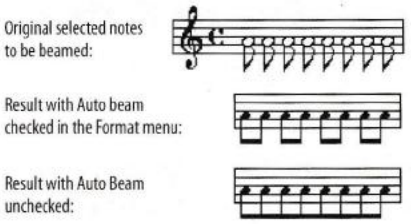
Moves measures to the previous or next line (or staff system). To force a line break, grab the measure(s) that should be on the next or previous system, and drag them up or down (or left or right) towards the previous or next system.

This tool gives you manual control over how many measures appear on a line (or staff system) and where the line or page break occurs. You can open up music that is too crowded by moving one or more measures to the next or previous system. Likewise, you can tighten up music that is too spread out by adding measures to it from the previous or next system.

The line break tool has no effect in a galley view, since a galley view has no line breaks, system breaks, or page breaks.

BEAM

Beams any flagged notes within the selected region. If Auto-beam is checked in the Format menu, notes to be beamed are grouped according to the current meter signature. If Auto-beam is unchecked, all adjacent beamable notes are grouped together.

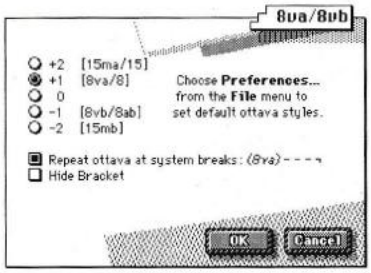


CASTING OFF

The Casting Off command lets you have global control over where line breaks and page breaks occur. For example, it lets you choose four measures per line, with either even or proportional spacing. It also lets you set the overall horizontal spacing.

CHANGE 8VA/8VB

Inserts an octave bracket above or below the selected region of notes. Zero represents no ottava. +1 and +2 represent 8va and 15 ma, respectively. -1 and -2 represent 8vb and 15mb, respectively. The Preferences command in the File menu provides several different options for the ottava markings (i.e. "8" instead of "8va").



8va (+1)

Inserts an 8va (ottava alta) bracket above the selected notes and displays the notes an octave lower than originally written.

15ma (+2)

Inserts an 15ma bracket above the selected notes and displays the notes two octaves lower than originally written.

8vb (-1)
Inserts an 8vb (ottava bassa) bracket below the notes and displays the notes an octave higher than originally written.

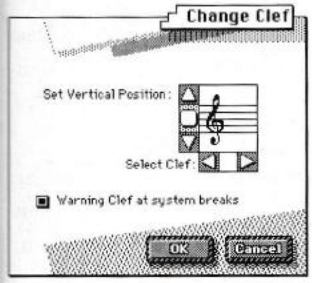
15mb (-2)
Inserts an 15mb bracket below the notes and displays the notes two octaves higher than originally written.

Normal
Removes any existing ottavas from the selected region.

Repeat ottava at system breaks
Causes an "8va" (or "8vb", etc.) to appear at the beginning of the next system when the ottava crosses a system boundary.

Hide bracket
Hides the dashed-line bracket.

CHANGE CLEF
Inserts a clef at the current location of the insertion cursor.

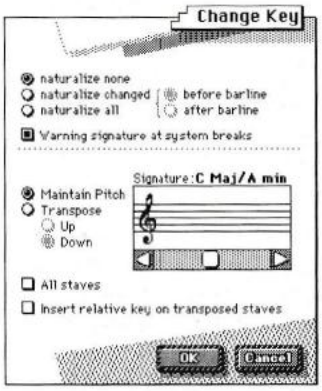


Select clef
Click the left/right arrows to scroll through several choices of clefs. Stop clicking when you see the clef you wish to insert.

Set Vertical Position
Click the up/down arrows to move the clef vertically on the staff. This allows you to place each clef symbol at any vertical position on the staff.

Warning Clef at system breaks
When checked, this option causes a warning clef to be displayed at the end of the previous system when the clef change falls at the beginning of a system. When unchecked, no warning clef is displayed.

CHANGE KEY
Inserts a key signature at the current location of the insertion cursor.



Naturalize none
Inserts the key change with no natural signs before it to cancel the previous key signature.

Naturalize changed
Inserts natural signs before the new key signature of accidentals that have changed from the previous key signature.

Naturalize all
Inserts natural signs before the new key signature of all accidentals in the previous key signature.

Before/after barline
Determines where key change naturals are displayed, either before the barline of the measure where the key change takes place or after the barline.

Warning signature at system breaks
When checked, this option causes a warning key signature to be displayed at the end of the previous system when the key signature falls at the beginning of a system. When unchecked, no warning signature is displayed.

Maintain pitch
Cause the notes being affected by the new key signature to remain at their current pitch and to be respelled correctly according to the new key signature.

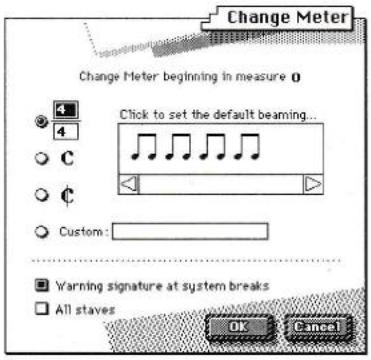
Transpose up/down
Transposes notes to the new key from their current key and respells them correctly according to the new key.

Signature
Select the desired key signature by using the horizontal scroll bar. Key signatures are displayed in the window and identified by name above.

All staves
Inserts the key signature on all staves in the system.

Insert relative key on transposed staves
This option automatically becomes checked when you enable the All staves option. When it is checked, Mosaic assumes that the key you choose in the dialog box is the concert key, and it inserts the correct relative key in each transposed staff. You can also use this option when inserting a key signature in a single transposed staff. You choose the desired concert key, and Mosaic inserts the proper relative key for you.

CHANGE METER
Inserts a meter signature at the current location of the insertion cursor.



Select the type of meter you wish to insert. The first option allows you to type in any standard meter, such as 3/4, 2/4, 6/8, 3/8, 5/16, and so on.

Custom
Allows you to type in complex meters, such as 2+3/8. To enter a custom complex meter, type in the meter using numbers (decimals are permitted), the plus character (+), and the slash character (/).

Click to set the default beaming...
Click the space between notes to connect or disconnect the beam. The beam groups in this window determine how beamed notes are to be grouped within the meter's region by Mosaic's auto-beaming feature.

Warning signature at system breaks
When checked, this option causes a warning meter to be placed at the end of the previous system when the meter change falls at the beginning of a system. When unchecked, no warning signature will be inserted.

All staves
When checked, this option inserts the meter in all staves at the current location of the insertion cursor.

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and so on.

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CHECK RANGE

The Check Range command scans your music for notes that lie above or below the note range you prescribe for each voice in the Voices window. Mosaic automatically scrolls to that offending note and selects the note to identify it.

Check Range begins at the location of the insertion point in the current voice and proceeds to the end of a staff. You can also Check Range on a selected region of notes, even in multiple, selected voices at one time.

CHECK RHYTHM

The Check Rhythm command in the Region menu scans your music for measures that do not have the proper number of beats and rests. When Check Rhythm finds an error, Mosaic automatically scrolls to that offending measure. Check Rhythm begins at the insertion point and proceeds to the end of a staff. You can also Check Rhythm on a selected region of notes, even in multiple, selected voices at one time.

CLOSE

The Close command closes the currently open, active file. (If you have more than one file open at a time, the *active* file is the one whose window is currently active.)

Like many Macintosh programs, Mosaic allows you open more than one file at a time. If you have several files open and you wish to close one of them, activate one of the file's windows. You can do so by clicking the window's title bar or by choosing the window name from the Windows menu. For your convenience, each of the basic windows (Staves, Views, Voices, Lyrics, etc.) display the file name in parentheses in the title bar.

☛ Please note! Clicking the close box in a view's title bar does not close the file. Doing closes the view window, but the file stays open. This is because each Mosaic file can contain multiple views, which you can close and open independently without closing and opening the file. Always use the Close command in the File menu to close the file.

CLIPBOARD

Temporarily stores data that has been cut, copied, or snipped. Data in the Clipboard remains there until it is replaced by newly cut, copied, or snipped data.

CONTROLS

The Controls window provides transport buttons just like a tape deck for controlling playback and recording. It includes a counter to indicate the current playback location in measures and beats.

COPY

Makes a copy of the selected items and places the copy on the Clipboard, from which they can be pasted with the Paste command.

CUT

Removes the selected items and places them on the Clipboard, from which they can be pasted with the Paste command. When removing notes, Cut leaves behind the rhythmic duration of the removed notes. If you wish to remove that duration, use Snip. Anything that can be selected can be cut.

DELETE MEASURES

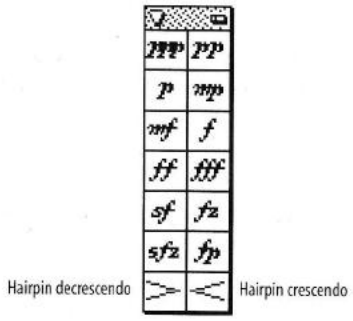
The Delete Measures command lets you quickly remove any range of measures in the score. This command is especially useful when you need to delete quite a few measures because it saves you from having to delete each barline one at a time. To delete measures, place the insertion cursor in the first measure of the region and choose this command.

DOUBLE DURATIONS

The Double Durations command increases the duration of the currently selected notes and rests to the next highest duration. For example, an eighth note will be doubled into a quarter note.

DYNAMICS PALETTE

The dynamics palette items are note-specific (except for the crescendo and decrescendo hairpins). They attach to the note on which you enter them. To enter a dynamic, select the desired symbol and click directly on top of or near the notehead. To enter the dynamic on several notes at once, select the notes and command-click the desired palette articulation.



Hairpin crescendo/decrescendo

To insert a hairpin, click the desired symbol in the palette and then drag above or below the note or notes. To be successfully entered, the hairpin must begin and end on notes that are in the same voice.

EDIT FREEMIDI CONFIGURATION

The Edit FreeMIDI Configuration command in the File menu opens the FreeMIDI Setup program. Doing so lets you add, remove, and modify devices in your FreeMIDI setup. Use this command when you would like to make changes to the device list pop-up menu in the Voices menu.

ERASE

Removes the selected items, but does not place the selected data on the Clipboard. When removing notes, Erase leaves behind the empty measures. If you wish to remove that duration, use Snip. Anything that can be selected can be erased.

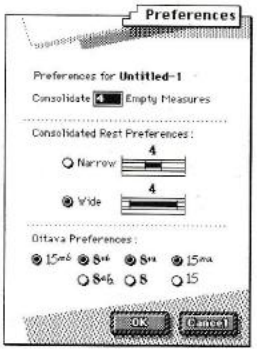
Alternately, you can use the delete key to erase the selected item(s).

EXTEND SELECTION

The Extend Selection command lets you quickly select large regions in the score by specifying the range of measures you would like to select. To use this command, place the insertion cursor at the beginning of the region and choose the Extend Selection command from the Edit menu.

