

The Manual

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PRELUDE

Instant Music is for the musician in us all. If you find yourself strumming air during your favorite guitar riff, or drumming along on your car steering wheel, but the only *real* musical instrument you can play is your stereo, then *Instant Music* may be just what you've been waiting for.

Imagine yourself playing the lead guitar solo to your favorite tune, without making mistakes! With *Instant Music* you don't need to know the rules of harmony, counterpoint, or rhythm to jam to the music. *Instant Music* lets loose your creativity by keeping track of the rules for you. You can give yourself over to the tune that plays in your head. If you're close, *Instant Music* will put you right on.

But *Instant Music* gives you a lot more than just jamming. You can write a full score for a set of three instruments (which you choose from many), and the artificial intelligence built into *Instant Music* makes sure they play in tune. Or you can use one of the many songs on the program disk as a template and add the notes, embellishments, and refinements yourself. The templates have been constructed with the musical information already built in — rhythm, scale, and chord rules. With *Instant Music* you can concentrate on what sounds good, rather than "How do I voice a C9 chord with an E bass?"

If you're an accomplished musician, you'll find that *Instant Music* is a powerful composing tool. It's a great place to sketch your ideas with the help of the built in artificial intelligence. You'll be thrilled at the speed with which you can create different arrangements, quickly finding the one combination of voicing and instruments that captures the essence of a song. You can save your ideas to revisit later, when you feel more like turning off the guides and fine tuning your piece in "free mode" to add some unorthodox flair. And if you own a MIDI instrument, you can play your finished song using *Instant Music's* MIDI capability for excellent sound.

In short, *Instant Music* is a powerful tool, and it's fun to use at the same time. You'll create, hear, and *see* your music instantly. The notes for each instrument are a different color, and the time each note plays is drawn as actual length on the screen, so you can easily see the relationships of instruments, rhythms, and pitches. If you're a musician, looking at an entire 16 or 32-measure song in a single screen will give you a new awareness of music structure, and a new way to analyze it. If you're a beginner, you'll be amazed at how much you can learn about music, without studying — it's all play!

How To Use This Manual

This manual is organized so you can use just as much of it as you want. If you like to experiment (and we hope you do), you'll probably want to know how to start the program, load a song, and jam. From there you can play with the controls and discover the fun and power of *Instant Music* on your own. But if you want some specific information, the manual is designed to give you that, too.

The first chapter, Guided Tour, is an overview of the program that gets you up and running fast, demonstrating why we call the program *Instant Music*. The second chapter, Going Further With *Instant Music*, is a series of lessons that illustrate the program's more advanced features for those who want to create their own complex compositions. The third chapter, *Instant Music* Reference, is a quick reference guide listing all of *Instant Music's* menus and commands. The Appendix B at the end of the manual contains documentation for the music included with *Instant Music*, and information for those who want to learn more about music theory and notation.

CHAPTER 1: GUIDED TOUR

Starting Instant Music

To use *Instant Music* you'll need a Commodore 64 (or Commodore 128 in C64 mode), a monitor, a joystick or mouse, one or two disk drives, and some initialized blank disks for saving your work. (Note: We recommend that you use an audio/video cable that allows separate routing of audio to your stereo or other amplification device. This will greatly improve the sound quality.)

Start your Commodore 64 as usual (start your C-128 in C-64 mode). Now, with *Instant Music* in the drive, type Load "EA", 8, 1. After the program has finished loading, the title screen appears, followed shortly by the *Instant Music* screen. The *Instant Music* theme song is loaded automatically and begins playing. (If you are loading the program from the GEOS™ desktop, double-click on the EA *Instant Music* icon.)

