Music Painter™

An exciting new way to enjoy, compose, and play music.

Music Painter is dedicated to Csaba Serdy, 1971-1984.

TABLE OF CONTENTS

INTRODUCTION

Welcome to The Music Painter. This program is for people of all ages who enjoy music. With The Music Painter, you can listen to music written by others or compose your own music. You don't need to know music to use The Music Painter, but if you do have formal musical training you'll be able to put it to very good use.

The Music Painter got its name because all the musical notes look like paintbrush strokes on paper. Each note is a different color. When you compose your own music, you "paint" notes with your joystick. When you play music, these "painted" notes move across the screen like the open spaces of a player piano scroll.

How to Use This Manual

Getting Started shows you how to start The Music Painter program and gets you acquainted with the screen. You also learn how to move the cursor through the menu.

Playing Music shows you how to take a song out of The Music Painter's file cabinet and play it. This is the listening part of The Music Painter. You learn how to use the menu options to vary the sound, tempo, number of voices, and so on.

Painting Your Own Music shows you how to compose music. You use the menu options as well as several new tools that help make composition easy.

Saving Your Music shows you how to store your compositions in permanent disk files.

Editing Your Music, you learn how to insert, delete, and copy music while you're composing.

Glossary of Musical Terms defines a few basic musical concepts. These concepts may help you when you compose or transcribe music.

Equipment You Need to Run The Music Painter

To run The Music Painter, you need:

An ATARI Computer (400™, 800™, XL™/XE™ line) with 48K
1 disk drive

or:

A Commodore® 64™ computer
A VIC™-1541 Disk Drive.

You also need:

TV or monitor (color recommended)
Joystick
1 blank formatted disk (optional)

GETTING STARTED

If you have an ATARI Computer, follow these steps:

(1) Plug joystick into Port 1.

(2) Turn on your TV or monitor and disk drive.

(3) Put The Music Painter program disk into the disk drive with the side labelled "ATARI version" face up.

(4) Turn on your computer. Program will automatically load and run.

If you have a Commodore 64 Computer, follow these steps:

(1) Plug joystick into Port 1.

(2) Turn on your TV or monitor and disk drive.

(3) Put The Music Painter program disk into the disk drive with the side labelled "Commodore version".

(4) Turn on your computer. Type:

LOAD "*",8,1

and press [Return]. Then type:

RUN

and press [Return].
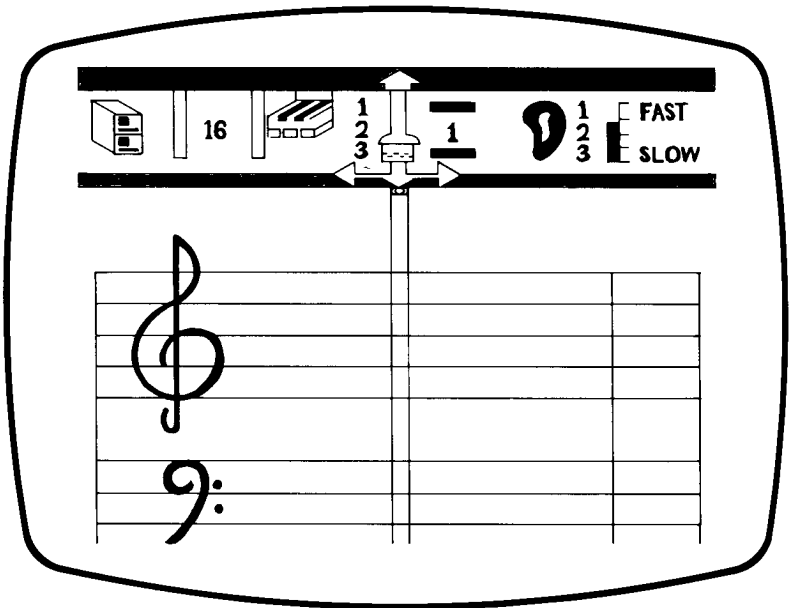
After the title screen, this is the first screen you'll see. Notice the row of pictures across the top. Each picture lets you change one aspect of your music or perform one task. Together, these pictures make up The Music Painter menu. Everything you do in the program begins from this menu.

Below the menu you'll see what looks like music paper or sheet music. All the music appears here—the tunes stored in the program and the songs you will write.

Cursor Movement

A paintbrush appears in the center of the menu. Above and below it are two pink arrows. This is where you begin. If you do not see these arrows, push the joystick handle up (toward the word "TOP") until the arrows appear.