FILE PREFERENCES

The File Preferences command allows you to customize certain aspects of a Mosaic file, such as the minimum number of consecutive empty measure that will be combined with the consolidated rests command, as well as the width of the consolidated rest bar. You can also choose among several ways to display ottavas. Changes you make in this window are reflected immediately throughout all instances of them in the file.



FLIP

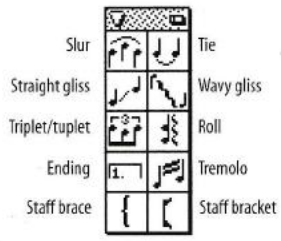
Inverts a selected stem, slur, articulation, or other similar symbol to the opposite side of the staff (above or below).

FLIP ENHARMONIC

Switches a selected note to its enharmonic equivalent spelling.

GROUPINGS PALETTE

To enter a grouping, select the desired grouping palette icon and drag over the notes to which you want to apply the grouping. To insert a grouping over a long region, click the first note of the region, shift-click the last note, and command-click the desired grouping in the palette. The notes at which the grouping begins and ends must be in the same voice. Endings, tremolos, staff braces, and staff brackets are explained in more detail in the sections below.



Endings

To enter an ending, click the palette item and click the measure over which you would like to insert it. If you are inserting an ending over several bars, drag over them. A text box appears beneath the ending bracket. Type in the desired text. To complete the insertion, click the palette icon to deselect it, or click another palette icon.

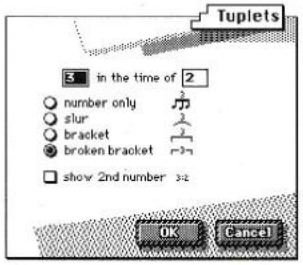
Once entered, edit the text, including the text attributes, by double-clicking it. Edit the ending bracket by clicking it and dragging its handles. To raise or lower it, click the bracket itself and drag up or down. To move the text, drag the text box.

To change the default characteristics of endings, double-click the ending palette tool. Default characteristics include:

- A drop line only at the beginning, only at the end, or on both ends
- The height of the bracket from the measure
- The distance of each end of the bracket from the barlines
- The default text attributes for the ending text

Triplet/Tuplet

To set up the triplet or tuplet, double-click the palette icon to open the Tuplet setup dialog.



Type in the desired tuplet ratio and select the type of tuplet you would like. The Show 2nd number option displays both numbers of the tuplet. For example, a triplet is normally shown with a *3*. With the second number shown, it is written *3:2*.

Staff connections

Insert these by selected the one you want and dragging vertically to the left of the staves you wish to connect. Staff connections can only be inserted in a page view; they cannot be entered in a galley view.

Roll
Insert the tremolo by clicking the palette icon and vertically next to the notes.

Tremolo
To choose the number of bars for the tremolo, double-click the palette icon. Enter the tremolo by selecting the tremolo tool and dragging from one note to the other.

HALVE DURATIONS
The Halve Durations command decreases the duration of the currently selected notes and rests to the next lowest duration. For example, a quarter note will be halved into an eighth note.

HIDE STEMS (RE-STEM)
The Hide Stems command removes stems from the currently selected notes. The Re-stem command brings back the hidden stems.

To use these two commands, select the notes (see "Selecting what you want to edit" on page 131), and choose either Hide Stems or Re-stem from the Format menu.

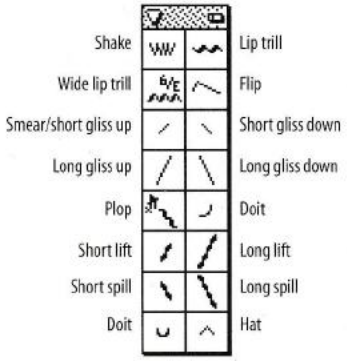
The Hide Stems feature is ideal for TAB (tablature) and chord slashes as shown in Figure 8-4 on page 58.

INSERT MEASURES
The Insert Measures command lets you insert new, blank measures into the score at any location. This command is especially useful when you need to insert quite a few because it saves you from having to click in new barlines one at a time. To insert measures, place the insertion cursor where you would like to insert the measures and choose this command.

INSERT PAGE
The Insert Page # command in the Text menu inserts a special page number character that automatically displays the proper page number for the current page. To use this command, place the cursor in the desired location in any text box and choose Insert Page # from the Text menu. The page number character is inserted at the location of the cursor.

INVISIFY RESTS
The Invisify Rests command causes the currently selected rest(s) to become greyed out on the screen. In addition, the rest is invisible when the page is printed.

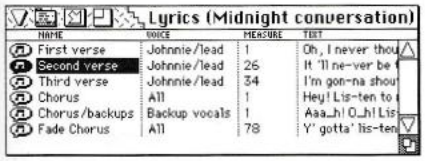
JAZZ PALETTE
The jazz symbols palette items are note-specific. They attach to the note on which you enter them. To enter a jazz symbol, select the desired symbol and click directly on top of or near the notehead. To enter the symbol on several notes at once, select the notes and command-click the desired palette symbol.



KEY BINDINGS
The Key Bindings window lets you customize the layout of the keystroke commands on the Macintosh keyboard. It even provides keystroke sets that emulate other music notation software, such as Professional Composer, Finale, and Encore.

LYRICS WINDOW

Displays all of the lyrics in the file. The name of the file to which the Lyrics window belongs is displayed in the title bar in parentheses.



To create a new lyric, choose Add from the mini-menu. To rename a lyric, click its name. To assign the lyric to a voice, choose the voice from the pop-up menu. To set the starting measure for the lyric, type in the measure number. To enter the lyrics, double-click the lyric icon to open the lyric window. To reposition a lyric in the list, drag the lyric icon up or down. To delete a lyric, select it and choose Delete from the mini-menu. To select a lyric, click its icon. To select several lyrics, hold down the shift key and drag over their icons. Mini-menu commands are described below.

Add

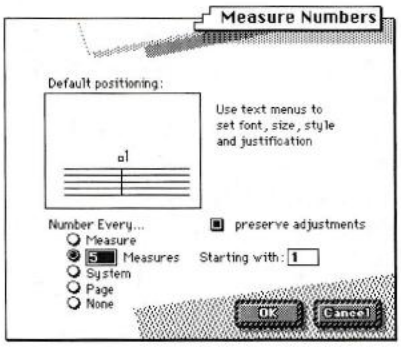
Adds a lyric. To add more than one lyric at a time, hold down the option key while selecting this command.

Delete

Deletes selected lyrics from the list.

MEASURE NUMBERS

Inserts measure numbers in all views. Numbering begins at the measure that contains the insertion cursor at the time this command is chosen from the Format menu. A document can have more than one numbering scheme, and special numbering situations can be accommodated by placing the insertion cursor in the measure where special numbering is needed.



☛ The Measure Numbers menu item is grayed out if the insertion cursor is not currently positioned in a measure. Place the insertion cursor to make the command available.

Default positioning

Drag the sample measure number to determine the default placement of the measure numbers with respect to their measure's initial barline. Also note that as text, the Measure number can be left-justified, right-justified, or center-justified, which further affects the number's position--especially two and three digit measure numbers.

Number every...

Determines how often measure numbers will be displayed.

To place measure numbers:	Choose this option:
At the beginning barline of each measure	Measure
At a regular interval of measures	____ Measures (type in the desired value)
At the beginning of the first measure in each staff system only	System
At the first measure of each page only	Page

None option

Removes existing measures numbers.

Starting with

Determines the number at which measure numbering will begin in the measure that currently contains the insertion cursor.

Preserve adjustments

If the measures have already been numbered, and you have made adjustments to the position of some of the numbers (to avoid collisions with notes, for example), this option (when checked) preserves those adjustments when re-numbering the measures. Uncheck this option if you would like to restore all measures numbers to their default position.

MEMORY MONITOR

Displays the amount of free memory (RAM) available to Mosaic. To increase this amount in MultiFinder or System 7, quit Mosaic, select the Mosaic program icon, and choose Get Info from the File menu. Increase the application memory size in the Get Info window.

MERGE

Places the contents of the Clipboard at the current location and voice of the insertion cursor, combining it with music that is already there. If one or more items are selected at the time you choose Merge, the Clipboard contents are combined with the selected items.

MIDI INTERFACE

The MIDI Interface menu in the File menu lets you tell Mosaic at what speed your MIDI interface is operating. This setting is made automatically by FreeMIDI, so normally you won't need to change it. If you need to set it manually for some reason, most interfaces run at 1MHz/32X, including Mark of the Unicorn's MIDI Express. The MIDI Time Piece II runs at FAST/1X.

NEW

The New command opens a new Mosaic file. You can create a new file at any time, even if another file is already open. The new file is given the temporary name "Untitled". When you save the new file the first time, you are given an opportunity to name the file.

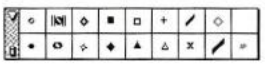
When a new file opens, what you see on the screen depends on the new file default setup that has been saved in the copy of Mosaic that you are running. If you have not yet used the Save As Default Setup command, you will see a window containing a staff on which you can begin entering music.

NEW SETUP

The New Setup command in the File menu automatically builds an entire score for you with the instruments that you choose. It creates all of the necessary voices, staves, transposed staves, score views (both page and galley), and instrument part views, using transposed staves where appropriate. It is an ideal way to get started quickly when creating a new score.

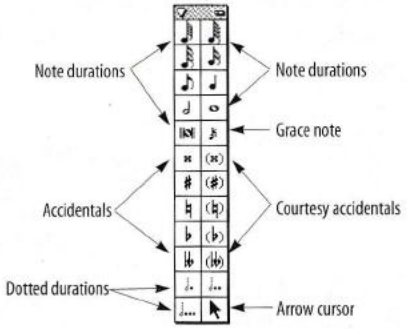
NOTEHEADS PALETTE

The noteheads in this palette can be applied to a single note a region of notes, or all notes in a voice. To change a single notehead, select the desired notehead from the palette and click the note. To change several noteheads, select them and command-click the desired notehead in the palette. To change all noteheads in a voice, double-click a note in the voice to select all notes and command-click the desired notehead in the palette.



NOTES PALETTE

The notes palette items shown below are explained in the following sections.



Note durations
Click a note duration to select it for the next note to be inserted. Or, select the note duration by pressing the appropriate key on the Macintosh keyboard. When the duration is highlighted, either click the mouse on the staff at the desired location, or place the insertion cursor where you want and press the return key or the enter key to insert the note.

Grace note
Turns the currently selected note duration into a grace note of the same duration.

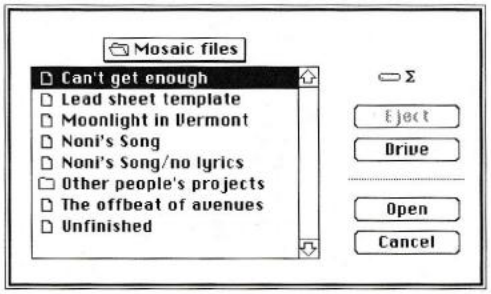
Accidentals
Enters the selected accidental.

Courtesy accidentals
Enter the selected courtesy accidental. A courtesy accidental serves as a reminder for a note that already has the accidental due to the key signature or a previous accidental in the measure.