Selecting Joystick or Mouse: When you start *Instant Music*, it is ready to be used with a joystick. (Note: the joystick must be plugged into Port 2.) If you want to use a mouse as your input device, you need to indicate this. Use your joystick to move the pointer to Option at the top right of the screen, press and hold the joystick button, pull the pointer down to highlight Control, and release the button. A window appears for you to select mouse or joystick control. Point to Mouse and click the joystick button. (If you don't have a joystick, press Shift-C to bring up the Control window, and press Return to automatically select mouse control.) Unplug your joystick, and plug the mouse into Port 2. *Instant Music* now recognizes your mouse as the input device. We think you'll be especially pleased with the responsiveness of the program. Throughout this manual, we will refer to "joystick." If you are using a mouse, pretend we said mouse, and use the left mouse button when we say joystick button. (Note: if you're using a mouse, don't use the keyboard shortcuts.)

Jamming: Before we start on our guided tour, let's take a quick detour and learn about joystick (or mouse) jamming, a technique for turning your computer into a real-time musical instrument. Notice the button in the upper-right corner of the screen that contains an icon in the shape of the joystick. This is the **Jam Button**. The icon is white to indicate that jam is currently *on*. Now take a look at the instrument controls at the very bottom of the screen. The instrument name in the control at the far left is highlighted in white; this means that that instrument is currently selected for you to jam with. Move the joystick pointer so it's in the large center window that contains the colored bars, hold down the joystick button, and start moving the joystick forward and backward. (The pointer moves up and down on the screen.) You'll hear that the selected instrument is now playing in response to your joystick movements. How's that for an example of *instant* music?

We'll discuss jamming in more detail in the jamming section later on. For right now, let's begin with some other basics you'll need to know while working with *Instant Music*.

Screen Controls

You can operate *Instant Music* through a number of different on screen controls. Figure 1.1 shows the Instant Music screen with each of the controls labeled for easy reference. Most of these controls will be explained in the next few pages. For now, click the **White Button** in the upper-right corner of the work screen to stop the music. Also click the **Jam Button**; when you click the button, the joystick icon turns black, indicating that the feature has been turned off.

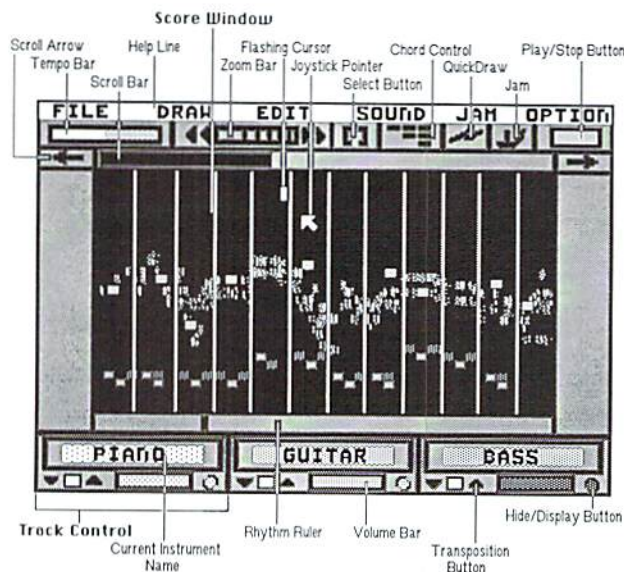


Figure 1.1: The *Instant Music* Screen

Loading Music

To load a song from the *Instant Music* disk, move the joystick pointer to File at the top of the screen; press and hold the joystick button to pull down the File menu. Move the pointer down to highlight the **Load** option, and release the button. A window appears (see Fig 1.2) with a listing of the songs on the disk and a space for entering the name of the song you want to load. Point to the song title *Hey You* and press the joystick button (from now on, we'll call this point and press combination "clicking"), then click the **Load** button to load the song.

The song is now loaded, complete with notes, instruments, volume and tempo settings, and pitch and rhythm guides. (Pitch guides restrict the pitch of notes you can enter in a song to ensure that your song sounds "good." Rhythm guides set the length of the notes you enter. You'll learn more about these guides in Chapter 2.)

