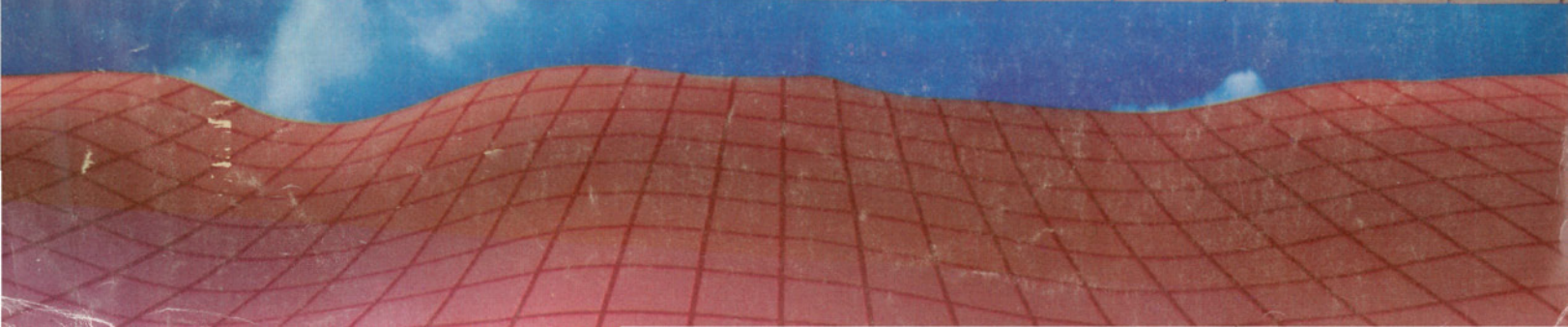


Record • Compose • Edit • Play

TANDY®

Music & Sound

A **DeskMate** Companion



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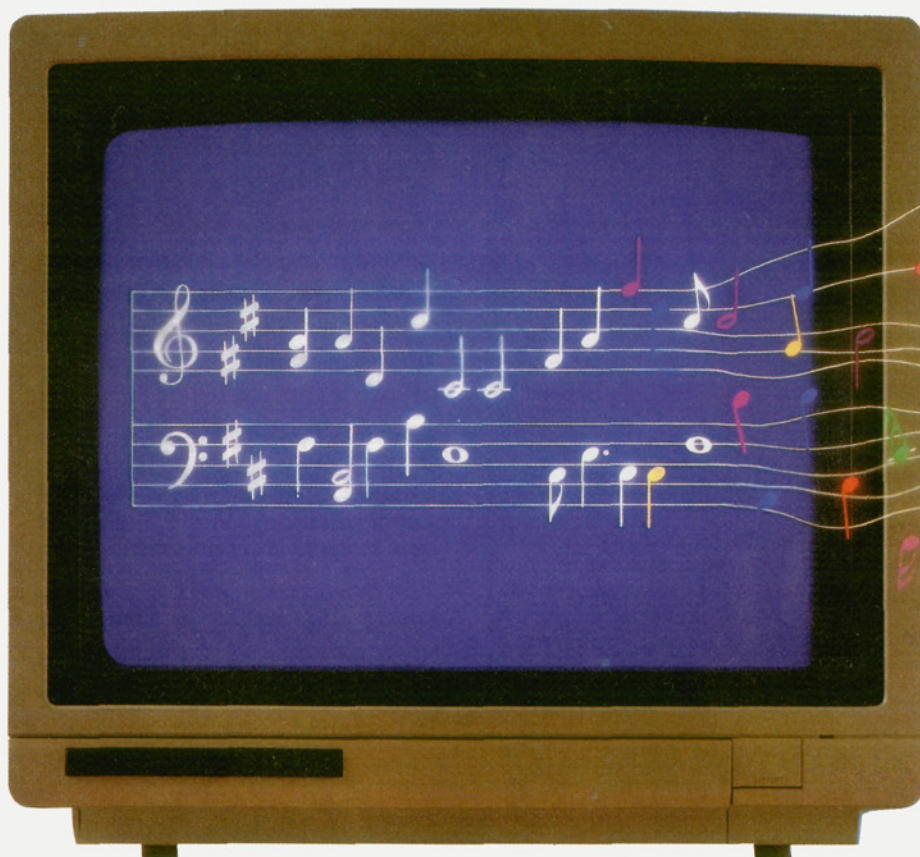
Music and Sound Manual:
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Music & Sound



Music and Sound introduce you to the exciting world of music composition and sound editing. With these bonus DeskMate applications, you can take full advantage of the special sound reproduction capabilities of your computer (or a computer that has sound generation capabilities). Music and Sound can be enjoyed separately or together.

With Music, you can play the sample music already stored for you, enter and play your favorites, or compose and play music of your own creation.

With Sound, you can record sounds using a microphone, and the computer stores these sounds. Then, you can edit this stored information to create traditional or imaginative instruments for use with Music. Or, you can edit and use the sound files already stored for you.

Whatever use you find most appealing, you'll benefit from the Music and Sound experience and the new world they furnish for your exploration.

Optional Equipment

To print sheet music using the Music application, you'll need a dot matrix or laser printer. Refer to your printer manual and the "Accessories" article in your *DeskMate Getting Started* magazine for information on how to set up a printer.

To record sounds using the Sound application, you'll need a microphone. Refer to your computer's installation and operation manual for information on how to connect a microphone.



Music

Now you have the opportunity to become an accomplished musician without years of toil and practice. Because DeskMate's Music application is so fun, no nagging is necessary to encourage you to practice.

With all of the necessary music notations used by professional musicians, the Music application has the sophistication you need to copy and compose traditional music manuscripts. You can even print your manuscripts using a compatible printer. Music furnishes you the freedom to experiment with unique sounds and rhythm patterns.

If you have questions about Music, press **F1** to use DeskMate's extensive online help. Or, you can run the Music tutorial.

You can access Music from the desktop or from within another DeskMate application. Refer to the Techniques Box in this article for further information.

Attention Diskette Users

If you are using diskettes to run DeskMate, you might be asked to insert another diskette. Insert the new diskette and press ENTER.

When you enter Music, a blank piece of music paper appears on the screen. The editing box appears in the center of the music paper.

From classical to country and western, from rock and roll to jazz — with Music, you can compose and play your favorite tunes. This article shows you some of the creative ways you can use Music.

Remember to use the Save option on the File Menu often. This ensures that additions and changes to your compositions will be stored in the computer's memory for future reference.





Editing box — Indicates the current location on the grand staff. The box is outlined with dotted lines in the color of the current voice.

Voice/Instrument box — Displays the three voices you can use with Music, the instrument assigned to each voice, and the dynamic level (loudness or softness) of each voice.