Dotted durations
Turns the currently selected note duration into a single, double, or triple dot duration.

Arrow cursor
Returns the cursor to the standard arrow cursor for selected, placing the insertion cursor, etc.

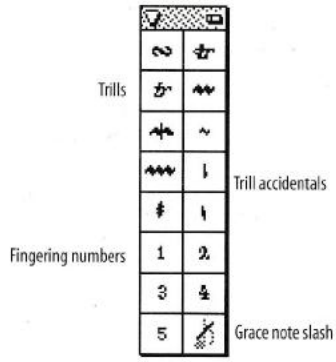
OPEN
The Open command opens Mosaic files and standard MIDI files.



To open a file, click its name to highlight it and click Open. Alternately, you can double-click the file name.

The directory pop-up menu above the list indicates the name of the folder or disk currently being displayed in the window. To locate a file in a different folder, either press the directory pop-up menu or double-click the folder name. To locate a file on a different disk drive, click Drive (or press the tab key). To eject a floppy disk in order to be able to insert another, click Eject. Cancel (or command-period) withdraws the Open command.

ORNAMENTS PALETTE
The ornaments palette items are note-specific. They attach to the note on which you enter them. To enter an ornament, select the desired symbol and click directly on top of or near the notehead. To enter the symbol on several notes at once, select the notes and command-click the desired palette symbol.



OTTAVAS

See "Change 8va/8vb" on page 238.

PASTE

Places the contents of the Clipboard at the current location of the insertion cursor. If one or more items are selected at the time you choose Paste, the selected items are removed and replaced by the Clipboard contents. When you paste several notes, or several measures, they replace notes or measures onto which they are pasted. If you wish to insert the pasted material and slide over music at the insertion point so that it does not get replaced, use Splice.

When pasting copied staves onto a page, the pasted staves appear at the bottom of the page and can be dragged in Show Layout mode to any other location on the page.

If you are in Show Layout mode, and you have copied an entire page layout by choosing Select All and Copy from the Edit menu, the Paste command applies the copied page layout to the currently displayed page in the view.

The Consolidate empty measures option allows you to determine how many consecutive measures must be empty in order for Mosaic to display a consolidated (multi-measure) rest. For example, if you set this option to 5, Mosaic will display a consolidated rest in a system that contains five or more empty measures.

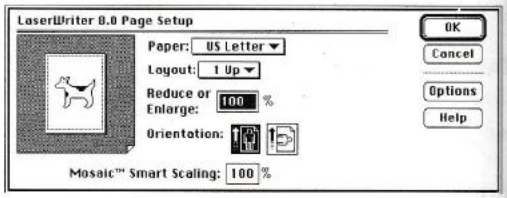
A measure is only eligible for consolidation if it is empty in all staves in the system.

PAGE SETUP

Page Setup defines the paper size, orientation, and special printer effects for the document. The settings in the Page Setup command affect the currently open page view. If the Views window is topmost, this command affects any highlighted page views in the list.

☛ The options you see in this dialog box may be different than what is displayed below because you may be using a different printer, or you may have a different version of the LaserWriter software.

The paper sizes and special printer options that are presented in this dialog depend on the type of printer you are using. The type of printer you are using is determined by what you have selected in the Chooser. If you have selected the LaserWriter, Page Setup offers the following options:



Paper

Most printers support the following paper sizes:

- US Letter (8.5" by 11")
- US Legal (8.5" by 14")

- A4 Letter (European) (210 by 297 mm)
- B5 Letter (176 by 250 mm)
- Tabloid (11" by 17")
- Custom (any size)

The paper size that you choose here should match the size of the paper in your printer.

The custom paper size should be used on some types of printers, such as phototypesetters, that provide for large page sizes. You can make the "virtual" pages in your Mosaic page views match this paper size if you wish by setting the page size in the Page Layout Setup mini-menu command.

Layout

This determines the number of pages to be printed on each piece of paper.

Reduce or Enlarge

Laser printers offer enlargement or reduction at any percentage. Non-Postscript printers, such as the StyleWriter, LaserWriter IISC, and other third-party laser printers offer a few sizes. We strongly suggest that you use Mosaic Smart Scaling instead because it will usually product best results. See "Mosaic Smart Scaling" on page 249.

Orientation

Use the left-hand orientation (vertical) for pages that are taller than they are wide, such as a standard 8.5" by 11" page. Use the right-hand orientation (landscape) for pages that are wider than they are tall, such as a lengthwise score page at 11" by 14".

Mosaic Smart Scaling

The Mosaic Smart Scaling option allows you to scale the document you are printing to any size. This option provides better results in most situations than the standard scaling option provided in the Page Setup dialog box. Leave the standard options set to their default value (100%) and use the smart scale option by typing in the desired percentage.

☛ It is strongly recommended that you obtain Adobe Type Manager (ATM) for best results on a non-Postscript printer, especially when enlarging or reducing the printout or when printing in best quality mode.

Options

When you click the options button, you get the follow options:

Font substitution causes the laser printer to replace outline (high-quality) fonts that it cannot find in the system with an outline font that is available. The result is that all output will be high-quality. If this option is unchecked, the missing font will appear bitmapped (jagged) in the printout.

Text smoothing causes bitmap text to be smoothed.

Graphics smoothing causes bitmap graphics to be smoothed. This option has no effect on printing in Mosaic, since a Mosaic file cannot contain bitmap graphics.

Faster Bitmap printing speeds up the printing of bitmaps, but can sometimes cause printing errors.

For details about printer effects for other printers, refer to the printer manual.

Print Quality

Dot-matrix and ink-jet printers usually offer at least two print qualities: *Faster* and *Best*. Faster mode produces a less crisp image and prints pages more quickly than Best mode, which produces the highest degree of resolution possible on the printer.

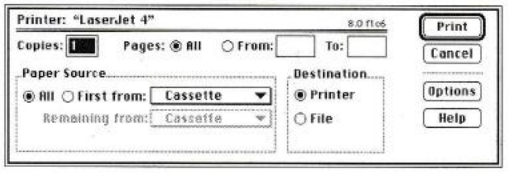
☛ Please note! Do not use Draft mode. Doing so causes your music document to be printed with alpha-numeric characters instead of music symbols!

PICT CAPTURE

The PICT Capture command lets you export notation to other programs. Choose the command and drag a selection box over the notation you would like to export. (This only works in page views.) When you release the mouse, the notation is exported to the Macintosh Clipboard. You can then switch to any other graphics program--even the Scrapbook--and use the standard Paste command to paste in the music.

PRINT

Initiates the printing of the currently active view, or, if the Views window is topmost, the currently highlighted views in the Views window. This command greys out for galley views, which cannot be printed. To print music in a galley view, place the staves in a page view. This command presents a dialog with several options:



☛ Note! The options you see in this dialog depend on the printer you are using and on the version of the System Software that you have installed in your computer.

Copies

Type the number of copies you wish to print.

Pages

Choose either all pages or type in a page range. Be sure that the page range you type matches the page numbers in the view.

Paper Source

Choose between the paper cassette in the printer or hand-fed sheets manually inserted into the printer.

Destination

Click Printer to print out the music on the printer. Click File to save the music output as a Postscript® file on disks. Click help for more information.

QUIT

Closes all open files, exits the Mosaic program, and returns to the Finder. If an open file has unsaved changes, Mosaic asks if you wish to save them before closing the file.

REALIGN

When several staves are selected in Show Layout mode, this Format menu command spaces them evenly within the vertical space prescribed by the highest and lowest selected staves. All staves between them are spaced evenly within the given space.

When using this command, you can control the spacing proportions between staves, systems, and staff groups by modifying the ledger line values in the Staff Layout Preferences command in the Format menu.

REBAR

Rearranges existing notes and rests in a voice to place the proper number of beats in each measure in a region in accordance with the current meter signature.

To rebar a region of notes, select the region. To rebar all voices on a staff, place the insertion cursor at the location where you wish to begin rebarring the staff. To rebar voices on more than one staff, select the voices.

REDO

Restores the last action that was reversed with Undo. Redo and Undo are unlimited. You can reverse and retrace as many steps as you want, going all the way back to the beginning of the session (when you first opened the file).

REFORMAT

When staves are selected in Show Layout mode, this Format menu command restores their spacing to the default values specified by the Staff Layout Preferences command in the Format menu.

REHEARSAL MARKS

See "Text" on page 255.

RE-STEM

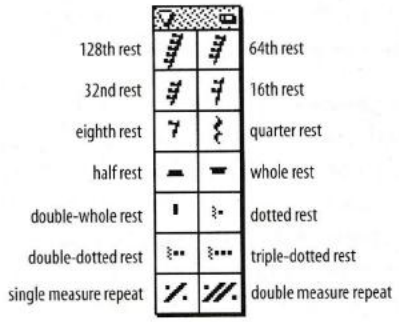
See "Hide Stems (Re-stem)" on page 244.

RESTORE DEFAULT SPACING

The Restore Default Spacing command returns the currently selected notes to their original, default horizontal spacing.

RESTS PALETTE

The rests palette items shown below are explained in the following sections.



Rests

Click a rest duration to select it for the next note to be inserted. When the duration is highlighted, either click the mouse on the staff at the desired location, or place the insertion cursor where you want and press the space key to insert the rest.

Dotted durations

Turns the currently selected rest duration into a single, double, or triple dot duration.

RETAIN TOOL SELECTION

The Retain Tool Selection command causes palette items to remain selected while you use them. It is helpful when you need to accomplish several tasks with the tool.

REVERT TO SAVED

The Revert to Saved command closes the file without saving changes and reopens the last saved version of the file from disk. This command does the same thing as choosing Close, answering "No" to save changes, choosing Open, and opening the same file.

Revert to Saved is useful for discarding all changes you have made to a file since you last saved the file.

SAVE

The Save command writes to disk a copy of the currently open, active file, replacing the last saved version of the file on the disk. (If you have more than one file open at a time, the *active* file is the one whose window is currently active.)

If you are saving for the first time, Mosaic presents a dialog box which asks you to name the file and choose a disk on which to save it. Type the name (no colons are allowed). Use the directory pop-up menu and the Drive and Eject buttons if necessary to choose a disk. Click Save (or press return) to complete the operation. Click cancel (or press command-period) to withdraw the save operation. If a file with the same name already exists, you will be asked if you wish to replace it. If so, answer yes. If not, click no and type in a different name.

Here are a few recommendations regarding saving:

- Save frequently--even as frequently as every time you make a change that you like. Thus you won't lose work should Mosaic or the computer be interrupted.

- Save to a disk that has plenty of free space. Saving to a disk that is almost full can cause serious, irreparable damage to the file, the disk, or other files on the disk.

SAVE AS

The Save As command is a way for you to create a new file based on an existing one. It allows you to save a copy of the currently open file under a different name.

Save As is useful when you would like to make changes to a file and save them, but you still want to preserve the original file. In this case, the Save command would not be the right command to use because it would replace the original file with the newly modified file, thus erasing the original file. Save As lets you save the modified file under a different name.