You use your joystick to move through The Music Painter. Move the joystick left and right. Notice how the pink arrows move across the pictures in the menu. Each picture reprsents one menu option. To select an option, move the arrows until they point to the picture you want. From now on, we'll call these arrows your cursor.

To change an option, place the cursor on a picture and press the joystick button. The arrows turn brown. (If you have a Commodore 64, the arrows turn orange.) Then move the joystick up or down.

Now you're ready to play music. In the remainder of this section, you'll select a song, play it, and try out each listening option.

PLAYING MUSIC
The Music Directory

Begin with the cursor pointing to the PAINTBRUSH. Move the cursor to the left until it can go no further. It should point to the FILE CABINET. Push the joystick button. Now you see the MUSIC DIRECTORY.

The MUSIC DIRECTORY holds all the songs in The Music Painter. So far, only songs written by others appear here. Note that some files in the directory are empty. When you write your own songs, they'll be stored in the empty files.

Let's start by playing "Ain't Misbehavin'" by Fats Waller. Pull the joystick toward you to move the arrow down the list of songs. Stop at MISBEHAV. Press the joystick button. The arrow jumps to the bottom of the screen, next to LOAD. USING MISBEHAV appears next to it.

Press the joystick button. "Ain't Misbehavin'" loads into your computer's memory. Move the arrow to PAINT and press the joystick button again. You're back at the original screen—but now several notes are "painted" on the sheet music.

Playing The Music

Your cursor is now at the PAINTBRUSH. Hold down the button and push up once on the joystick. (Be sure to let go of the joystick. Continue to hold down the button.) The PAINTBRUSH disappears and you see the PLAY FORWARDS picture—an arrow pointing to the right and a musical note.

Now release the button. Hear it play? Watch the colored notes scroll by.

To stop the music, just press the joystick button. The music stops and the PAINTBRUSH appears. To resume playing, repeat the steps to PLAY FORWARD.

Want to start from the beginning? Go to the PAINTBRUSH, hold down the button, and push the joystick up twice. PLAY BACKWARD appears.

Release the button and see what "Ain't Misbehavin'" played backward sounds like.

The PAINTBRUSH option has other features you'll use when you paint your own music. We will discuss them later in this manual. For now, practice loading and playing other songs. Then load "Ain't Misbehavin'" again and we'll show you the other menu options.

Measure

This option lets you adjust the space between the vertical lines, or bars, on your sheet music.

Start at the PAINTBRUSH. Move the cursor three pictures to the left. Stop when it points to the MEASURE option (just to the right of the FILE CABINET). Hold down the joystick button and push up or down on the stick.

As the measure number changes, watch the bar on the sheet music move to change the length of the measure. Measures keep track of the time, or rhythm, in a given song. As the measure lengthens, it includes more beats, or notes of a given length. See the "Glossary of Musical Terms" for more information about measures.

Instrument

Move the cursor two pictures to the left of the PAINTBRUSH. Stop when the cursor points to the INSTRUMENT option. Now hold down the joystick button and move the stick up and down. You will see four instruments: piano, flute, drums, and violin. You can use any or all of these instruments in your original compositions and in the songs already on the disk.

To change an instrument, you must also use the VOICE option.

Voice

Move the cursor one picture to the left of the PAINTBRUSH. Stop when the cursor points to the VOICE option (the column of numbers, 1,2,3).

Number 1 is lit in bright pink. (If you have a Commodore 64, it is white.) Numbers 2 and 3 are green. Now look at the sheet music. One line of notes is also highlighted in bright colors. A song can have up to three lines of notes. When you play the song, all three lines play together. Each line of notes is called a voice.

Try selecting another voice—press the button on your joystick, then push the stick down to highlight the second line of notes. Notice that the second voice is now shown in color.

INSTRUMENT and VOICE work together—the instrument that appears alongside the highlighted Number 1 will play the highlighted voice.

Try using different instruments with "Ain't Misbehavin'." If a piano doesn't already show, move the cursor to INSTRUMENT and press the joystick button while you move the joystick until a piano appears

alongside the highlighted Number 1. Move the cursor to PLAY FORWARD and play a few measures. Stop! Play backwards, then return to INSTRUMENT. Change the instrument until the drum appears. Play forward again. Hear the difference?

Now change instruments for the second voice. Go back to the VOICE option. Move the joystick until Number 2 turns pink (white for Commodore 64 owners). Change the instrument. Do the same for Number 3.

Only one number in the VOICE option is highlighted at a given time. Only that corresponding voice in the sheet music is colored. Don't worry. As soon as you begin to play, all notes will take their colors and all the instruments will play.