♩ = 100 — Shows the current tempo (how fast or slow the music goes).

Music work area — Contains two connected staves known as the *grand staff*, identified by a treble clef (top) and bass clef (bottom).

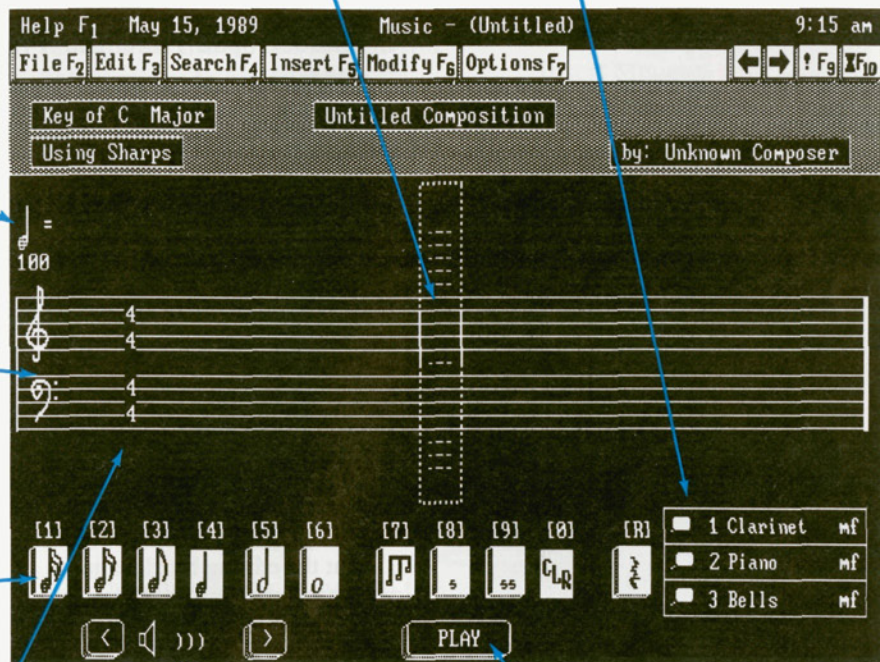
Control area — Contains buttons that let you choose note (and rest) values and insert rests.

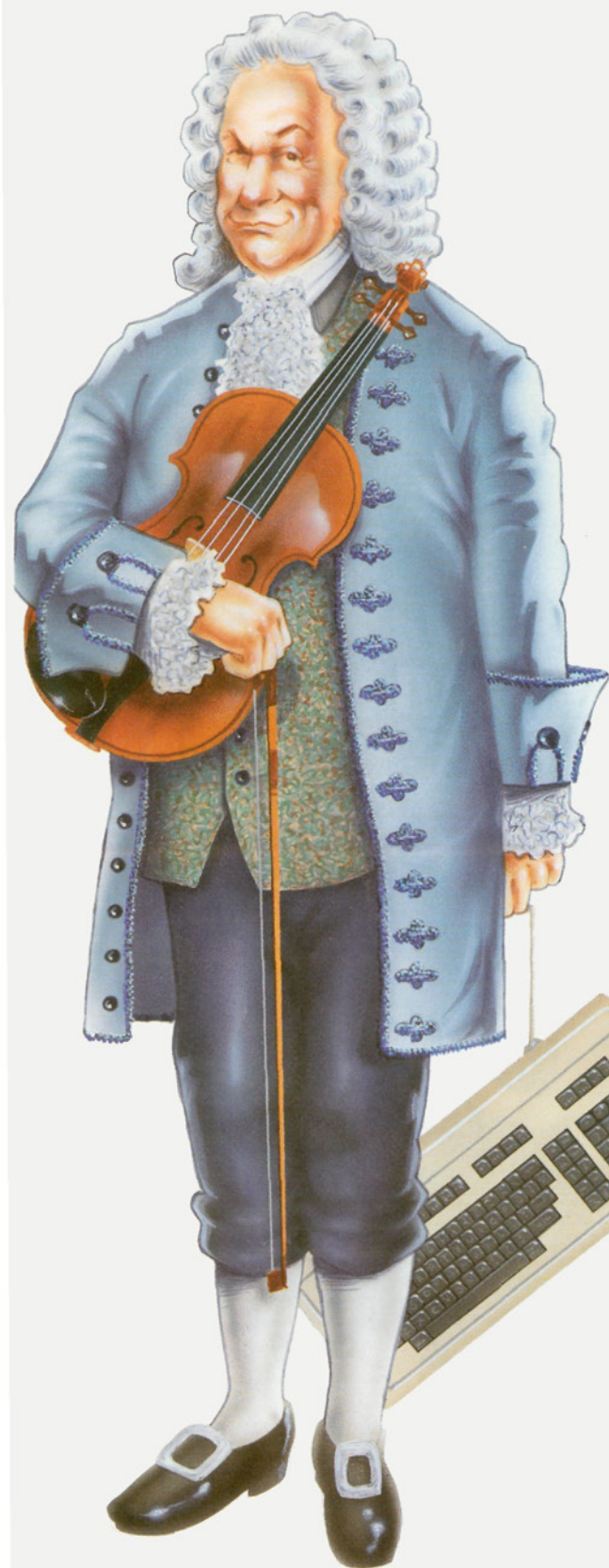
Indicates the *time signature*. The top number shows the number of beats to a *measure*. The bottom number indicates that a quarter note gets one beat. The *key signature* is also indicated. If you have recurring *accidentals* (flats (♭) or sharps (♯)) in your composition, you can enter them into the key signature. With a key signature, the accidental is automatically assigned to the specified notes, throughout the composition.

Volume indicator — Indicates the overall playing volume.

Play — Lets you play your music.

It is easy to use accidentals in your compositions. Simply choose which type of accidental you want to use, sharp or flat, and press SHIFT and the letter for the note to which you want to assign the accidental.





Playing a Bach Tune

Let's play some music that has already been composed for you. First, you need to select a tune to play.

1. Select **Open** from the **File** Menu.

A dialog box appears, listing all the files you can open.

2. Highlight **BACH.SNG** and press **ENTER**.

The notes and musical notations for your Bach piece appear on the screen.

3. Select the **PLAY** button, or press **ALT-P**, to play the Bach tune.

When you select the **PLAY** button, Music plays the composition starting at the editing box location.

Isn't it impressive that such complex music can be played using DeskMate's Music application? You'll be composing and playing your own music in no time.

Composing Music

You're almost ready to try your hand at music composition.

First, try entering an excerpt from a piece that someone else composed. The old standard "Twinkle, Twinkle Little Star" is a simple one to start with.