NOTE: Use **Load New** in the **File** menu to load the blank template for a song. This loads every part of the song except the notes — the instruments, the volume and tempo settings, and the pitch and rhythm guides. You can then enter your own notes.

Now that you know how to load a song, you might want to experiment with the controls and menus. When you're finished experimenting, or if you run into trouble, just come back to this point in the manual and reload *Hey You* as explained above. The following few pages explain the features of *Instant Music* that you are likely to use most often.

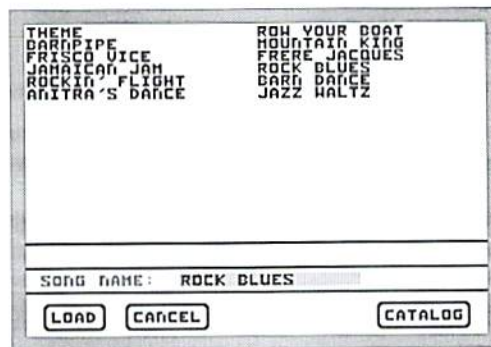


Figure 1.2: The Load Song Window


Playing Music

As soon as the song has finished loading from the disk (when the drive light has gone out), click on the red **Play/Stop** button at the top right of the screen. Now the button changes back to white, and *Hey You* begins playing. You stop the music by clicking the **Play/Stop** button again. For now, let the song play.

The Instant Music Screen

Let's take a closer look at the *Instant Music* screen. What you see is a two-measure overview of the song in the **Score Window** in the center of the screen, and a number of surrounding buttons and controls (see Fig 1.1). The controls at the top of the screen let you work with the entire song — for example, to speed up the tempo. The **Scroll Bar** (with left and right arrows) lets you scroll left or right through a song, one measure at a time. We'll discuss the function of the other buttons, bars, and icons at the top of the screen as we go along.

The moving black line below the score window is the **Scan Bar**. It moves across the **Rhythm Ruler** to show what portion of the music is currently playing. The **Rhythm Ruler** shows the pattern of the current rhythm guide. (The pattern is visible only when three or fewer measures are displayed in the score window.) Below the **Rhythm Ruler** are the controls for the three instruments playing in this piece (called **Track Controls**). Each track control contains a **Current Instrument Name**, **Transposition Buttons**, a **Volume Bar**, and a **Hide/Display Button**. The term *track*, as used in *Instant Music*, refers to a set of notes (indicated by color) and the rhythm guides, pitch guides, and instrument assigned to that set of notes. Just



as in music recording, you can manipulate the sound of each track separately before combining them into a finished song. When you copy notes from one track to another, you are actually copying more than just notes. This will become clearer as you begin using the editing functions.

Changing Tempo

Move the joystick pointer up to the white horizontal **Tempo Bar** at the upper left corner of the screen. Press and hold the joystick button, and drag the marker to the left to slow down the music. Drag to the right to speed it up. (You can also simply point to the position you want and press the joystick button. The tempo bar will adjust to meet the pointer.)

Changing Volume

You can control the volume of each of the three instrumental voices using the **Volume Bars** in the track controls below the score window. Click on the right side of the **Volume Bar** in the green track control (the green horizontal bar) and drag it slowly to the left. As you do so, note that the volume of the instrument decreases. As you move the **Volume Bar** back to the right, the instrument becomes louder.

Viewing Tracks

You can make the notes disappear entirely by clicking the **Hide/Display Button** to the right of the **Volume Bar**. Click it again to make them reappear. This doesn't affect the sound of the piece, only the appearance. Sometimes when there are a lot of notes on the screen, you may want to look at the notes of just one track. Switching off the notes of the other tracks is a quick way to get an overview of a single melody line.