The EAR option, described later in this section, lets you play a single voice at a time.

Page

The PAGE option lies just to the right of the PAINTBRUSH. When you play a song, the music on the screen scrolls by as if it were a single continuous sheet. Actually, The Music Painter divides the music into segments about two-thirds the width of your TV Screen.

Look at the PAGE option while the music plays forward. You'll see its number increase. PAGE helps you to keep track of where you are, especially when you're painting music.

You can use PAGE as a FAST FORWARD or FAST REVERSE. Move the cursor to PAGE. Hold down the joystick button and push the stick up. The PAGE number increases. The sheet music quickly responds!

To go to the end of the song, hold down the joystick button and move the stick to the right. Now hold down the joystick button and move the stick to the left. You go back to the start of the song!

Ear

Move the cursor two pictures to the right of the PAINTBRUSH. Stop when the cursor points to the EAR option. EAR is closely related to VOICE and INSTRUMENT. The numbers 1, 2, and 3 correspond to voices 1, 2, and 3 in the music.

EAR lets you hear a single voice at a time or any combination of the three voices. You can even turn off all three voices!

Hold down the joystick button and move the stick up and down. The highlighted number or numbers are the ones you'll hear when you PLAY FORWARD.

Tempo

Sheet music often calls for "allegro," which means fast and lively, or "andante," which means smooth and flowing. The TEMPO option lets you change the tempo, or speed, of your music just as you do when you play a traditional instrument.

Move the cursor to the right until it cannot go further. Hold down the joystick button and move the stick up and down. Like a thermometer, the TEMPO goes up toward FAST and down toward SLOW. Change the tempo of "Ain't Misbehavin'" to SLOW. Now PLAY FORWARD. Not quite what Fats Waller had in mind, is it?!

PAINTING YOUR OWN MUSIC

Now you can start "painting" your own music. Even if you haven't perfected all the menu options, you can begin this next exciting step. Keep practicing! That's what any music teacher would tell you.

The following section describes the tools you can use to "paint" music. The compositions will be your very own.

Before You Start

Before you start painting music, you need to be ready to save your composition on a blank, formatted disk. (You'll learn how to do that in the chapter, Saving Your Music.) If you've already formatted a disk, skip to "Starting Your Composition", below. If you haven't formatted a disk, follow these steps:

Remove The Music Painter Program Disk from your disk drive.

See your ATARI or Commodore Computer manual and follow the instructions to format a blank disk.

NEVER FORMAT THE MUSIC PAINTER PROGRAM DISK. YOU WILL LOSE EVERYTHING ON IT!

When the disk is formatted, remove it from your disk drive and insert The Music Painter Program Disk. Next, load The Music Painter. Now you're ready to start composing.

Starting Your Composition

Begin with a clean piece of sheet music. Do not load an existing tune. If a song is already loaded in memory, press the [Reset] key. (If you have a Commodore 64, hold down the [Restore] key and press RUN/STOP.) The Music Painter screen will appear with no music displayed.

Using The Cursor to Paint Music

Your cursor should be on the PAINTBRUSH. Pull the joystick down without pressing the joystick button. The cursor becomes a small open rectangle.

The cursor moves up and down in a vertical window that lies on the musical staff. The staff is the set of horizontal lines and spaces on which you write your notes.

Each line or space holds a note. Move the joystick up or down again. In the menu, directly above the PAINTBRUSH, you'll see the note for the line or space on which the cursor rests. Sharps and flats as well as whole notes will appear. (See the "Glossary of Musical Terms" for a definition of sharps and flats.)

Now press the joystick button. Voila! A colored brush stroke appears at the cursor location. At the same time, The Music Painter plays a note. Each time you move the cursor up or down in that same vertical column and press the joystick button, a new note replaces the old one.

Each note in a scale has its own color. (See the Glossary of Musical Terms for a definition of a scale.) Every "C," for example, is yellow.

To paint the next note, push the joystick to the right. Then move it up or down to the desired line or space. Press the joystick button. To make a longer note, hold down the button while you move the joystick to the right.

Erasing Notes

As you paint your music, you may want to make a note shorter, break one note into several, or delete a note completely.

Let's try erasing a note. Move the cursor to the top of the vertical window. Place the cursor over the box with the X in it. (It lies just below the horizontal blue line at the bottom of the menu.) Press the joystick button. The Music Painter erases the note that lies within the window.