1. Select **New** from the **File** Menu.

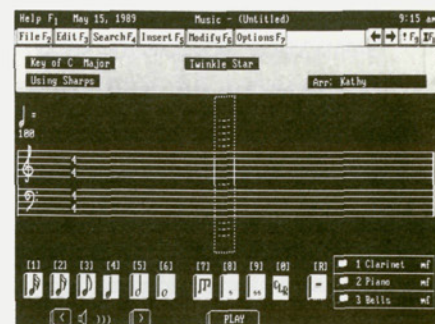
An empty music file appears.

2. Select **Composer** from the **Options** Menu.

A dialog box appears.

3. Someone else composed this piece, but you're "arranging" it, so, at the **Composer:** prompt, type **Arr:** and your name.

4. Press **ENTER**.



5. Select **Title** from the **Options** Menu.

A dialog box appears.

6. At the **Title:** prompt, type **Twinkle Star**.

7. Press **ENTER**.

Now, let's enter some notes for "Twinkle Star" using the keyboard. (4 is for quarter notes; 5 is for half notes.) See the Music Terms box in this article for more information about notes and note values.

1. Type:

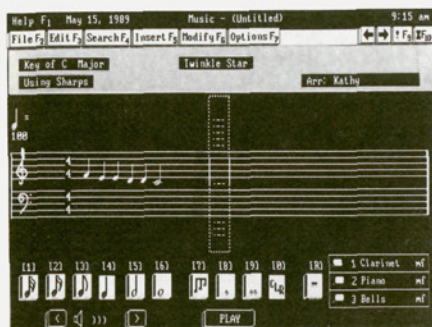
4ccggaa5g4ffeedd5c

*You can change the range (octave) in which notes are entered by pressing **ALT ↑** or **ALT ↓**. A blinking note appears to indicate the octave in which notes are entered. If you never change the octave, all the notes appear in the middle range of the grand staff.*

The notes sound as you enter them.

To turn off the sound while you are entering notes, press **CTRL-S**, or select **Sound** during entry from the **Options** Menu.

*Selecting the **Sound** during entry option while it is checked will remove the check mark and turn off the option.*



2. Press **HOME**.

The editing box moves to the beginning of the composition.

3. Press **ALT-P**.

To stop play at any time, press any key except F11 or F12.

Now let's enter the rest of the composition.

1. Press **END**.

The editing box moves to the end of the composition.

2. Type:

```
4ggffee5d4ggffee5d
4ccgga5g4ffeedd5c
```

See how much fun Music can be? You can make the music more complex by adding voices, repeats, instruments, and using other creative Music methods. DeskMate's on-line help (F1) provides detailed information about all of these tasks.

Saving Your First Composition

After you have entered a song, and perhaps invested valuable time doing it, you'll want to save your new composition on disk.

1. Select **Save as** from the **File** Menu.

A dialog box appears.

2. Type a filename. For this example, type **star**.

3. Press **ENTER**.

Your **star.sng** file (composition) is stored for future use and the file remains on the screen so that you can continue to work with it.

Inserting Bar Lines and Score Markers

You can make your compositions more professional by inserting bar lines and score markers into your compositions. Adding bar lines and score markers also makes it easy for you to search your compositions for a particular location when you are editing your music.

1. Press **HOME**.

The editing box moves to the beginning of the composition.

2. Press **→** four times.
3. Select **Bar line** from the **Insert** Menu, or press **CTRL-B**.

A bar line appears on the grand staff to indicate a measure. A number appears above the bar line to indicate the measure number.

Let's use a short cut to enter the bar lines for the rest of the composition.

1. Select **Select all** from the **Edit** Menu.

The entire composition is highlighted and the editing box moves to the end of the composition.

2. Select **Adjust bar lines** from the **Modify** Menu.

The bar lines are automatically inserted throughout the composition.

Now, let's enter a couple of score markers in "Twinkle Star."

1. Move the editing box to bar line 4 (indicating the start of measure 5).

2. Select **Score marker** from the **Insert** Menu.

A dialog box appears.

3. At the **Score marker:** prompt, type **a**.

4. Press **ENTER**.

Score marker **A** appears above the grand staff.

5. Insert another score marker (**B**) at bar line 8.

You're almost ready to add the finishing touches. Before you add those polishing elements to your composition, press **HOME**, and then press **ALT-P** to play the whole composition.

Your composition is really beginning to sound familiar. Notice, however, that the sound of the piece hasn't really changed since the first playing.

Adding the Finishing Touches

Let's add some dynamics and change the instrument sound to make your composition sound more interesting. First, we need to locate score marker **A** so that you can change the instrument.

1. Select **Score marker** from the **Search** Menu.

2. At the **Score marker:** prompt, type **a**.

3. Press **ENTER**.

The editing box moves to score marker **A**.



Now let's change the instrument sound in "Twinkle Star."

1. Select **Instrument** from the **Insert** Menu.

A dialog box appears, listing the available instruments.

If you create additional instrument files with the Sound application, you can have as many as 32 instrument files.

2. Choose an instrument (other than the first instrument in the list) that you would like to use.
3. Press **ENTER**.

The number for the instrument you chose appears on the grand staff. The instrument name and number also appear in the voice/instrument box.

Before you change the dynamic level in the composition, you need to locate bar line 8.

1. Select **Bar line** from the **Search** Menu.
2. At the **Bar line:** prompt, type 8.
3. Press **ENTER**.

The editing box moves to bar line 8 (score marker B).

Now for the final touch, let's change the dynamic level (the volume of the music).

1. Select **Volume** from the **Insert** Menu.

A dialog box appears, listing the various dynamic levels you can use, from very soft (pp) to very loud (ff).

2. Choose **ff**.
3. Press **ENTER**.

The new dynamic level appears on the grand staff and in the voice/instrument box.

To hear the finished composition, move the editing box to the beginning of the piece by pressing **HOME**, and then pressing **ALT-P**.

See how creative you can be with Music? Now that you have some of the basics down, you can experiment and create more complex compositions. Remember, you can use the on-line help to explore some of the other options and techniques available in Music.

For longer compositions that might have a large section of notes repeated, you can add repeats and alternate endings. Be sure to use DeskMate's on-line help if you need more information about how to insert repeats or alternate endings into your music.

Printing Your Composition

If you want to see your music on paper, you can use a dot matrix or laser printer to print "Twinkle Star."

Before you print, be sure that you have set up your printer properly and that paper is loaded. (Refer to your printer manual.) Also, be sure you have used the Printer option to tell DeskMate the type of printer you are using. See the "Accessories" article for instructions on using the Printer option.

1. Select **Print** from the **File** Menu.
- A dialog box appears.
2. At the **Print to:** prompt, choose the **Printer** button.
 3. Press **ENTER**.