If you write music with more than one instrument playing in the same octave range, notes may overlap. When notes of two instruments occupy the same space in the score window, they appear in the color of the third instrument (for example, red and green placed on top of each other appear as blue). Three notes placed on top of each other appear as black. With the **Hide/Display** button, you can turn off the display of two instruments to see all the notes of the third. Or, you could write tracks in different octaves and transpose them as explained below.

Transposing

With *Instant Music*, you can raise or lower a track's pitch (transpose) by an octave without changing the key. Use the **Transposition Buttons** (the down-arrow, the square, and the up-arrow at the bottom left of each track control.) When the middle square is lit, the track plays at its normal pitch. If you click the down-arrow, the track plays an octave lower. If you click the up-arrow, the track plays an octave higher. Clicking different **Transposition Buttons** does not, however, change the note display in the score window.

Changing Instruments

The **Sounds** menu contains the list of the instruments available. (Point to **Sound** and hold down the joystick button to see your list.) If you want to use a different instrument in the green track, just click the name of the green instrument in the control at the bottom of the screen. Now pull down the **Sounds** menu and select your new instrument. Your new instrument is loaded as the green instrument, and its name appears on the green track control.

Entering Music

You can enter new notes, or change existing notes for any of the three instrument colors. First select the instrument you want to work with by clicking its track control (select the red instrument for this exercise). Now move the joystick pointer into the score window: notice that the flashing white cursor appears right next to the joystick pointer. Use the joystick to move the flashing cursor around the window; at the same time, click the joystick button in the score window a few times. If you click the joystick button on a blank column in the score, a new note is inserted at the flashing cursor position. If you click in a column that already contains a note for your instrument, the note is raised or lowered to the flashing cursor position.

To erase an existing note, place the flashing cursor on the note and press Del on the keyboard.

The QuickDraw Etude in Chapter 2 shows another method of entering music.

Jamming

Instant Music offers you the unique opportunity to play your computer like a musical instrument. When you select a track control and click the **Jam Button** (Figure 1.1), *Instant Music* lets you use the joystick to control the instrument assigned to the selected track. Thus, you can jam on a single track while the other two tracks play backup. In addition to the **Jam Button**, there is also a **Jam** menu that provides three different types of jam. (Note: Keyboard equivalents are offered to save you the time of pulling down menus to execute some of the common commands. Here, for example, you could press P to select Preset Rhythm for jamming. Shortcuts are listed beside the command in the Reference section.)

Score Rhythm: The Score Rhythm option keeps your jam within the musical boundaries established by the song template. In essence, *Instant Music* looks over your shoulder as you jam and makes sure that you don't play any off-key or out-of-time notes. Here's how to play a guided jam:

1. Click the **Play/Stop Button** to play the song if it's not already playing.
2. Click on the red track control to select it as the instrument you want to jam with.
3. It's a good idea to raise the volume of the jam instrument and lower the volume of the other two. This makes your solos really stand out.
4. Pull down the **Jam** menu and select **Score Rhythm**.
5. Click the **Jam Button** at the top right of the screen (see Figure 1.1), and suddenly your selected track stops playing notes from the score. This is supposed to happen; *Instant Music* has just turned control of the track's instrument over to you.
6. Move the pointer down to the score window. The flashing cursor is now moving from left to right in sync with the **Scan Bar**.

7. Press the joystick button and your instrument begins playing again. When you release the joystick button, your instrument stops playing.
8. Now, while holding the button down, move the joystick forward and backward. Try moving it slowly, then more quickly. The pitch rises when the flashing cursor is at the top of the screen and falls when it's at the bottom.
9. Click the button several times as you move the joystick. Your jam instrument plays an individual note each time you click, in the song's rhythm.

As you can see and hear, the instrument is now playing in response to your joystick movements, but the notes are being kept in the proper key and rhythm.