Using The Menu Options

Measure

When you compose music, you can change the MEASURE option just as you did when you listened to "Ain't Misbehaving.'" This option controls the length of each measure. The bars marking the ends of the measures help you to concentrate on one small piece of music at a time. (See the Glossary of Musical Terms for a definition of measure.)

Instrument and Voice

You can use all three voices when you paint music. The first line of notes you paint will be Voice 1. (Look at the VOICE option in the menu. Number 1 is highlighted.)

Voice 1 can appear anywhere on your sheet music. In your first compositions, you may want Voice 1 to be the top line of notes, the highest in pitch and the one that carries the melody.

After you finish painting a line in Voice 1, highlight Number 2 in the VOICE option. This activates Voice 2. Now start painting Voice 2.

Hear and see what happens? Voice 1 plays along with Voice 2. This lets you hear your harmony—how well the notes sound together. Also notice that when you started painting Voice 2, Voice 1 turned gray. All the notes assume their colors when you PLAY FORWARD from the beginning.

After you finish painting Voice 2, try changing the instruments for Voices 1 and 2. Then PLAY FORWARD again. Then paint Voice 3 and experiment with the instruments for all three voices.

Page

Use the PAGE option to move quickly through your music.

Ear

You may not want to hear Voices 1 and 2 as you compose Voice 3. Just move your cursor to the EAR option and turn off Numbers 1 and 2.

When you're ready to hear all three voices together, go back to EAR and highlight all three numbers.

Tempo

The TEMPO option lets you alter the speed at which your composition will play. Are you in a mood to play it "prestissimo" (very fast) or "largo" (very slow)?

Manual Play

Sometimes you'll want to paint a few notes and play them over to hear what they sound like. You may change the notes many times before you're satisfied. This can get tedious if you have to go up to the PAINTBRUSH and PLAY FORWARD each time you want to hear the passage again.

The MANUAL PLAY feature can help. It plays your music starting from wherever your cursor is.

Assume you are in the middle of a song. Push the joystick up until the cursor is on the horizontal blue line at the bottom of the menu. Hold down the joystick button and push right or left on the stick. The music will play forward or backward.

Unlike PLAY FORWARD, which displays all the notes in color, MANUAL PLAY colors only the voice you're currently painting. The other voices are gray. Don't worry. You'll still hear all three voices, just as you do when you paint notes.

(Remember that the EAR option controls which voices you hear when you play music. If you want to hear the voice you're painting by itself, highlight only that number in EAR.)

Transcribing Music

You may decide to paint music you find in music books. You can certainly do this, but pay attention to the musical notations in the book. The notes will not look like strokes of paint. You must transcribe the notes properly if The Music Painter is to play the music the way it was written. (See the "Glossary of Musical Terms" for a definition of note.) Some practice, experience, and study will help you here.

SAVING YOUR MUSIC

What does your music sound like so far? Don't worry. Most folks don't make it to Carnegie Hall on their first try! But you may want to save what you've created.

Here's how. While your music is displayed on the screen, move the cursor to the PAINTBRUSH. Then move the cursor left until it points to the FILE CABINET. Press the joystick button. When the MUSIC DIRECTORY appears, move the arrow to a slot labeled "empty."

Press the joystick button. A "›" prompt appears. Type in a name for your file.

Before you go further, take out your blank, formatted disk.

Next, remove The Music Painter Program Disk from the disk drive.

Insert your formatted disk. Press [**Return**].

Your file name appears highlighted in the lower part of the screen. The arrow points to SAVE. The following message appears at the bottom of the screen:

   PRESS BUTTON IF OK — STICK TO CANCEL

If you don't want to save the composition, move the joystick in any direction. The SAVE command is cancelled. To start over, move the arrow to an empty slot, press the joystick button, and type your file name again.

If you want to save the composition, press the joystick button. The disk drive whirs.

Your composition is safely stored on the disk.

If you try to save a song and the screen displays a DISK FULL message, or if you own a Commodore 64 and you see a DISK ERROR message, it means your disk is full. Insert a new blank, formatted disk in your disk drive and SAVE the file again.

EDITING YOUR MUSIC

Suppose you want to change a compostion you created. In addition to the editing tools you learned in "Painting Your Own Music", you can use these options:

- INSERT SPACE
- DELETE SPACE
- COPY BLOCK

Inserting Spaces

Here's how you can put blank spaces between notes. Place the cursor on the PAINTBRUSH. Hold down the joystick button and pull the stick down once. The INSERT SPACE option appears. (If you go too far, push the joystick up while holding down the button.)