To return to the desktop, simply select **Exit** from the **File** Menu, or press **ESC**. You will be asked if you want to save changes (if you have made changes).

Accelerator Key Functions

ALT-↑	Move the octave indicator up one octave
ALT-↓	Move the octave indicator down one octave
ALT-P	Play the composition currently on the screen
CTRL-B	Insert a bar line at the editing box location
CTRL-D	Display a single voice/Display all voices
CTRL-INSERT	Copy a highlighted section of music
CTRL-S	Activate or deactivate the Sound during entry option
CTRL-U	Toggle between using sharps and flats in a composition
CTRL-X	Play a piece of music continuously
DELETE	Clear a highlighted section of music
INSERT	Toggle between Insert and Overtone modes
SHIFT-DELETE	Cut a highlighted section of music
SHIFT-INSERT	Insert a copied or cut section of music



Techniques Box

Opening a DeskMate Application

- If the application (or associated file) appears on the desktop, press **TAB** to highlight the application, and then press **ENTER**.

or

- If the application is not on the desktop, press **F2** to pull down the File Menu. Then, press **↓** until you highlight Run and press **ENTER**.

A dialog box appears, and you can type the application name at the **Program:** prompt, and if you wish, the name of the file you want to open at the **Data file:** prompt. Press **ENTER** to select OK and open the application or file.

Selecting Menu Options

- Press a function key (**F2-F10**).
- Press **↓** to highlight the desired option.
- Press **ENTER**.

Note: Sometimes you must highlight information on the screen before you can use a specific option (for example, Copy on the Edit Menu).

Moving Around a Dialog Box

- TAB** moves the cursor to the next field. (**SHIFT-TAB** moves the cursor backward.)
- Arrow keys move the cursor within a group of buttons or check boxes.
- Space bar chooses an underlined button or check box. (Space bar also unchecks a check box.)
- ENTER** automatically selects OK.
- ESC** automatically selects CANCEL.

Correcting Typing Errors

BACKSPACE deletes the character to the left of the editing box. **DELETE** deletes the character in the editing box.

Note: If the Insert option on the Edit Menu is unchecked, Music is in Overtyping mode and you can type over the note in the editing box. If the Insert option is checked, Music is in Insert mode. When you enter a note in Insert mode, the note appears to the left of the editing box as usual, but the note in the editing box remains.

Entering Notes

Keyboard Users:

- Press the letter corresponding to the name of the note (a-g).
 - Press **SHIFT** and the name of the note to enter an accidental.
- or
- Press **↑** or **↓** to move the blinking note in the editing box to another position on the staff. Press the space bar to enter the note.
 - Press **SHIFT** and the space bar to enter an accidental.

Mouse Users:

- Move the pointer to the editing box. The pointer changes to the current note value.
- Point to the desired position on the staff, and click the button. The program inserts the note at the specified place (using the current note value).
- Press **SHIFT** and click the mouse button to enter an accidental.

Moving the Editing Box

Keyboard Users:

Key:

←

→

CTRL- ←

CTRL- →

PAGE UP

PAGE DOWN

HOME

END

Moves the editing box:

One position to the left.

One position to the right.

To the first note or notation in the current bar. (If the editing box is already on the first note or notation, it moves to the beginning of the previous bar.)

To the first note or notation in the next bar.

To the previous full screen of music.

To the next full screen of music.

To the beginning of the composition.

To the end of the composition (or the end of the current voice if the voice does not continue to the end of the composition).

Mouse Users:

- Click on any note on the staff to move the box to that specific note.
- Click on one of the scrolling arrows on the menu bar to move the box in the appropriate direction.

Highlighting Music

To highlight single, consecutive notations:

- Press **SHIFT- →**.
- Press **SHIFT- ←**.

To highlight consecutive screens of music:

- Press **SHIFT-PG UP**.
- Press **SHIFT-PG DN**.

To highlight to the end of the composition:

- Press **SHIFT-END**.

To highlight to the beginning of the composition:

- Press **SHIFT-HOME**.

Displaying a Single Voice

Select **Display single voice** from the Options Menu.

Displaying All Voices

Select **Display all voices** from the Options Menu.

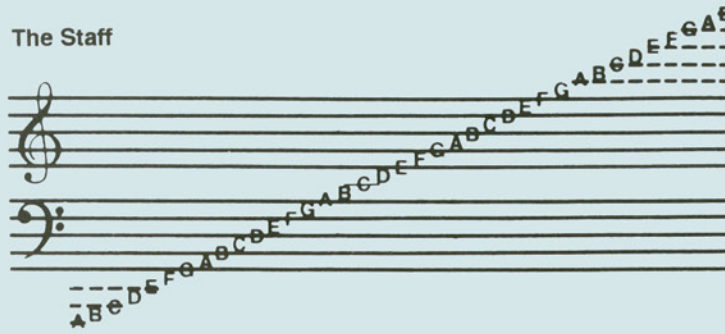
Selecting an Entire Voice

Select **Select all** from the Edit Menu.



Music Terms

The Staff



The Names of the Notes and Rests

Name of Note:

Musical Notation:

Rest:

Whole Note



Half Note



Quarter Note



Eighth Note



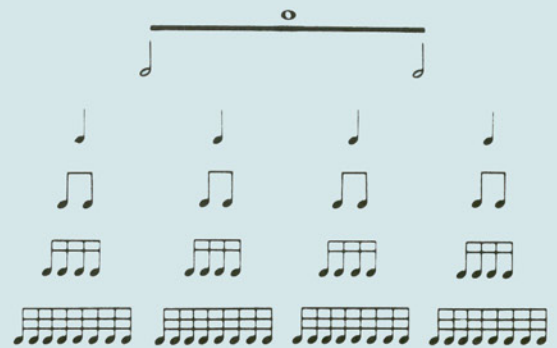
Sixteenth Note



Thirty-second Note



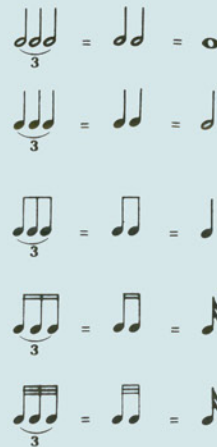
The Relationships Between the Different Note Values