SAVE AS DEFAULT SETUP

The Save As Default Setup command allows you to customize the file that you get when you choose New from the File menu. You can determine window positions, zoom settings, text, margins, stave/system structure, file settings such as Show Layout and Combine Rests, and more. To customize your new file setup with the Save As command, open a Mosaic file, set it up the way you wish, and then choose Save As Default Setup.

We also recommend that you save the file to disk as a regular Mosaic file so that you can restore it if it gets lost. *The new file setup is stored in the Mosaic Preferences file in the Preferences Folder in the System Folder.* If this file somehow gets removed or damaged, you'll lose the new file setup along with your other preferences. If this happens, just open your new template setup file and use the Save As Default Setup command again to restore it.

SCALE

The Scale command lets you reduce or enlarge the size of notes independently from the staff. It is ideal for shrinking notes for the purposes of cue note passages and cadenzas. All symbols attached to the notes scale with them.

SCALE SPACING

The Scale Spacing command lets you tighten or expand the spacing of any selected note or region of notes. Select the desired notes, choose this command, and type the desired percentage.

SELECT ALL

Highlights all items in the currently active window. Once highlighted, the items are selected and can be edited.

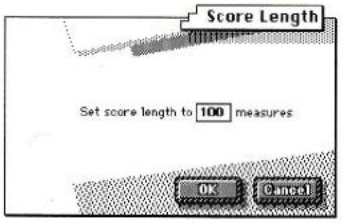
SET SCORE LENGTH

When you create a musical score in Mosaic, it contains a certain number of measures. When you open a new file, it contains one measure, and new measures are added as you enter music.

Adding blank measures to a Score

You might, however, like to set up the score before you begin entering music. For example, you might create a score template that contains 100 measures, in which you would like to place meter changes, key changes, repeat barline sections, and so forth, before you begin entering notes.

To do so, choose Set Score Length from the File menu, type in the desired number of measures, and click OK. The measures are added as empty measures (with a whole rest).



Removing empty measures at the end of a Score

Once you have entered your score, you may find that you have a number of extra empty measures at the end of the score that you would like to remove.

To do so, count the number of empty measures. Choose Set Score Length and subtract the number of empty measures from the number shown. Type in the result and click OK.

SHIFT

The Shift command allows you to slide notes and rests earlier or later in a piece of music. For example, you could select a section and move it four bars earlier.

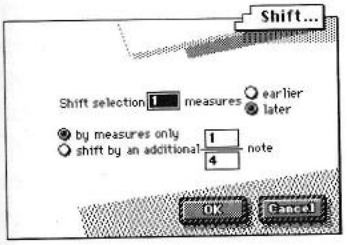
To use the Shift command:

1 Select the music that you wish to shift.

For information about selecting, see "Selecting what you want to edit" on page 131.

2 Choose Shift from the Edit menu.

The Shift dialog box appears.



3 To shift by a number of whole measures, type the number of measures, select either earlier or later, and click OK.

4 To shift by a number of measures plus an additional duration, type the number of measures, click the "shift by an additional x note" option, type in the appropriate duration, and click OK.

5 To shift by less than a measure, type in 0 measures, click the "shift by an additional x note" option, type in the appropriate duration, and click OK.

SHOW LAYOUT MODE

A mode in which a view can be placed by selecting the Show Layout item in the view's mini-menu. The command then changes to *Hide Layout*. To exist Layout Mode, choose Hide Layout from the mini-menu.

In Show Layout mode, any aspect of the page's layout can be controlled, such as staff spacing, page margins, staff margins, staff size, etc. Notes and other items that are not related to layout still appear in the window on the staves but they cannot be edited.

SNIP

Removes the selected items and places them on the Clipboard, from which they can be pasted with the Paste command. When removing notes, Snip closes the rhythmic gap (duration) left behind by the removed notes by shifting up all notes and rests after them. Snip is used primarily for removing notes and rests.

SPLICE

Places the contents of the Clipboard at the current location of the insertion cursor (or currently selected note or rest) and slides over music after the insertion point so that it does not get replaced by the spliced material. When you paste several notes, or several measures, they replace notes or measures onto which they are pasted. If you wish to replace existing material with the Clipboard material, use Paste. If you wish to combine the Clipboard material with existing material, use Merge.

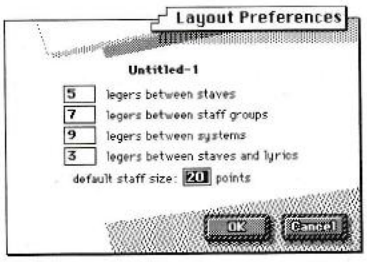
SPLIT NOTES

Separates notes that share the same stem so that you can flip the stems in opposite directions or displace notes left and right. Split notes can be used on notes that are in the same voice, as well as notes in different voices that share the same stem.

STAFF LAYOUT PREFERENCES

Sets the default spacing for staves and the default size of staves when they are first placed in a view. These spacing options affect how staves are spaced when you:

- First add staves to a view
- Return staves to their default spacing using the Reformat command
- Space staves evenly within any vertical region using the Realign command. Since the exact number of ledger lines won't necessarily match in this case, ratios of these default values are used.



Ledgers between staves

Determines the default space between staves in a staff system in the number of ledger lines between them.

Ledgers between staff groups

Determines the default space between staff groups within an staff system. The "staff groups" option refers to any set of staves connected with either a brace or a bracket. This option allows you to create a larger space between staff groups than the space between staves within each group to better differentiate between groups of staves in a system.

Ledgers between systems

Determines the default space between staff systems when two or more systems appear on a page.

Ledgers between staves and lyrics

Determines the default spacing of a lyric line from its staff.

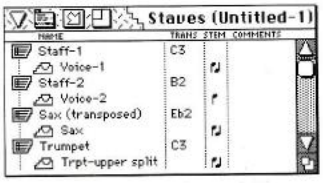
Default Staff Size

Determines the default size of staves when they are first added to a view. Size is expressed in point size. The standard staff size is 20 points. Any point size is allowed.

☛ Please note! For better screen display, use a staff point size that is a multiple of 4, such as 12, 16, 20, 24, 28, etc.

STAVES WINDOW

Displays all of the staves in the file. The name of the file to which the Staves window belongs is displayed in the title bar in parentheses.



To create a new staff, choose Add staff from the mini-menu. To rename a staff, click its name. To change the staff transposition, pop-edit in the Transposition column. To enter a comment, click the Comments column. To reposition a staff in the list, drag the staff icon up or down. To delete a staff, select it and choose Delete from the mini-menu. To select a staff, click its icon. To select several staves, hold down the shift key and drag over their icons. To configure the staff, double-click its icon. To place a staff in a view, drag the staff icon from the Staves window into the opened View window. Mini-menu commands are described below.

Add staff
Adds a staff. Select the desired clef from the clef sub-menu. To add more than one staff at a time, hold down the option key while selecting this command.

Add staff with voice
Identical to the above command, except that the staff is added with a new voice already assigned to it.

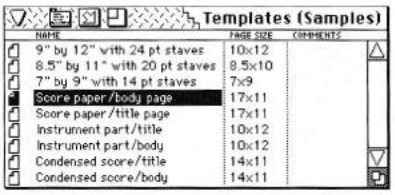
Show voices
When this menu item is checked, the voices assigned to the staves appear indented below the staff. When unchecked, no voices appear in the list.

Delete
Deletes selected voices from the list.

Configure...
Opens the staff configuration dialog for the currently selected staff or staves. Staff configuration allows you to set the number of staff lines, turn ledger lines on or off, rearrange the order of and delete voices, and set the default stem direction for the voices on the staff.

TAB NOTEHEADS PALETTE
The noteheads in this palette can be applied to a single note, a region of notes, or all notes in a voice. To change a single notehead, select the desired notehead from the palette and click the note. To change several noteheads, select them and command-click the desired notehead in the palette. To change all noteheads in a voice, double-click a note in the voice to select all notes and command-click the desired notehead in the palette.

TEMPLATES WINDOW
Displays all of the template views in the file. The name of the file to which the Templates window belongs is displayed in parentheses next to it in the Windows menu.



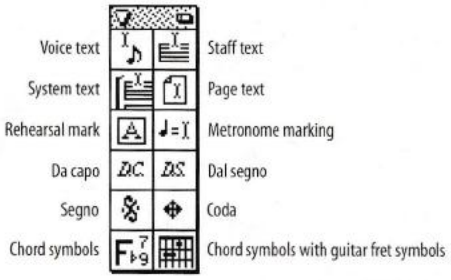
To create a new template view, choose Add from the mini-menu. To rename a template view, click its name. To enter a comment, click the Comments column. To reposition a template view in the list, drag the template view icon up or down. To delete a template view, select it and choose Delete from the mini-menu. To select a template view, click its icon. To select several template views, hold down the shift key and drag over their icons. To open the template view window, double-click the template view's icon. Mini-menu commands are described below.

Add
Adds a template view. To add more than one template view at a time, hold down the option key while selecting this command.

Delete
Deletes selected template views from the list.

TEXT
Mosaic provides several types of text. Each type is explained in one of the following sections.

Text palette
Each tool is explained in a section below.



The Text menu

To change the text attributes (font, style, point size, and justification) of any text inside a text box, select the text and choose the desired attribute from the menu.

Text editing

Mosaic shares the same conventions for text editing as most Macintosh graphics software. To enter text, click the desired text tool and drag out a text box. Choose font attributes from the Text menu. Type the text in the standard fashion, using the delete key and return key if necessary. To finish entering the text, click the same text palette item to deselect it, or click another palette tool. To edit a text item, double-click it. To change the size of the text box, select it and drag its handle. To delete a text box, click it once to select it and press the delete key. To change the font, point size, or style of the entire select box, click the text once to select the text box and choose the desired attributes from the Text menu. To change the attributes of a selection within the text box, double-click the text box, select the desired text, and choose the desired attributes from the Text menu.

Changing the default text attributes (font, style, size, etc.)

To change the default text attributes of palette text items such as measure numbers, system text, and rehearsal marks, double-click the palette icon and choose the desired text attributes from the text menu.

Voice text

Voice text behaves much like note-specific symbols such as articulations and ornaments: it is anchored to a specific note in a voice, and it sticks with the notes when the note is cut, copied, pasted, repositioned, etc.

To insert voice text, click the voice text palette icon, click the notehead of the note to which you want to attach it, and type the text.

Staff text

Staff text appears above or below the staff and is anchored to the measure at which you insert it; it does not flow with the music.

Enter staff text by clicking the staff text icon and clicking the measure. To set the default font, style, and point size, double-click the staff text palette icon.

System text

System text appears above the top staff of a staff system. If a staff from that system is placed by itself in another view, the system text appears above it as well. System text is ideal for directions in a score that need to appear in each individual instrument part as well, such as general directions, tempo markings (such as *Andante*), and cues.

Enter system text by clicking the system text palette icon and clicking the measure over which you wish to place it. Double-click the system text palette icon to set the default text attributes.