Preset Rhythm: The Preset Rhythm option lets you use your computer's number keys to activate stored jam rhythm styles. To get a feel for Preset Rhythm, select the **Preset Rhythm** option from the **Jam** menu, start jamming, then push the **1** key along the top row of the keyboard. Now try **2, 3, 4**, and so on until you've gone through all the preset licks on the keyboard. Preset Rhythm lets you add another dimension of rhythmic flexibility to your jams. Note: you must release the joystick button to activate a new preset rhythm.

Free Rhythm: The Free Rhythm mode operates exactly like Score Rhythm, except the song template rhythm guides aren't used in the jam. While this gives you much more control over individual notes in the melodic line, it also allows you to play notes when they really shouldn't be played. Other jam modes are better for more structured improvisation because they use preset rhythms as guides.

Jam Experiments: With *Hey You* still loaded in the score window, try selecting the bass line (the blue track, which uses a bass as the instrument) and jamming with that. Click the down arrow **Transposition Button** to turn another track into a second bass line, and listen to the harmonies as you jam. What you're doing is like jazz improvisation -- making up new notes "on the fly" to fit into a preexisting chord structure. *Instant Music's* guides keep your notes within a preset pattern so no matter what you play, the notes fit. If you want to hear a jam without pitch guides, select **Set Guides** from the **Draw** menu. Click the **Free** button in the upper half of the window and click **OK**. Then try a jam. Now your creativity is completely unbridled, because the **Free Pitch Guide** option removes the guides that keep the pitch of your notes within traditional musical boundaries.

Keyboard Changes: In addition to using the keyboard to choose preset rhythms, you can use other keys to make changes as you jam.

F 7	Toggles jamming on and off
O	Selects Score Rhythm
P	Selects Preset Rhythm
F	Selects Free Rhythm

F 1	Selects the green instrument
F 3	Selects the red instrument
F 5	Selects the blue instrument
Spacebar	Starts and stops the music
↑ (Shift-cursor key)	Raises the pitch for all tracks a half step. Changes the sound, not the display.
↓ (cursor key)	Lowers the pitch for all tracks a half step if it was raised with the up arrow.
↔ (cursor key)	Resets the pitch for all tracks to the normal settings.

Finishing a Session

So far, you've been experimenting with existing music. In the next chapter, we'll discover how *Instant Music* lets you write your own compositions, even if you know nothing about musical notation.

Saving Your Creations

If you want to save the music with the changes you've made, you can use one of these options in the File menu – **Save** or **Save As**. (You will need a formatted data disk on which to save your songs. If you don't have one prepared, you can format one now without leaving the program: select **Delete** from the file menu, click **Format** at the bottom of the window and follow the prompts. After the disk is formatted, **No Songs On This Disk** will appear in the window and the pointer will reappear. Select **Cancel** to return to the *Instant Music* screen.)

Save: Replaces the original song with your changed song, using the same title. Use this option if you have made changes to a previously saved song and you want to keep the new version but not the original. Pull down the **File** menu and select **Save**.

Save As: Lets you save your new song (or your modified old song) under a different title, while keeping the old song under the original title. First pull down the **File** menu and select **Save As**. When the **Save As** window appears, click in the song name field, type a new name for your piece, press **Return**, and click **Save**. The piece will be saved under the new name. (If you want to save the file to a different disk, insert your disk and click the **Catalog** button. Then enter the file name in the song name field, and click **Save**.) Or if you change your mind and decide you want to go back to the *Instant Music* screen without saving, click **Cancel**.

CHAPTER 2: GOING FURTHER WITH INSTANT MUSIC

This section is composed of nine etudes that cover the advanced features of *Instant Music* in detail. An *etude* (pronounced "ay-tood") is a simple lesson that introduces a specific technique or method. Each etude is made up of a number of short exercises. The following etudes are self-contained and may be referred to individually if you have questions about how to do a specific task in *Instant Music*. For instance, if you want to know how to use *Instant Music's* rhythm guides, see the Rhythm Guide Etude. You should have a formatted disk ready in case you want to save your compositions. (The Delete option in the File menu also allows you to format disks without exiting the program or song.)