Dotted Notes

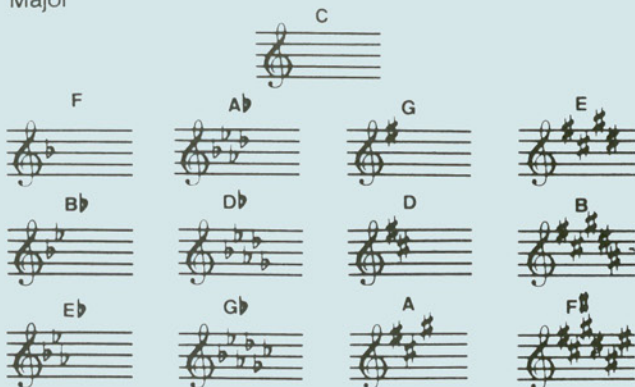


Triplets

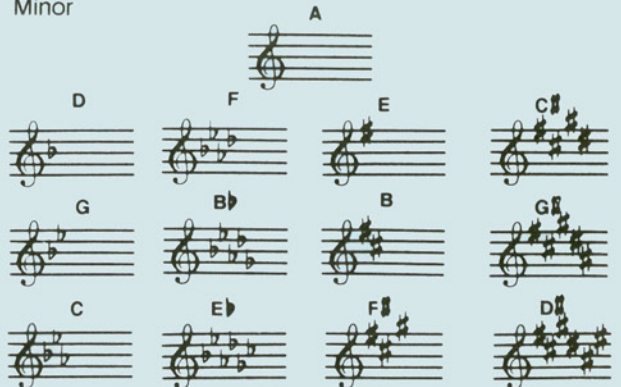


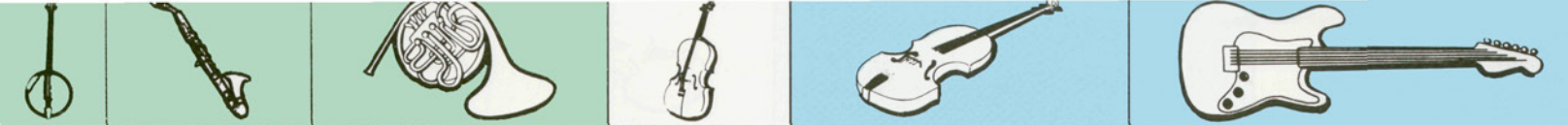
Key Signatures

Major



Minor





Sound

You can become a sound editor without investing thousands of dollars in a soundproof, acoustically perfect sound studio.

Sound is a useful sound editing tool that lets you create more musical instrument files to enhance Music. Or, you might also want to record some sound effects to spice up your latest video tape recording.

With Sound, you can record a sound using a microphone, and the recorded sound is stored and digitized (transformed into numbers the computer can interpret). Then, you can edit the sound for use as a sound effect or a new instrument for Music. You can even cut a "piece" of sound out of one sound file and paste it into another.

If you have questions about Sound, press **F1** to use DeskMate's extensive online help. Or, you can run the Sound tutorial.

You can access Sound from the desktop or from within another DeskMate application. Refer to the Techniques Box in this article for further information.

Attention Diskette Users

If you are using diskettes to run DeskMate, you might be asked to insert another diskette. Insert the new diskette and press ENTER.

When you enter Sound, a blank sound editing box appears. If you have a microphone (optional), this is where you could begin recording a sound. For now though, let's open an existing Sound file and take a closer look at the Sound screen.





Opening a Sound File

The procedure for opening a Sound file is just like opening any other file in DeskMate.

1. Select open from the File Menu.

A dialog box appears, listing all the files you can open.

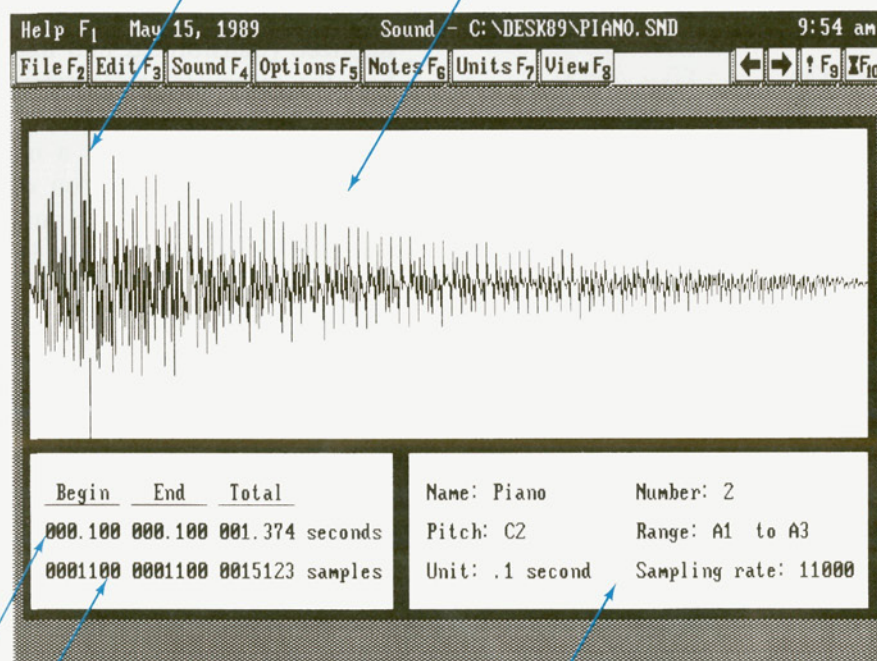
2. Press ↓ until you highlight PIANO.SND.
3. Press ENTER.

The sound graph and other information fills the screen.

Editing line — Shows you the current position on the sound graph and lets you choose a location to begin and end the editing process.

Note: When you first open a file, the editing line is flush left with the beginning of the sound graph and cannot be seen.

Sound editing box — Shows the recorded sound graph.



Seconds line — Shows the beginning, ending, and total number of seconds in relation to the editing line location or a highlighted section of the sound graph. The seconds' total is the number of seconds the sound was recorded (the duration of the sound).

Samples line — Shows the beginning, ending, and total number of samples in relation to the editing line location or a highlighted section of the sound graph. The samples' total is the number of samples recorded in the number of seconds specified.

Name and Number — Lets you identify your instrument sound file by a unique name and number. The Music application uses the number to identify the instrument on the grand staff.

Pitch — Shows the pitch for the current instrument sound file's note.

Range — Shows the range of the current instrument sound file's note.

Unit — Shows the currently selected unit measurement that determines the distance the editing line moves when you press the → and ← arrow keys.

Sampling rate — Shows the current sampling rate number (the number of sound samples (units) recorded per second of sound).



Playing a Sound

Before you begin editing a sound, play the piano.snd instrument sound file already displayed on the screen. To play the sound, select **Play entire** from the Sound Menu, or press **CTRL-E**.

Remember that your computer must have sound generation capabilities in order for you to hear a sound when it is played.

Now you know what a digitized sound “sounds” like. Notice that the editing line moves from left to right across the sound graph as the sound plays.