System text can be edited in the standard fashion.

Page text

Page text can only be inserted in a page view. It is anchored to the page, exists as part of the entire page layout, and copies and pastes along with the entire page layout. Examples of page text are a title, subtitle, header, footer, page number, or copyright notice.

Insert page text by clicking the page text palette icon, dragging out a text box, and typing in the text.

Rehearsal marks

Insert a rehearsal mark by clicking the rehearsal mark palette icon and clicking the measure over which you wish to place it. Double-click the rehearsal mark palette icon to set the default text attributes.

Rehearsal marks are a form of system text, so they appear above the top staff in a system, and above every staff within the system when the staff appears by itself in another view.

Metronome marking, D.C., D.S., Segno, Coda

To enter one of these symbols, click the palette item and click the measure over which you would like to insert it. (If you are inserting an ending over several bars, drag over them.) A text box appears with the appropriate symbol (♩=, D.C., D.S., 𝄋, or 𝄌), to which you can add additional text. Type in the desired text. To complete the insertion, click the palette icon to deselect it, or click another palette icon. Once entered, edit the text, including the text attributes, by double-clicking it.

To change the default characteristics of these items, double-click the palette icon to open the default configuration dialog. Default characteristics include:

- the default position above the measure
- the default text attributes (font, size, style, justification)
- the note value for the metronome marking (quarter note, eighth note, and so on)

Measure numbers

To insert measure numbers, place the insertion cursor in the measure where you want to begin and choose Measure Numbers from the Format menu.

Use the dialog options to set the text attributes, starting number, and frequency of numbering. You can change the numbering scheme anywhere in the document by placing the insertion cursor at the desired measure and choosing the Measure Numbers command. Measure numbering occurs in all views.

Staff names

Staff names are entered as page text to the left of each staff. See *Page Text* above.

Page numbers

To insert a page number, create a text box and then choose Insert Page # from the Text menu.

☛ Page numbers cannot be placed in a galley view.

Lyric text

Lyric text is a line of text that flows beneath the notes in a voice with each consecutive word or syllable centering itself beneath each consecutive note.

TRANSPOSE

The Transpose command in the Region menu allows you to transpose chromatically and diatonically.

Chromatic

Allows you to choose the chromatic interval by which you want to transpose.

Diatonic

Allows you to choose the diatonic interval by which you want to transpose.

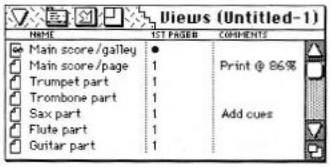
You can also transpose notes diatonically by dragging them vertically. To drag more than one note at a time, select them and then drag one of the selected notes.

☛ To transpose by key, use the Change Key command.

Up/Down
Determines the direction of transposition.

UNDO
Reverses the last action that was taken. Almost anything can be undone. When you choose Undo, the Redo command becomes active, allowing you to restore the action you reversed. The Undo command is unlimited; you can reverse as many previous actions as you want, going all the way back to the beginning of the session (when you first opened the file). Likewise, Redo is unlimited.

VIEWS WINDOW
Displays all of the galley views and page views in the file. Page views appear with a page icon. Galley views have a page icon with an infinity symbol (∞) superimposed on it. The name of the file to which the Views window belongs is displayed in parentheses next to it in the Windows menu.



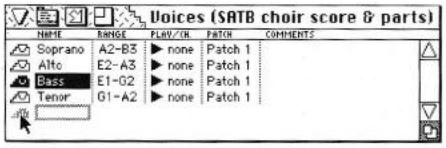
To create a new view, choose Add page or Add galley from the mini-menu. To rename a view, click its name. To change the starting page number for a page view, click it in the column next to the name. To enter a comment, click the Comments column. To reposition a view in the list, drag the view icon up or down. To delete a view, select it and choose Delete from the mini-menu. To select a view, click its icon. To select several views, hold down the shift key and drag over their icons. To open the view window, double-click the view's icon. Mini-menu commands are described below.

Add Page
Adds a page view. To add more than one page view at a time, hold down the option key while selecting this command.

Add galley
Adds a galley view. To add more than one galley view at a time, hold down the option key while selecting this command.

Delete
Deletes selected views from the list.

VOICES WINDOW
Displays all of the voices in the file. The name of the file to which the Voices window belongs is displayed in the title bar in parentheses.



To create a new voice, choose Add from the mini-menu. To rename a voice, click its name. To change the note range for the voice, click it in the column next to the name. To enter a comment, click the Comments column. To reposition a voice in the list, drag the voice icon up or down. To delete a voice, select it and choose Delete from the mini-menu. To select a voice, click its icon. To select several voices, hold down the shift key and drag over their icons. To assign a voice to a staff, drag the voice icon from the Voices window over to the Staves window on top of the desired staff. Mini-menu commands are described below.

Add
Adds a voice. To several voices at a time, hold down the option key while selecting this command.

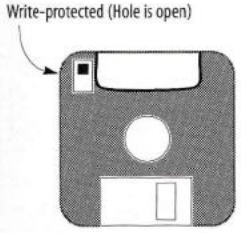
Delete
Deletes selected voices from the list.

APPENDIX A Troubleshooting and Technical Support

PREVENTING CATASTROPHE

Keep up-to-date backups of your files as you work, so that you always have copies of the most recent work you have done. Almost any software problem is survivable as long as you have kept backups of your work. Refer to "Preventing Catastrophe" on page 18 for detailed suggestions about file management.

Keep plenty of free space (20K or more) on any disk containing files which you are actually working on. This will prevent the Macintosh from attempting to save your file onto a disk that doesn't have enough space for the whole file. Running out of disk space while saving can result in an unreadable and irretrievable file.



Keep your Mark of the Unicorn master disks locked (write-protected) at all times by sliding the tab on the back of the disk open so that light can be seen through the rectangular aperture. We recommend that you use the master disks only as resources from which you can make installed copies, and as key disks with which to start the program when you are working with an uninstalled copy. Should your working copy of Mosaic become damaged, you will always be able to go back to the master disk for fresh working copies.

TROUBLESHOOTING

Troubleshooting is always simplest and most effective when the exact problem can be specified clearly and concisely. If you are surprised by an error message or by seemingly erratic behavior in the program, take a moment to jot down the relevant details: exactly what the error message said (including any error ID numbers), what actions were done on-screen just before the problem occurred, what kind of file you were working with, how you recovered from the problem, and any unusual conditions applying during the occurrence of the problem. This may not enable you to solve the problem at once, but will greatly aid in isolating the problem should it reoccur.

If the problem you are encountering seems inconsistent, try to determine what the necessary pattern of actions are that will cause it to occur. Genuine bugs in application software like Mosaic are almost always consistent in their manifestation: the same set of actions under the same conditions invariably brings about the same results. Determining the exact cause of a bug often requires experiments which replicate the problem situation with one factor changed: starting the program from a different disk drive, restarting the Macintosh with a system folder containing different versions of the System File and the Finder, working with a new file instead of an existing one, etc.

Try to isolate the problem. Often, software problems are the result of corrupted data within the file. You can often work around them by copying the music to a new file, and, if necessary, leaving behind the portions of the data that seem to be causing the trouble. For example, you might see an erratic display of music symbols on the screen. If so, try cutting in and around that portion of the score. By doing so, you may be able to remove the corruption completely. You can then re-enter the lost music and proceed on your way. If this does not

work, try copying the unharmed portions of the file into the clipboard and paste them into a new file.

See if the same problem happens in other files. If not, you will most likely be able to abandon the current file by using these copy/paste techniques.

If you cannot open a particular file: first try opening other existing files, or a new file, to be sure Mosaic is working at all. If you have trouble opening more than one file, remove your installed copy of Mosaic and then re-install a fresh copy, as the existing copy has gotten corrupted. Refer also to the list of disk and file errors in "Dealing with file problems and disk errors" on page 17. If a file is opened and seems damaged, will not let you save changes, etc., you still may be able to save some or all of its musical information by using the Clipboard to copy the voices and paste them into another file on another disk.

If Mosaic will not start up at all, or always brings up an irregular or damaged file when the Mosaic icon is opened from the Finder, your working copy may be damaged. Remove your installed copy of Mosaic and then re-install a fresh copy. To be thorough, try installing from your backup master disk (i.e. not from the key disk from which the original working copy was made). Restart the Macintosh and try opening another (new or existing) file with your new working copy to see if you have the same problem. Check also to see if other applications (Performer, MacWrite, MacPaint, etc.) are working properly.

If one of your key disks becomes damaged and fails to work as a key, our Customer Support Department will be glad to replace it.

TROUBLESHOOTING FREEMIDI PROBLEMS

The most important tools for tracking down MIDI problems are the Check Connections and PatchThru commands in FreeMIDI Setup. Using these commands can isolate problems that stop the flow of MIDI data from your MIDI gear to the Macintosh and back again.

If screen display in a FreeMIDI sequencer such as Performer is erratic or seems to stall and skip, you may be running into the limits of your Mac's processing power. FreeMIDI gives priority to sending and receiving MIDI data over most screen redisplays. However, with enough of an overload you may hear delays or erratic timing in your music.

Usually the overload is caused by vast reams of aftertouch (mono or poly key pressure), controller, or pitch bend events in one or more synthesizer tracks.

To solve the problem, you must reduce the amount of MIDI information being passed through the modem and/or printer port in the following ways:

- Slow down the tempo of the sequence during the problem passages.
- Delete a track or tracks from the sequence.

If FreeMIDI starts correctly, but you are unable to record (or play) anything, double-check your cable connections and synthesizer settings. Use Check Connections mode to find out where the break in the data flow has happened. Often you will find that FreeMIDI may think that a certain device is connected to an incorrect MIDI port.

If you cannot open a particular configuration file, first try opening other existing configuration files, or a new configuration file, to be sure FreeMIDI is working at all. If a file is opened and seems damaged, will not let you save changes, etc., you still may be able to save some or all of its information by using the Clipboard to copy the devices and paste them into another configuration file.

If FreeMIDI Setup will not start up at all, or always brings up an irregular or damaged file when the FreeMIDI Setup icon is opened from the Finder, your working copy may be damaged. Re-install FreeMIDI from one of your Master disks. Restart the Macintosh and try opening another (new or existing) file with your new working copy to see if you have the same problem. Check also to see if other applications (Performer, MacWrite, MacPaint, etc.) are working properly.

MOSAIC QUESTION & ANSWER

Here are a few commonly asked questions about Mosaic.

"What causes the internal error 'Matching Note Not Found'?"
The 'Matching Note Not Found' internal error can only occur when a single voice has been placed on several staves. If you run into the error, try removing the voice from all but one of the staves. Add it to the other staves only after you have finished entering the voice's notes.

"Sometimes the flags on my eighth and sixteenth notes and rests disappear when I change zoom levels, scroll, or uncover a view. Why?"
Some display glitches are due to the existence of multiple versions of the Sonata screen fonts in the system folder. You can either remove the redundant Sonata screen fonts that were not installed by Mosaic, or you can remove all Sonata screen fonts from your system folder and reinstall them from your Mosaic installation disks.