Release the joystick button. Pull down on the joystick until the pink arrows disappear and the open rectangular cursor appears. Place the cursor on the horizontal blue line at the bottom of the menu.

Move the joystick to the right or left. You'll scroll forward or backward through the sheet music. When you want to add a space, push the joystick button.

You'll see a space appear. The notes to the right of the space are pushed further right. Notice that INSERT SPACE puts spaces between the notes in all three voices. Also, you cannot insert notes while you use INSERT SPACE. You can leave room for a note and add it later in the usual manner.

When you're finished, push the joystick up once. The PAINTBRUSH appears.

Deleting Notes and Spaces

Here's another way to erase notes or spaces. This option is called DELETE SPACE, but it will erase notes as well as spaces.

Follow the same steps you took to INSERT SPACE. When the cursor is on the PAINTBRUSH, hold down the joystick button and pull the joystick down twice. DELETE SPACE appears.

Move the cursor to the horizontal blue line and scroll through the sheet music just as you did for INSERT SPACE. When you want to erase a note or space, press the joystick button. DELETE SPACE erases the notes in all three voices at once. Notice that the notes to the right of the deletion move left to fill in the gap.

When you're finished, push up on the joystick. The PAINTBRUSH appears.

14

Copying Blocks of Music

The COPY BLOCK option lets you copy whole blocks of music from one part of your composition to another.

Follow the same steps you took to INSERT and DELETE SPACE. When the cursor is on the PAINTBRUSH, hold down the joystick button and pull the joystick down three times. COPY BLOCK appears.

Release the joystick button. Move the cursor to the horizontal blue line at the bottom of the menu. At the very top of the screen, you'll see this message:

MOVE CURSOR TO ONE END OF COPY BLOCK

Scroll through the sheet music just as you did for INSERT and DELETE SPACE. When you reach the beginning of the block of music you want to copy, press the joystick button. THE MUSIC PAINTER marks this place. At the top of the screen, you see:

MOVE TO OTHER END

Now scroll to the end of the block you want to copy. As you scroll, a black line appears above the notes that will be copied. When you reach the end of the block, press the joystick button again. The Music Painter marks this place. Now you see this message:

MOVE TO DESTINATION OF COPY BLOCK

Scroll to the spot where you want to insert the block of music. You must insert the music outside the marked block.

When you reach the desired spot, press the joystick button. The music you copied will begin here. The original block of music stays where it is—it isn't affected by the COPY BLOCK function.

When you finish copying, push the joystick up. The PAINTBRUSH appears.

That's it! It's up to you from here on. Don't be afraid to experiment. Sometimes a note or passage that seems to be a mistake turns out sounding great.

GLOSSARY OF MUSICAL TERMS

HARMONY: The sound of several notes played together.

MEASURE: The way notes are grouped in a piece of music. A measure is marked by a vertical line called a bar. Each measure in a particular piece of music contains the same number of beats. However, remember that notes can vary in length. A note can equal half a beat or be held for two or more beats. You can alter the length of each note and the number of notes in a measure to create your own beat. (See the definition of note, below.)

MELODY: A melody is a tune.

MIDDLE C: The C nearest the middle of the keyboard on a piano.

NOTATION: The writing down of music.

NOTE: One tone. Notes vary not only in pitch —they can sound high or low—but also in the length of time they're held. A note can last for half a beat or two or more beats: A whole note usually lasts four beats; A half note usually lasts two beats; A quarter note usually lasts one beat; An eighth note usually lasts half a beat.

RHYTHM: Rhythm is the music's beat. It is determined by the number of beats between each accented beat. For example, a waltz rhythm is ONE, two, three, ONE, two, three. The accent comes once every three beats. In most songs, the accent comes once every four beats: ONE, two, three, four, ONE, two, three, four.

SCALE: A given set of notes that fall between any two letters that are the same. For example, one C scale can begin at middle C and either ascend or descend to the next C.

SHARPS AND FLATS: Sharps and flats are notes that fall above (sharp) or below (flat) a certain letter note. F# (F-sharp) is above F and below G. A (A-flat) is below A but above G. When you play notes in The Music Painter, you'll see on the staff how sharps and flats come between the other notes.

STAFF: The lines and spaces on which notes appear when written down. A staff can be a treble clef or a bass clef: Higher notes usually appear on the treble clef; Lower notes appear on the bass clef.

TIME SIGNATURE: In most pieces of music, this is the number at the beginning of the work that indicates the rhythm, or the number of beats to a measure.

In 4/4 time, there are four beats to a measure and a quarter note gets one beat.

TONE: A definite musical sound; a note.

16