I. Edit Commands Etude


This etude discusses how to copy, paste, and erase measures in your song. (The commands you'll need are found in the Edit menu.) You'll learn how to change the length of your song and move notes, rhythm guides, and pitch guides within a song.

Here is an overview of the commands you'll use:

Function	Edit Commands
To copy one or more measures of a song, including notes and rhythm guides (and pitch guides with Copy All)	Copy Color, Copy All Colors
To erase one or more measures of notes (but not rhythm guides or pitch guides)	Erase Color, Erase All Colors
To paste a copy of notes and rhythm guides (and pitch guides with Paste All)	Paste Color, Paste All Colors

Exercise 1: Lengthening a Song. In this exercise you'll learn how to copy existing music and add it to your song.

1. Load *Rock8* from the *Instant Music* program disk. (Click on MORE SONGS at the bottom of the right column to switch between pages in the directory.)
2. Select **Song Length** from the **Option** menu to add some blank measures to your song. Click the up-arrow until Measures equals 4 and then click **OK**. Notice that four measures are now displayed in the score window. The first two measures are the original *Rock8* song, and the next two measures are blank.
3. Click the **Select Button** above the score window. Position the joystick pointer in the first measure of the score window, hold down the joystick button and drag the pointer toward the



right to select the first two measures, then release the joystick button. A box surrounds the two measures to indicate they are selected.

4. With the first two measures selected, pull down the **Edit** menu and select **Copy All Colors**. (This copies the notes, rhythm guides, and pitch guides from those two measures into the copy buffer.)
5. Now click the **Select Button**, move the pointer into the third measure, hold down the joystick button, and drag to select measures three and four.
6. Select **Paste All Colors** from the **Edit** menu. This tells *Instant Music* to paste the notes, rhythm guides, and pitch guides into the score in the measures you selected. You have now lengthened *Rock8* to four measures without having to enter any notes by hand.

Exercise 2: Transferring Music Between Tracks. In this exercise you'll learn how to move music from one track to another.

1. Click the left-hand double-arrows in the **Zoom Bar** twice to zoom in and show only measures 1 and 2 in the score window.
2. Now select the blue track by clicking its track control.
3. Select the entire score window with the **Select Button** and use **Copy Color** from the **Edit** menu. (This copies the notes and rhythm guides from only the blue track into the copy buffer.)
4. Click the **Select Button** and select the entire score window again. Erase the blue track using **Erase Color**.
5. Select the green track.
6. Again, select the entire score window, but this time select **Paste Color** from the **Edit** menu. The notes and rhythm guides from the copy buffer (which had previously belonged to the blue voice) have now been transferred to the green voice. Note that we didn't have to erase the green voice; we simply pasted over it.

II. Rhythm Guides Etude

This etude explains the concept of rhythm guides and shows you how to use them in writing your own music. The exercises in this etude also point out the difference between the standard rhythm guide (called **Guided**) and the custom rhythm guides available from the **Draw** menu (such as **Quarter** and **Eighth**).

Exercise 1: Using Standard Rhythm Guides. In this exercise, you'll learn how to copy the standard rhythm guides for a song, view these guides for each track, and use them to create your own song.

1. Load *Rockin' Flight* and play it.
2. Select all the notes and erase them using **Erase All Colors** from the **Edit** menu. (The notes of your song are now erased, but the rhythm guides and the pitch guides for that song are left unchanged. Each track has its own rhythm guide.)
3. Narrow the score window to three measures with the **Zoom Bar**. (Now you can see the rhythm guides in the **Rhythm Ruler** below the score window.)
4. Pull down the **Draw** menu and select **Set Guides**. This displays the **Set Guide** window (see Figure 2.1). In the **Rhythm Guide** area of the window, make sure that the **Guided** button is selected (highlighted in yellow). Then click **OK**. (This tells *Instant Music* to keep the standard rhythm guides for the song.)