"When entering notes, sometimes Mosaic will un-flip beams I have flipped, or place the note I am entering in the next measure when I don't want it there. How can I stop that?"
The Auto-beam and Auto-barline algorithms optimize the placement of notes. There are some situations where you will want to disable these features in the menu.

"Sometimes Mosaic is very slow at updating the screen, sometimes not. Why?"
Mosaic is slower at drawing regular text objects than it is at drawing music notation. This is especially true when lyrics are on the page. Try temporarily removing lyrics from the view while you are still editing your music.

"How do I get Mosaic to print all of the parts at once?"
Open the Views window. Select all (or select just the views you want to print), and choose Print from the File menu. All selected views will print out in the order they appear in the list.

TECHNICAL SUPPORT

We are happy to provide customer support to our registered users. If you haven't already done so, please take a moment to complete the registration card in the front of the manual and send it in to us. When we receive your card, you'll be placed on our mailing list and sent a free backup key disk.

Registered users who are unable, with their dealer's help, to solve problems they are encountering with Mosaic may contact our technical support department in one of the following ways:

- Technical support phone: (617) 576-3066
- Tech support fax: (617) 354-3068
- Tech support email: techsupport@motu.com
- AOL (America Online): keyword MOTU (for downloads)
- AOL tech support: MotUTec@aol.com

Tech Support is staffed Monday through Friday 9 AM to 8 PM, Eastern Time.

If you decide to contact tech support, please have your Mosaic manual at hand, and be prepared to provide the following information to help us solve your problem as quickly as possible:

- *The serial number of the program.* This is printed on the cardboard page (at the front of the manual) which holds the registration card. Be sure to retain this page in the manual for your reference. You must be able to supply this number to receive technical support.

- *The version of Mosaic you are working with.* This is displayed briefly in the start-up screen when Mosaic is started; it is also available through the About Mosaic command from the Apple menu from within Mosaic.

- *A brief explanation of the problem*, including the exact sequence of actions which cause it, and the contents of any error messages which appear on the screen. It is often very helpful to have brief written notes to refer to.

- *The pages in the manual* which refer to the parts of the program which you are having trouble with.

- *The version or creation date of the system software you are using to run the Macintosh.* See the Installation Guide for help in finding version numbers for the system software.

We're not able to solve every problem immediately, but a quick call to us may yield a suggestion for a problem which you might otherwise spend hours trying to track down.

Our technical support telephone line is dedicated to helping registered users solve their problems quickly. In the past, many people have also taken the time to write to us with their comments, criticism and suggestions for improved versions of our software. We thank them; many of those ideas have been addressed in Mosaic. If you have features or ideas you would like to see implemented in our music software, we'd like to hear from you. Please write to the Mosaic Development Team, Mark of the Unicorn Inc., 1280 Massachusetts Avenue, Cambridge, MA 02138.

Although we do not announce release dates and features of new versions of our software in advance, we notify all registered users immediately by mail as soon as new releases become available. If you move from the address indicated on your registration card, please send us a note with your change of address so that we can keep you informed of future upgrades and releases.

APPENDIX B Mosaic Keyboard Bindings

A *key binding* is the action that takes place when you press a key on the Macintosh keyboard. For example, if you type the number 4 in Mosaic, the quarter note duration becomes selected in the notes palette. In this case, the *keystroke* "4" is bound to the *function* "select quarter note tool".

Mosaic ships with an set of default key bindings for the entire Macintosh keyboard. These bindings are described in this appendix. If you like, you can change these assignments and create your own customized set of bindings. For details, see Appendix D, "Customizing Mosaic's Key Bindings".

Moving the insertion cursor

Here is a summary of ways to move the cursor:

To move the insertion cursor:	Do This:
Left or right within a measure	Press the left/right arrow keys
Up or down one line or space	Press the up/down arrow keys
To the next or previous measure	Press control and the left/right arrow keys
Up or down one octave	Press control and the up/down arrow keys
To any pitch (A through G) within the current octave	Type the desired letter
To any pitch in a different octave	Press control and the up/down arrow keys to move to the desired octave and then press the desired pitch
To a different voice (either on the same staff or a different one)	Press command and the up/down arrow keys
To a staff above or below the current staff	Press command and the up/down arrow keys

Entering a note, rest, or chord from the keyboard

Once you have placed the insertion cursor and set the duration, you're ready to enter a note, rest, or chord. Below is a summary.

☛ You can use either the main keyboard or the keypad on an extended keyboard to speed up entry.

To enter:	Do this:
A note with no accidental	Press return
A note with natural	Type an equals sign on the extended keypad (=)
A note with a flat	Type a minus sign on the extended keypad (-)
A note with a sharp	Type a plus sign on the extended keypad (+)
A note with a double flat	Type a slash on the extended keypad (/)
A note with a double sharp	Type an asterisk on the extended keypad (*)
A dotted note	Press the period or decimal key and then return
A double-dotted or triple-dotted note	Select the desired note duration and click the double-dot or triple-dot palette symbol
A dotted note with an accidental	Press the period or decimal key, enter, and then the appropriate accidental note key
The first note of a chord	Press enter
The second, third, fourth, etc. note of a chord	Press enter
A note on the same beat with a different duration	Position the insertion cursor on the desired beat/pitch and press enter or return
A rest	Press the space bar
A dotted rest	Press the period or decimal key and then the space bar

☛ Note: the dot will remain highlighted until you deselect it. To do so, press the dot key again.

Adding an accidental to an existing note

Below is a summary of the ways to add an accidental to an existing note:

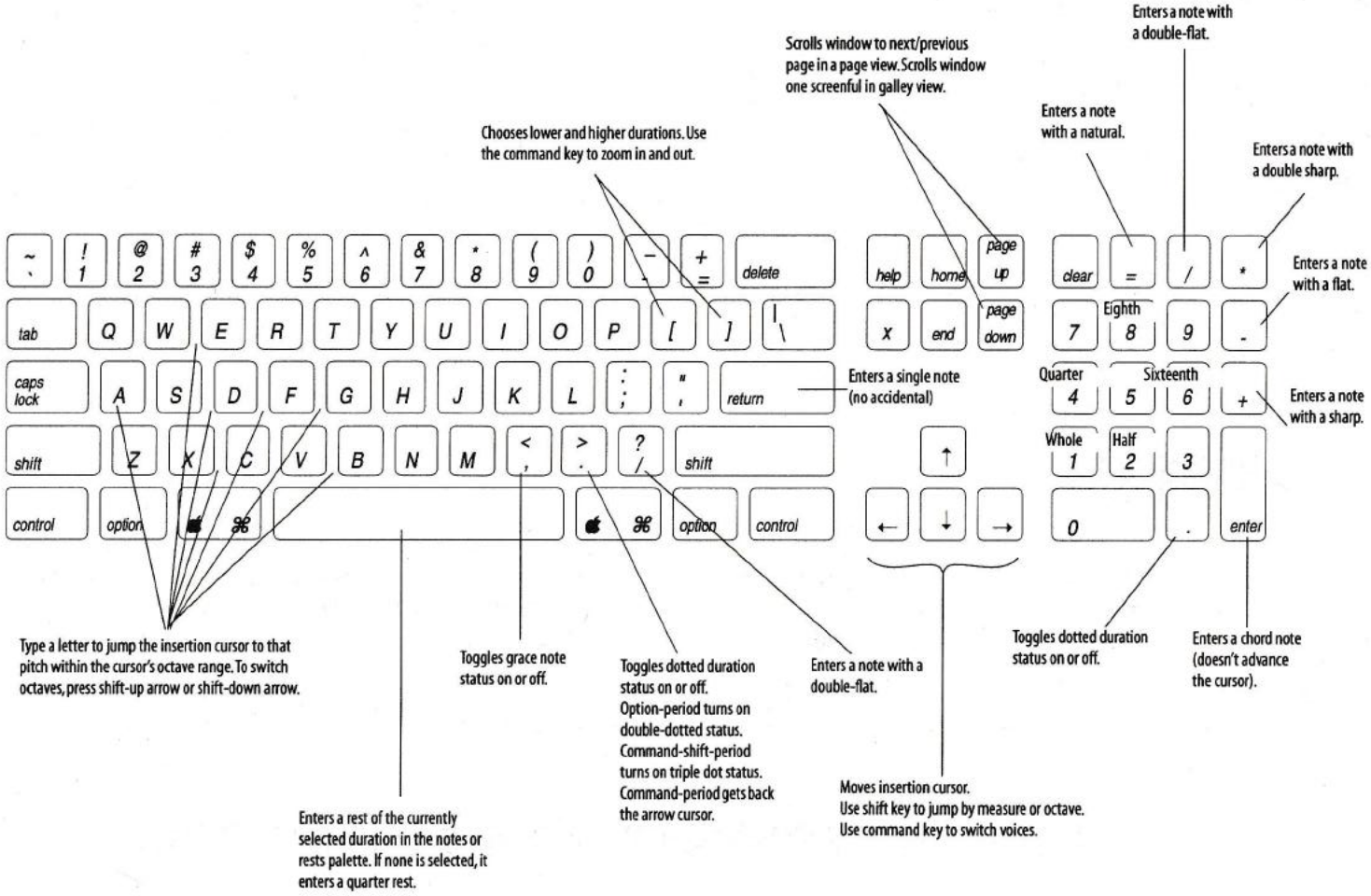
To add:	Do this:
A sharp	Press the plus (+) key on the keypad
A flat	Press the minus (-) key on the keypad
A double sharp	Press the asterisk (*) key on the keypad
A double flat	Press the slash key (/) on the keypad
A natural	Press the equal key (=) on the keypad

Summary of Mosaic key bindings

Below is a summary of the Mosaic keyboard bindings. See also Appendix C, "The Mosaic Keyboard".

command-period	To get back the arrow cursor after using a palette tool or after editing text
A, B, C, D, E, F, G	Jump the cursor to the typed pitch within the current cursor octave
space bar	Enter a rest of the currently selected duration in the notes palette
comma	Toggle grace note status on or off
period	Toggle dotted duration on or off
option-period	Turn on double-dot duration
command-option-period	Turn on triple-dot duration
arrow key (with nothing selected)	Move the cursor horizontally by one note or vertically by one space or line
control-up/down arrow	Jump the insertion cursor up/down one octave
shift left/right arrow	Move the cursor to the next or previous measure
command up/down arrow	Switch voices
equal sign (=) (keypad only)	Enter a note with a natural sign
minus (-) (keypad only)	Enter a note with a flat
plus (+) (keypad only)	Enter a note with a sharp
asterisk (*) (keypad only)	Enter a note with a double-sharp
slash (/) (keypad only)	Enter a note with a double flat
left/right bracket ([,])	Select a lower or higher note duration
delete	Delete the note to the left of the insertion cursor or any selected items
return	Enter a single note with no accidental
enter	Enter a note in a chord (doesn't advance the insertion cursor)
1	Select a whole note duration
2	Select a half note duration
4	Select a quarter note duration
6	Select a sixteenth note duration
8	Select an eighth note duration
page up/down (page view)	Scroll to previous/next page
page up/down (galley view)	Scroll the display up/down by one screenful
minus (-) (while insertion point is on top of a note or a note is selected)	Add a flat to the note (adds a courtesy accidental if already flat by key signature or previous note in measure)
plus (+) (while insertion point is on top of a note or a note is selected)	Add a sharp to the note (adds a courtesy accidental if already flat by key signature or previous note in measure)
asterisk (*) (while insertion point is on top of a note or a note is selected)	Add a double-sharp to the note (adds a courtesy accidental if already sharp by a previous note)
slash (/) (while insertion point is on top of a note or a note is selected)	Add a double-flat to the note (adds a courtesy accidental if already flat a previous note)