Two Types of Sound Files

Sound has sound files and instrument sound files. A **sound file** is simply a single sound graph. An **instrument sound file**, on the other hand, can have as many as 16 different notes. Each note is the equivalent of one sound graph.

Experimenting with Sound Editing

Let's begin a sound editing session. You can use some of the existing sound files to do some **real** sound editing.

The following sound edits are designed to be exaggerated so that you can see and hear the obvious changes. When you start doing your own sound editing, you might want to use these and other options on a smaller scale so that you can refine the sound as much as possible.

Amplifying a Sound

When you amplify a sound, it does not mean that you increase the volume of the sound. Amplifying a sound simply exaggerates the vertical lines in the sound graph. Let's see (and hear) what happens when you amplify the piano.snd file.

1. Select **Select all** from the Edit Menu, or press **CTRL-A**, to highlight the entire sound graph.
2. Select **Amplify** from the Sound Menu.

A dialog box appears.

3. Type 2 at the Amplification: prompt.

To deamplify the sound to its original state, type 0.5 at the Amplification: prompt.

4. Press **ENTER**.

The vertical sound waves are lengthened in the editing box.

5. Press **CTRL-E** to play the amplified sound.

You might want to experiment with the Amplify option by reducing this amplification.

Next, let's see how you can add silence in the middle of a sound.

Replacing Sound with Silence

You can be creative with your sound editing by entering a section of silence into a sound. Let's experiment with the piano.snd file.

1. Press **→** to clear the highlight.
2. Highlight a portion of the middle of the sound graph.

*To highlight a portion of the middle of the sound graph, press **←** a few times to move the editing line somewhere in the middle of the sound graph. Then, press **SHIFT-→** two or three times to highlight a portion of the sound graph.*

3. Select **Silence** from the Sound Menu.

A dialog box appears to verify that you want to silence this section of sound.

4. Press **ENTER**.

The highlighted portion of the sound graph changes to a straight line.

5. Press **CTRL-E** to play the edited sound graph.

Now that you are beginning to see some of the things you can do with Sound, let's experiment with reversing a sound.

Reversing a Sound Graph

Another creative way to edit a sound is to reverse all or part of the sound graph. Using the same piano.snd file, let's reverse the file and see what happens.

1. Press **CTRL-A** to highlight the entire sound graph.
2. Select **Backward** from the Sound Menu.

The picture of the sound graph reverses.

3. Press **CTRL-E** to play the reversed sound graph.

See how creative you can be with Sound? Now that you understand some of the basics of sound editing, you might want to experiment with some of the other editing options available. Remember to use DeskMate's on-line help (**F1**) if you need some assistance with a particular option.

If you have a microphone connected to your computer and you would like to try your hand at recording a sound, see “Recording a Sound.” If you don't want to try recording right now, be sure to see “Preview of Other Sound Options” in this article.

Recording a Sound

Before you record, be sure you have the microphone plugged into the microphone jack on your computer.

You can record using instruments, voice, or any other special sound effect. For now, let's use your voice to make a recording.



Before you record, remove any sound graph currently on the screen. To do this, select **New** from the File Menu, and then choose **NO** at the Save Changes? prompt.

Be sure the Instrument file option on the File Menu is NOT checked. If the Instrument file option is checked, select the option from the File Menu to uncheck it.

1. Select **Sampling rate** from the Options Menu.

A dialog box appears, listing the available sampling rates.

2. Choose the desired rate.
3. Press **ENTER**.
4. Select **Record** from the Sound Menu.

A dialog box appears. You are asked to enter the number of seconds you want to record the sound. Sound automatically informs you of the number of seconds you can record based on the current memory space available.

5. Type the number of seconds you want to record the sound.
6. Turn on your microphone.
7. Press **ENTER**.

A dialog box appears letting you know that you can press any key to stop recording.

8. When the dialog box appears on the screen, say "Sound editing is fun."

After you record the sound, the sound graph appears in the sound editing box.

Now you might want to explore sound editing by experimenting with the Cut, Copy, and Paste options on the Edit Menu.