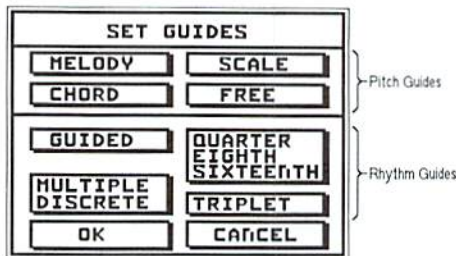


Figure 2.1: The Set Guide Window

5. Now select the three tracks, one by one; look at the **Rhythm Ruler** (below the score window) for each track. Notice that the black bars in the **Rhythm Ruler** vary in length to reflect the rhythm guide pattern for that track. A track's rhythm guide determines the *length* of the notes to be inserted in that track.
6. Select a track that has a great deal of rhythmic activity (black bars of varied lengths), and enter some notes. Notice that the lengths of these notes correspond to the lengths of the rhythm guide bars in the **Rhythm Ruler**.

Exercise 2: Using Custom Rhythm Guides. In this exercise, you'll see how to change the rhythm guides for any of the instruments to the custom rhythm guides that can be accessed through the **Draw** menu.

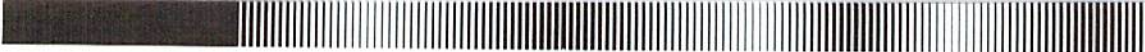
1. Pull down the **Draw** menu. Select **Set Guides**, and in the **Rhythm Guide** area, click **Quarter**. Make sure that **Discrete** is selected (if it's not, click it.) Click **OK**. Now any notes you add to the score will automatically be quarter (1/4) notes. (Notice that a grid of dotted vertical lines now appears on the score. These are to help you judge the comparative length of notes, especially when you change rhythm guides several times and add notes of several different lengths.)
2. Select a track and enter some notes. Notice that the corresponding black bar on the **Rhythm Ruler** changes to reflect the length of each note you add to the score.
3. Try other rhythms such as **Eighth**, **Eighth and Triplet**, and **Sixteenth**; and enter some notes in the score while in each of these guides. (Note: Triplet can be selected with any of the custom rhythm guides. When Triplet is selected, the notes entered will be 2/3 the duration indicated by the custom guide.) While in each of these guides, hold down the joystick button and slowly move the cursor across the screen. This is an easy way to enter a number of notes in one gesture.
4. Go back to the **Draw** menu and choose **Set Guides**. In the **Rhythm Guide** area, click **Eighth and Multiple**. Click **OK**.
5. Enter notes on the screen by holding down the joystick button and slowly dragging the pointer a short way before releasing the button. Notice that when using 1/8 and **Multiple**, notes are entered in lengths that are multiples of 1/8; i.e., 1/8, 1/4, and so on.

NOTE: If you are familiar with musical notation, you can write rhythms and enter drum patterns or melodies using custom rhythms. If you are truly ambitious, try taping one of your favorite drum patterns, then transcribe it into *Instant Music*.

III. Bass Line Etude

In this etude you'll use the **Chord Pitch Guide** and the **Scale Ruler** to write a simple bass line.

1. Load *1962 Fun*. Listen carefully to the bass line (Track 3). Turn down the other instruments if you like.
2. Pull down the **Draw** menu and use the **Scale Ruler** command if the scale ruler isn't already displayed. Then, set the **Pitch Guide** to **Chord**. The chord pitch guide insures that all notes you enter are valid notes that belong in the chord.
3. Place the joystick pointer in the first measure and move it up and down. This causes two other changes on the screen: 1) A white arrow moves up and down the scale ruler on the *right* side of the score window, and 2) the note indicator below the keyboard on the *left* side of the