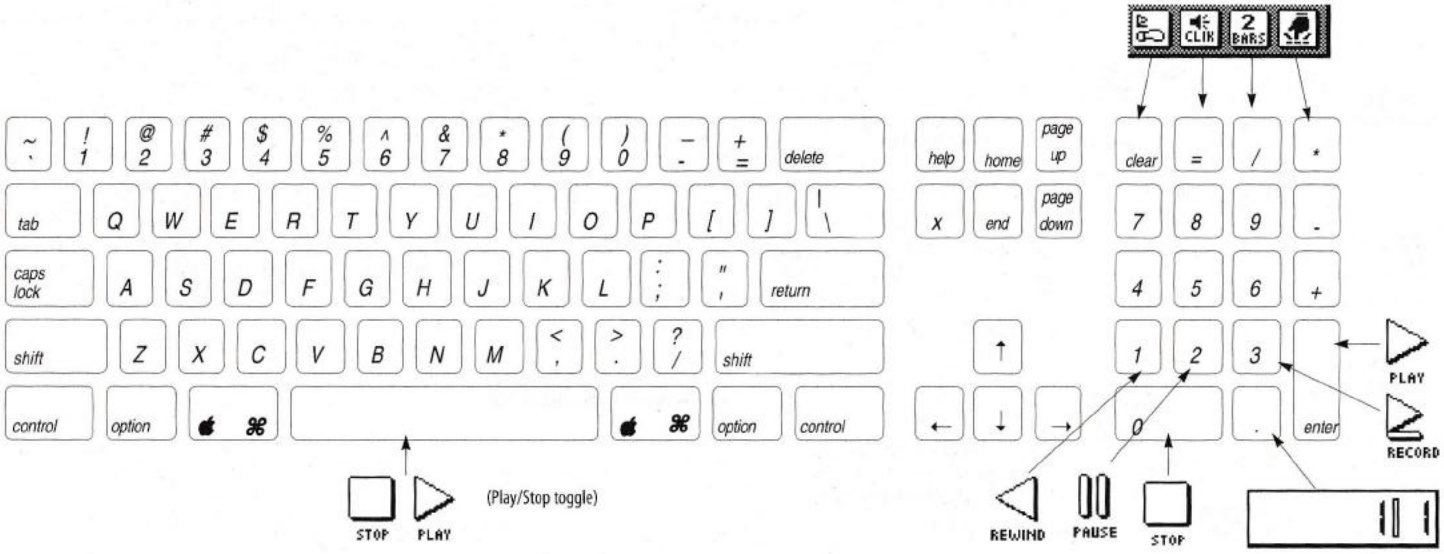
Appendix C The Mosaic Keyboard



The Controls Window Keyboard Assignments

These key bindings become active when the Controls window is open. When you close it, the key bindings revert to the standard ones. (See the previous page.)

Please note: When you have the Controls window open, the 1 and 2 keys on the keypad do not select a whole and half note duration. Instead, they trigger Rewind and Pause. If you would like to use these keys to select the whole and half note durations, close the Controls window. (Likewise, the space bar starts and stops playback rather than entering a rest. And the decimal key on the Macintosh keypad edits the counter instead of selecting a dotted duration.)



APPENDIX

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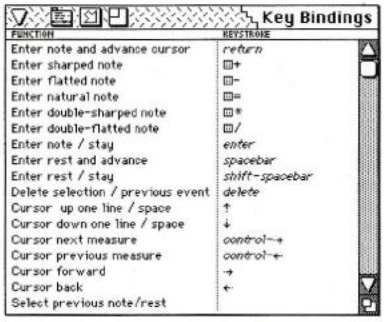
APPENDIX D Customizing Mosaic's Key Bindings

A *key binding* is the action that takes place when you press a key on the Macintosh keyboard. For example, if you type the number 4 in Mosaic, the quarter note duration becomes selected in the notes palette. In this case, the *keystroke* "4" is bound to the *function* "select quarter note tool".

Mosaic ships with an set of default key bindings for the entire Macintosh keyboard. They are listed in Appendix B, "Mosaic Keyboard Bindings", and a diagram is provided in Appendix C, "The Mosaic Keyboard".

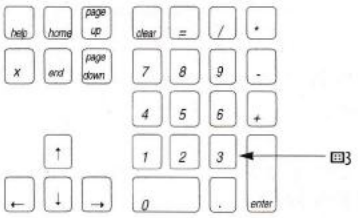
Mosaic lets you customize these key bindings in the Key Bindings window (Windows menu). Using this window, you can assign any function to any keystroke.



The following keystroke symbol refers to the Macintosh extended keypad:

⊞

For example, this symbol followed by the number "3" means the "3" key on the keypad.



Here is a summary of what you can do in the Key Bindings window and how to do it:

To do this:	Do this:
Assign a keystroke to a function or change an existing keystroke	Click in the keystroke column next to the function to pop-edit the keystroke. Type the desired key. Alternately, click the function to select it, press the tab key to pop-edit the keystroke, and type the desired keystroke.
Remove a keystroke assignment	Click the function to select it and choose Unbind from the mini-menu or press the delete key.
Assign a function to more than one key	Click the functions to select them and choose duplicate from the mini-menu. This makes a copy of the functions in the list. Give each duplicate its own unique keystroke assignment.
Switch keysets	Choose the desired keyset name from the mini-menu.
Name and save a key set that you have customized	Choose Save key set from the mini-menu. Give your customized set a unique name and click OK. Its name appears alphabetically in the mini-menu. To restore it at any time, just select its name from the mini-menu.
Delete a key set	Choose Delete Key Set from the mini-menu and select the keyset you want to delete from the hierarchical menu.
Display a symbol in the function list	Click the function name. If it is a palette symbol, the corresponding palette item highlights.

Find a palette symbol in the Key Bindings window list	Click the item in the palette
Restore the original Mosaic key set (or the original Composer, Encore, or Finale key set)	Choose its boldface name from the mini-menu. Boldface keysets cannot be modified or deleted so you always have an unaltered copy. Use the Save Keyset command to save changes under a different name.

☛ The names of functions are "hard wired"; they cannot be changed.

Using keysets from Professional Composer, Encore™, and Finale™

The Key Bindings window mini-menu provides alternative keysets for Professional Composer, Encore (2.51), and Finale (2.6.3). If you are familiar with these programs and prefer one of these alternative keysets, you can switch to it by choosing its name from the mini-menu. If you would like to preserve the current key set, save it first.

The Encore and Finale keysets do not exactly match the original programs. Similarities and differences are summarized below.

Encore 2.5.1 key bindings

Duration, play/stop, record, arrow accidentals, tuplet and dotted note keys are the same. Mosaic treats ties differently from Encore™, and the command-T keystroke for ties is already taken by Mosaic's Transpose function. All other command keys are not implemented, except for standard Macintosh commands such as Copy, Paste, New, Open, etc.

Finale 2.6.3 key bindings

These bindings emulate the speedy note entry tool key strokes. Keys that enable you to move around the score have been preserved as closely as possible as are duration keys, grace note select, add note to chord key, dot key, tie key and delete key. One major difference is the accidental keys (+/-): in Mosaic they insert a note with a sharp or a flat and the (*) inserts a note with a natural. To get a double flat or sharp press the control key before selecting +/-. As Mosaic does not need to change modes when entering notes, the zero (on the numeric keypad) key enters a note and advances the cursor. MIDI Step entry is very similar and should be easy to use if you are familiar with Finale™. One could also program Score, Staff and Note expression "Meta Tools" by assigning them to the number keys (above the letter keys) and choosing different modifier keys to choose which group you were selecting. For example, you could assign all the dynamic palette items to the Control key, all the articulations to the Option key, and ornaments to the Shift key.

Making a diagram of your customized key set

Using the techniques described earlier, you can assign any function to any key. Below is a keyboard diagram that you can fill in with your own key bindings for easy reference.

You may want to make a copy of this page and mark up the copy so that you always have a blank original to make copies from.

~ `
! 1
@ 2
# 3
$ 4
% 5
^ 6
& 7
* 8
(9
) 0
_ -
+ =
delete
tab
Q
W
E
R
T
Y
U
I
O
P
{ [
}]
| \
caps lock
A
S
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F
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H
J
K
L
: ;
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return
shift
Z
X
C
V
B
N
M
< ,
> .
? /
shift
control
option
option
control
help
home
page up
page down
x
end
clear
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/
*
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APPENDIX E References

The following books are recommended as sources of information about engraving music:

McGrain, Mark. *Music Notation* (Boston: Berklee College of Music, 1986).

Piston, Walter. *Orchestration* (New York: W. W. Norton & Company Inc., 1955).

Read, Gardiner. *Music Notation: A Manual of Modern Practice*, 2nd Edition (New York, New York: Taplinger Publishing Company, 1969).

Roemer, Clinton, *The Art of Music Copying* (Sherman Oaks: Roerick Music Co., 1985).

Ross, Ted. *The Art of Music Engraving and Processing* (Miami: Charles H. Hansen Music and Books, Inc., 1970).

APPENDIX F

Articulations

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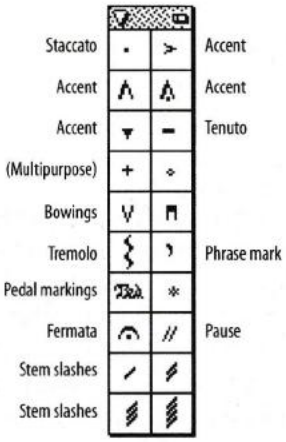
APPENDIX F Palette Quick Reference Guide

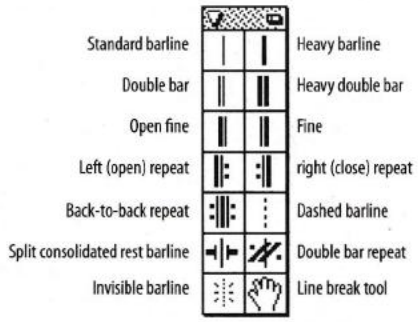
Articulations

The articulations palette items are note-specific. They attach to the note on which you enter them. To enter an articulation, select the desired symbol and click directly on top of or near the notehead. To enter the articulation on several notes at once, select the notes and command-click the desired palette articulation.