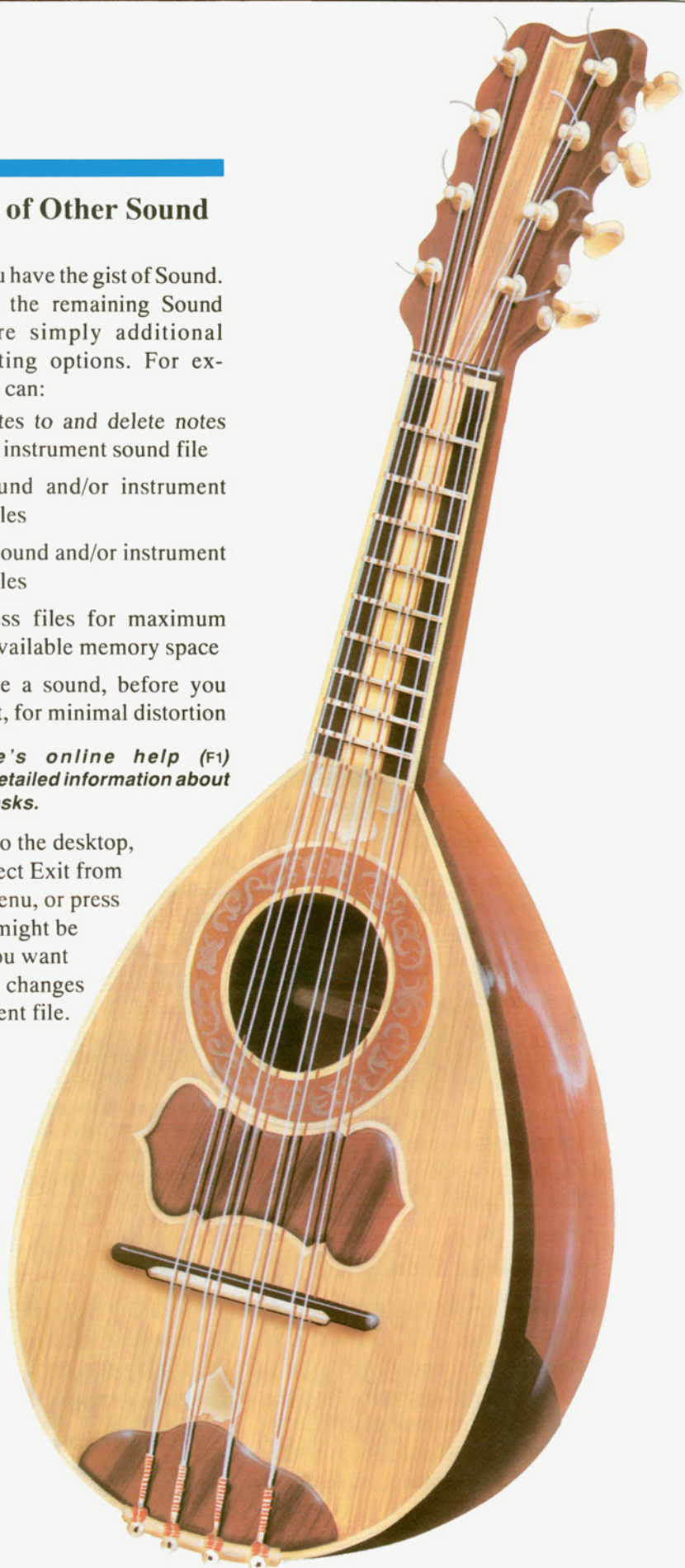
Preview of Other Sound Options

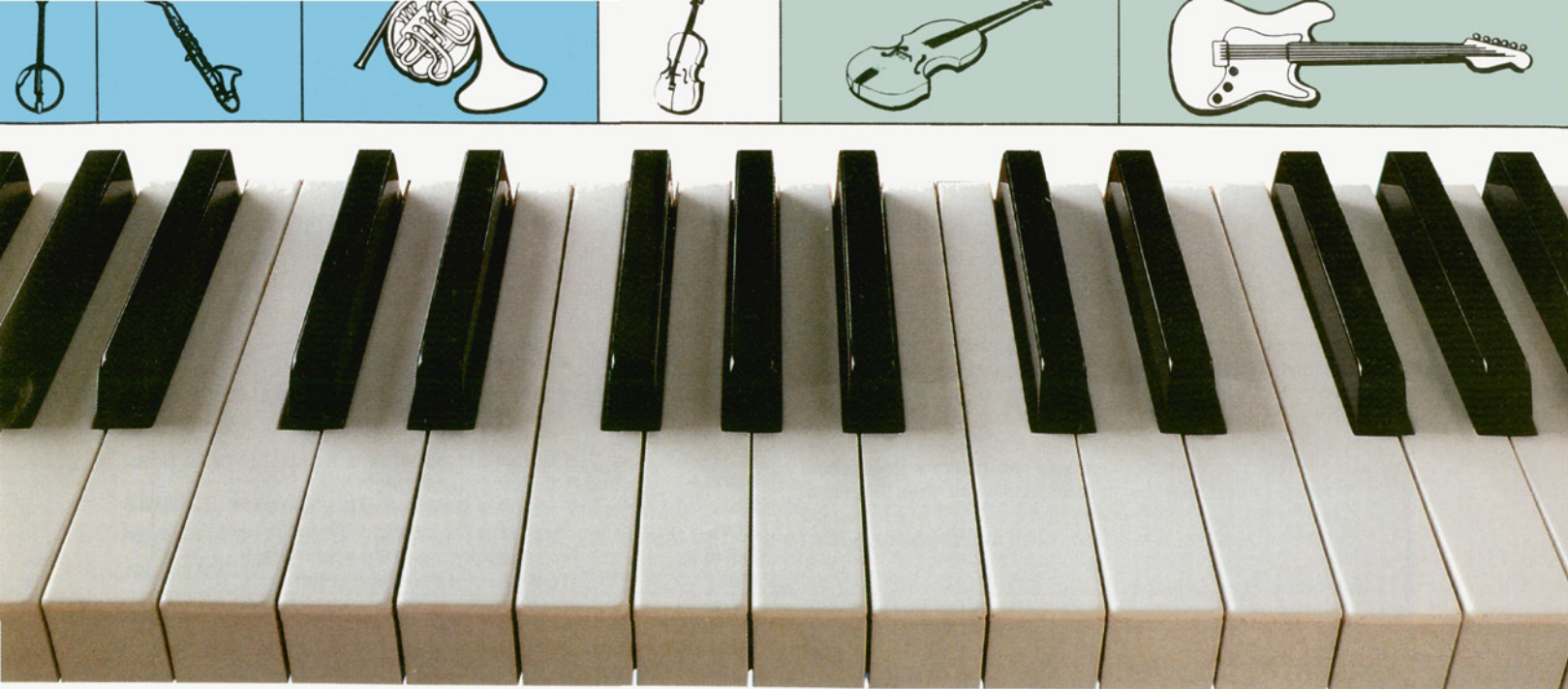
By now you have the gist of Sound. Several of the remaining Sound options are simply additional sound editing options. For example, you can:

- Add notes to and delete notes from an instrument sound file
- Mix sound and/or instrument sound files
- Merge sound and/or instrument sound files
- Compress files for maximum use of available memory space
- Calibrate a sound, before you record it, for minimal distortion

DeskMate's online help (F1) provides detailed information about all these tasks.

To return to the desktop, simply select **Exit** from the File Menu, or press **ESC**. You might be asked if you want to save the changes to the current file.





Making Instrument Files

You can make an instrument file by:

- Recording a sound at 11,000 samples per second
- Editing the sound
- Assigning a pitch to the sound to make a note
- Assigning a range to the note
- Adding up to 16 notes in one instrument file
- Naming, numbering, and saving the file

Accelerator Key Functions

Key sequence:

Function:

CTRL-C	Calibrate the sound graph
CTRL-F1	Move the editing line 1 second
CTRL-F2	Move the editing line .1 second
CTRL-F3	Move the editing line .01 second
CTRL-F4	Move the editing line .001 second
CTRL-F5	Move the editing line 1 sample
CTRL-F6	Display the sound graph with eight pixels between samples (x 8)
CTRL-F7	Display the sound graph with two pixels between samples (x 2)
CTRL-F8	Display one sound graph with one sample of sound on each screen pixel (x 1)
CTRL-F9	Display a sound graph with every fourth sample between pixels (x 1/4)
CTRL-F10	Display a sound graph with every sixteenth sample between pixels (x 1/16)
CTRL-INSERT	Copy a highlighted section of the sound graph and place it on the clipboard
CTRL-O	Show the other end of the sound graph
CTRL-R	Record
CTRL-S	Shrink the sound graph to its original size
CTRL-T	Test the instrument
CTRL-V	Change the volume
SHIFT-DELETE	Cut and move a highlighted section of the sound graph to the clipboard



Techniques Box

Opening a DeskMate Application

- If the application (or associated file) appears on the desktop, press **TAB** to highlight the application, and then press **ENTER**.
- If the application is not on the desktop, press **F2** to pull down the File Menu. Then press **↓** until you highlight Run and press **ENTER**.

A dialog box appears, and you can type the application name at the **Program:** prompt, and if you wish, the name of the file you want to open at the **Data file:** prompt. Press **ENTER** to select OK and open the application or file.