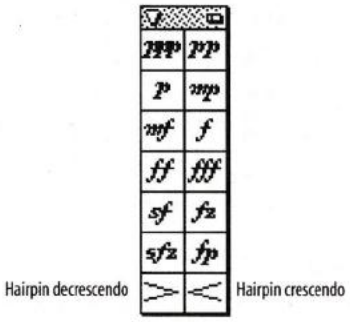
Barlines

Select the desired barline from the palette and click the barline in the view that you wish to change. Use the line break tool to drag measures to the next or previous staff system.



Dynamics

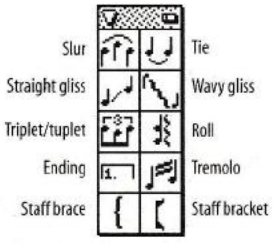
The dynamics palette items are note-specific (except for the crescendo and decrescendo hairpins, which are groupings). They attach to the note on which you enter them. To enter a dynamic, select the desired symbol and click directly on top of or near the notehead. To enter the dynamic on several notes at once, select the notes and command-click the desired palette articulation.



Groupings

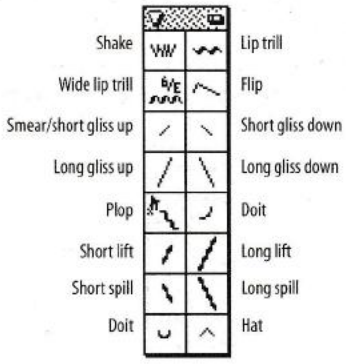
Enter groupings by clicking the desired item in the palette and dragging over the desired region of notes. To enter a staff brace or bracket, drag

vertically to the left of the staves in a page view. Double-click the triplet, ending, and tremolo palette items to configure them.



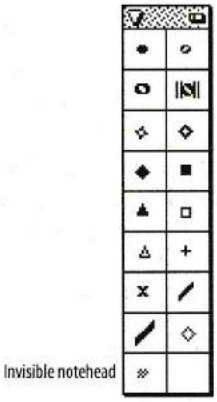
Jazz

The jazz symbols palette items are note-specific. They attach to the note on which you enter them. To enter a jazz symbol, select the desired symbol and click directly on top of or near the notehead. To enter the symbol on several notes at once, select the notes and command-click the desired palette symbol.



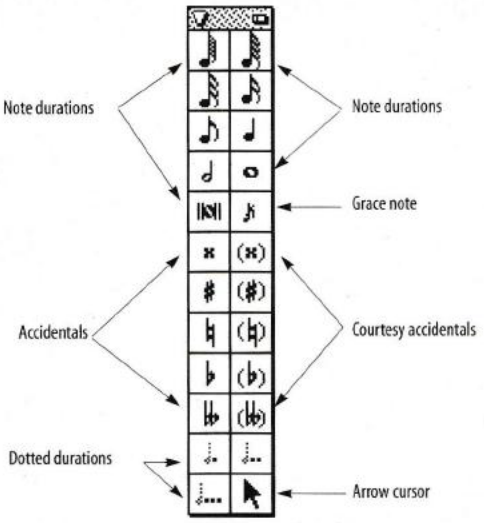
Noteheads

The noteheads in this palette can be applied to a single note a region of notes, or all notes in a voice. To change a single notehead, select the desired notehead from the palette and click the note. To change several noteheads, select them and command-click the desired notehead in the palette. To change all noteheads in a voice, double-click a note in the voice to select all notes and command-click the desired notehead in the palette.



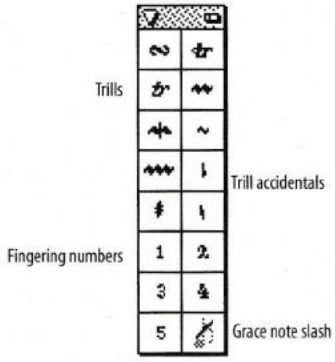
Notes

Click a note duration to select it for the next note to be inserted. Or, select the note duration by pressing the appropriate key on the Macintosh keyboard. When the duration is highlighted, either click the mouse on the staff at the desired location, or place the insertion cursor where you want and press the return key or the enter key to insert the note. The grace note turns the currently selected note duration into a grace note of the same duration. Enter accidentals and courtesy accidentals by clicking the accidental palette item and then clicking the note. Dotted durations turn the currently selected note duration into a single, double, or triple dot duration. The arrow cursor returns the cursor to the standard arrow cursor for selected, placing the insertion cursor, etc.



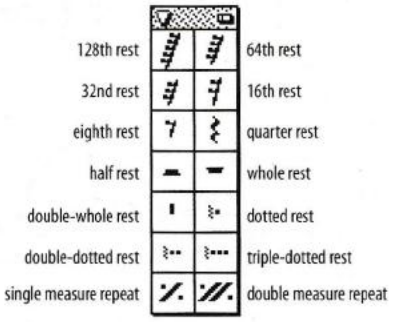
Ornaments

The ornaments palette items are note-specific. They attach to the note on which you enter them. To enter an ornament, select the desired symbol and click directly on top of or near the notehead. To enter the symbol on several notes at once, select the notes and command-click the desired palette symbol.



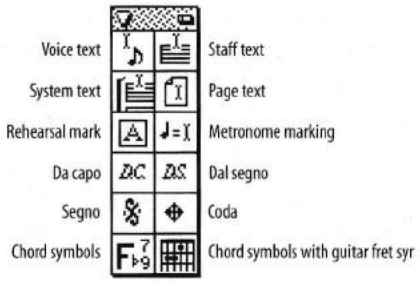
Rests

Enter items from the rests palette in the same manner as notes.



Text

To enter text, select the appropriate tool from the text palette and click or drag to insert a text box. Double-click each text palette item to open its default configuration dialog box, in which you can choose the default font, style, position, etc.



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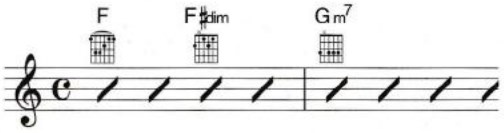
APPENDIX G Mosaic's FretBoard Font

FretBoard is a font developed by Mark of the Unicorn to provide Mosaic with the ability to automatically display guitar fingering diagrams along with chord symbols.



FretBoard ships with Mosaic. It is a standard font, and it is installed just like any other font such as Helvetica. FretBoard contains hundreds of fingering diagrams for every chord quality (major, minor, minor 7, minor 7 flat 5, etc.) and every root (A-G).

At some point, you may want to work with fret symbols without having to produce them using Mosaic's chord symbol tool in the Text palette. You can do so by entering them as standard text instead. Each fingering diagram has been assigned to a key on the Macintosh keyboard. The chart on the next page shows what key to press to get any chord fingering diagram in any key. Find the root across the top of the chart and the chord quality down the left-hand side. The appropriate key to type is where the column and row meet.

Since FretBoard is a font, you can insert FretBoard fingering diagrams using any one of Mosaic's text entry methods, including lyric text entry. Just select FretBoard from the Text menu, select a point size, refer to the chart on the next page, and then type the appropriate key.

☛ If you enter FretBoard symbols are text, they do not transpose when you transpose notes or change key. If you would like them to be transposable, enter them with the chord symbol tool in the Text palette.

We provide the following point sizes in the screen font: 20, 24, 32 and 40 point. At the 100% zoom level in a page view or galley view, these point sizes look best on the computer screen--and also when printed on an ImageWriter or other dot matrix printer. We also provide an Adobe Type 1 version of FretBoard (affectionately dubbed "FreBoa"), so that when you print FretBoard symbols on a laser printer, you'll get the same high-quality resolution as the rest of Mosaic's output.

FretBoard Key Map

	C	Db C#	D	Eb D#	E	F	Gb F#	G	Ab G#	A	Bb A#	B
major	C	V	D	R	E	F	T	G	Y	A	W	B
minor	sh-C	sh-V	sh-D	Sh-V	sh-E	sh-F	sh-T	sh-G	sh-Y	sh-A	sh-W	sh-B
aug	opt-C	opt-V	opt-D	opt-R	opt-E, E	opt-F	opt-T	opt-G	opt-Y	opt-A	opt-W	opt-B
dom 7	sh-opt-C	sh-opt-V	sh-opt-D	sh-opt-R	sh-opt-E	sh-opt-F	sh-opt-T	sh-opt-G	sh-opt-Y	sh-opt-A	sh-opt-W	sh-opt-B
maj 7	Sh-,	sh-period	sh-K	sh-O	sh-i	sh-L	sh-P	sh-;	sh-[	sh-H	sh-U	sh-/
min 7	,	period	K	O	i	L	P	;	[	H	U	/
dim 7	opt-,	opt-period	opt-K	opt-O	opt-i, i	opt-L	opt-P	opt-;	opt-[	opt-H	opt-U, U	opt-/
aug 7	sh-opt-,	sh-opt-period	sh-opt-K	sh-opt-O	sh-opt-i	sh-opt-L	sh-opt-P	sh-opt-;	sh-opt-[	sh-opt-H	sh-opt-U	sh-opt-/
maj 6	Z	X	S	opt-i, sh-E	J	M	]	apostrophe	\	Q	opt-U, A	N
dom 7 (9)	opt-Z	opt-X	opt-S	opt-` sh-E	opt-J	opt-M	opt-]	opt-apostrophe	opt-\	opt-Q	opt-N, A	opt-N, N
sus 4	opt-1	opt-2	opt-3	opt-4	opt-5	opt-6	opt-7	opt-8	opt-9	opt-zero	opt-hyphen	opt-equal
dom 7 (sus 4)	sh-opt-1	sh-opt-2	sh-opt-3	sh-opt-4	sh-opt-5	sh-opt-6	sh-opt-7	sh-opt-8	sh-opt-9	sh-opt-zero	sh-opt-hyphen	sh-opt-equal
min 6	sh-Z	sh-X	sh-S	opt-U, sh-Y	sh-J	sh-M	sh-]	sh-apostrophe	sh-\	sh-Q	opt-U, A	sh-N
add 2	sh-opt-Z	sh-opt-X	sh-opt-S	opt-U, sh-E	sh-opt-J	sh-opt-M	sh-opt-]	sh-opt-apostrophe	sh-opt-\	sh-opt-Q	opt-N, sh-A	sh-opt-N
min 7 (b5)	opt-U, Y	opt-U sh-zero	opt-`, i	opt-`, E	opt-U, E	opt-N, O	opt-`, O	opt-N, sh-N	opt-E, U	opt-`, sh-A	opt-i, A	opt-i, U
dom 7 (#9, b5)	opt-U, i	opt-U, O	opt-E, i	opt-E, sh-E	opt-i, E	opt-N, O	opt-E, O	opt-i, U	opt-U, sh-U	opt-`, A	opt-E, A	opt-`, U

sh = shift key, opt = option key. Note: many of these are two-key operations. For example, "opt-U, i" means to press and release opt-U and then afterwards press i. The FretBoard character is inserted after you press the second key.

A

B

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G

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INDEX

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INDEX

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X

Z

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1280 Massachusetts Ave.
Cambridge, MA 02138
617 576 2760