Selecting Menu Options

1. Press a function key (**F2-F10**).
2. Press **↓** to highlight the desired option.
3. Press **ENTER**.

Note: Sometimes you must highlight information on the screen before you can use a specific option (for example, **Copy** on the Edit Menu).

Moving Around a Dialog Box

- **TAB** moves the cursor to the next field. (**SHIFT-TAB** moves the cursor backward.)
- Arrow keys move the cursor within a group of buttons or check boxes.
- Space bar chooses an underlined button or check box. (Space bar also unchecks a check box.)
- **ENTER** automatically selects OK.
- **ESC** automatically selects CANCEL.

Viewing a Sound Graph

Use the options on the View Menu to stretch and compress the view of a sound graph for more accurate and detailed sound editing. The largest view is x8; the smallest view is x1/16.

Moving the Editing Line

Keyboard Users:

Key:	Moves the line:
←	One unit to the left
→	One unit to the right
ALT- ←	One sample to the left
ALT- →	One sample to the right
CTRL- ←	Five times the selected unit to the left
CTRL- →	Five times the selected unit to the right
HOME	To the beginning of the sound graph
END	To the end of the sound graph

Mouse Users:

Click at any place in the sound graph to move the line to that specific location.

Changing the Unit Measurement

Use the options on the Units Menu to change the distance the editing line moves when you press the **→** and **←** arrow keys for more accurate and detailed sound editing. The largest unit is 1 second; the smallest unit is 1 sample.

Playing a Sound File Using Options on the Sound Menu

To play a highlighted section of a sound graph:

- Select **Play** from the Sound Menu (or press **CTRL-P**)

To play an entire sound graph:

- Select **Play entire** from the Sound Menu (or press **CTRL-E**)

To play the clipboard contents:

- Select **Play clipboard** from the Sound Menu

Highlighting a Sound Graph

Keyboard Users:

To highlight a section of the sound graph, position the editing line, and then:

- Press **SHIFT-→**
- Press **SHIFT-←**

To highlight to the end of the sound graph:

- Press **SHIFT-END**

To highlight to the beginning of the sound graph:

- Press **SHIFT-HOME**

Mouse Users:

To highlight a section of the sound graph:

- Hold down the mouse button and move the editing line to the left or right. Then, release the mouse button.

Mouse and Keyboard Combined:

To highlight a section between the editing line and the position of the mouse pointer:

- Press **SHIFT** and click the mouse button

Other Highlighting Options Available on the Edit Menu:

To extend the beginning of a highlighted section of the sound graph:

- Select **Extend begin** from the Edit Menu (or press **CTRL-H**)

To reduce the beginning of a highlighted section of the sound graph:

- Select **Reduce begin** from the Edit Menu (or press **CTRL-J**)

To extend the end of a highlighted section of the sound graph:

- Select **Extend end** from the Edit Menu (or press **CTRL-L**)

To reduce the end of a highlighted section of the sound graph:

- Select **Reduce end** from the Edit Menu (or press **CTRL-K**)

To highlight an entire sound graph:

- Select **Select all** from the Edit Menu (or press **CTRL-A**)

To highlight a sustained section of a sound graph:

- Select **Select sustain** from the Edit Menu

Glossary

accidental. Used to raise (sharp) or lower (flat) a note's pitch level one-half step. To raise a pitch that is flatted, a natural (\natural) is used. A natural is also used to lower a pitch that is sharped.

amplify. When a sound graph is amplified, the vertical lines in the graph are lengthened. When a sound is amplified, the actual volume of the sound is not increased.

attenuate. When a sound is amplified to a value less than zero, the sound is attenuated. An attenuated sound has shorter vertical sound waves. When a sound is attenuated, the actual volume of the sound is not decreased.

calibrate. When a sound is calibrated, it can be recorded with minimal distortion. A calibrated sound reproduces a sound that is closer to the original sound's quality.

dotted notes. These are notes (or rests) that carry a dot or double dot to increase the length of the note. If you dot a note, its length increases by $1/2$ ($\text{quarter note} = \text{quarter note} + \text{eighth note}$). If you double dot a note, its length increases by $3/4$ ($\text{quarter note} = \text{quarter note} + \text{eighth note} + \text{eighth note}$).

dynamic level. The volume of a section of music indicated by dynamic markings: pp, p, mp, mf, f, and ff.

grand staff. Two connected staves identified by a treble clef (treble clef) and a bass clef (bass clef).

instrument sound file. An instrument sound file is made up of up to 16 different notes. Each note in an instrument sound file is a separate sound and has its own sound graph.

key signature. If you have recurring *accidentals* (flats or sharps) in your composition, you can enter them together at the beginning of a composition (the key signature). With a key signature, the accidental is automatically assigned to the specified notes throughout the composition. The key signature can be changed in a composition.

measure (bar). The notations that fall between two bar lines. The length of the measure (how many beats in a measure) is determined by the *time signature*. Sometimes a measure is called a bar.

note. Each note in an instrument sound file has its own *pitch* and *range*. Having a variety of notes in an instrument sound file lets you expand the range of notes the file can play when it is used as an instrument in the Music application.

octave. The range in which notes are entered on the grand staff. There are six octave ranges available in the Music and Sound applications.

pitch. Each note that is recorded in the Sound application has a pitch assigned to it. There are 63 pitch possibilities between the ranges of A1 (lowest) and B6 (highest). Having multiple pitches with multiple *ranges* gives the Music application an assortment of pitches to choose from when a note is entered.

pixel. A computer screen is made of many tiny picture elements (dots) called pixels.



range. The Sound application is capable of playing the full spectrum of notes in all ranges, using one *pitch* as a starting point. An instrument sound file sounds less distorted when there is a larger variety of pitches and ranges.

slur. A \smile symbol used to connect two (or more) notes of different pitches so that they sound without a break between them.

sound file. A sound file is made up of one sound graph. This sound is not required to have a note assignment.

sustain. A portion of a sound that is repeated when a note is held is called the sustain loop, or sustain.

tempo. The speed of a composition. The number in the tempo symbol ($\text{♩} = 100$, for example) indicates the number of beats per minute. The tempo marking appears at the beginning of a composition and can be changed at any time during the piece.

tie. A $-$ symbol used to connect two (or more) notes that are the same pitch to create one note that equals the combined value of all the tied notes.

time signature. The top number in a time signature indicates the number of beats to a measure. The bottom number indicates what type of note (which note value) gets one beat.

triplet. A three-note pattern, the duration of which is equal to the note value of two-thirds of the triplet ($\text{♩} \text{♩} \text{♩} = \text{♩}$).

unit measurement. The distance the editing line moves in the Sound application.



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