- 
- screen displays the letters of the notes in the scale. Move the joystick pointer until the white arrow is aligned with a white tick mark, which represents the root note of the chord. The note indicator shows that the root note is G.
4. You can use this method to determine the other three notes in this chord, which are B and D.
 5. Select the bass voice (Track 3) and choose **Erase Color** from the Edit menu.
 6. To compose a new bass line, use the **Zoom Bar** to narrow the score window to display only two measures. The two measures of bass line that you build can later be copied and pasted to the rest of the song.
 7. Set the **Rhythm Guide** to **Quarter**. Look at how the two measures are now divided in the score window. The solid vertical line down the center of the window indicates the measure division, and the dotted vertical lines indicate where the beats within the measures fall. You're using $1/4$ rhythm, which means there are four beats per measure, thus each measure in the score window is divided by three vertical dotted lines.
 8. Move the joystick pointer in the first measure until the white arrow on the **Scale Ruler** is pointing at the second from bottom white tick mark and the **Note Indicator** says G. Click in the first and third beats of the first measure to insert the note G. Because each of these notes is only a $1/4$ beat in length, they are called *quarter notes*. (Note: To erase any mistakes, place the cursor on the incorrect note and press Del on the keyboard.)
 9. In the second measure, enter a B quarter note (the short red tick mark on the scale ruler) on the first and fourth beats in the second lowest octave.
 10. **Zoom** out to display all eight measures of the song, and **Copy Color** the two measures you've entered.
 11. Now select measures 3 & 4 of the song and use **Paste Color**. Repeat this process with measures 5 & 6 and 7 & 8 so that the first two measures are duplicated throughout the rest of the song. Listen to the song. The result is a very plain bass line, so let's add a bit of variety by modifying each measure of the bass line.
 12. **Zoom** back in to two measures and lower the second B note in the second measure by a full octave.
 13. Now **Zoom** out to display the entire song and copy the first two measures with **Copy Color**.

14. Use **Paste Color** to duplicate your two measures throughout the rest of the song. Now listen to the song again. You should be able to tell quite a difference from the previous bass line.

This etude has shown how to display the **Chord Pitch Guide**, how to write a simple bass line, and how to add variety and substance to the bass line just by rearranging notes within the chord. In the next etude, we'll see how to build an actual chord.

IV. Chords Etude

This etude demonstrates how to use *Instant Music's polyphonic* chord utility. The word polyphonic simply refers to *Instant Music's* ability to sound multiple notes at the same time from a single instrument — an ability that is essential for playing chords. (*Instant Music* on the Commodore 64 can sound 3 notes at the same time for one instrument. Because the C-64 can play only three notes, if there are more than three written to play simultaneously, any chords played by one instrument will be stripped down. For example, if one instrument plays a three note chord while another instrument plays a single note, the three note chord will actually play as a two note chord.)

1. Load *BarnDance*.
2. Select the blue track and **Erase Color**.
3. Set the **Pitch Guide** to **Chord** and the **Rhythm Guide** to **Quarter**. (Also from the **Draw** menu select **Scale Ruler** if not already selected.)
4. **Zoom** in to display only four measures and begin entering quarter notes on the first and third beats in these measures. Enter notes on the root of the chord (the white tick mark). Enter the lowest possible root note because the notes on beats one and three will form the bass line.
5. You have just entered all the *oom's*, but you still need to enter the *pah's*. Click on the two black dots of the **Chord Control** (above the score window and to the right of the **Select Button**) so you can enter 2-note chords.
6. Now enter chords at mid-screen level on the second and fourth beats in the selected measures. Every time you click the joystick button, two notes are entered. These two notes together form the chord. Chords are built *down* from cursor position, so your cursor always points at the top note of the chord.
7. When you have entered chords in all four measures, play the piece and listen carefully.
8. Experiment by changing all the 2-note chords to 1-note chords (by clicking the single dot on the **Chord Control**), and listen to the difference.

In this etude you have performed an example of entering chords as an accompaniment to a melody. Generally, a good strategy is to put chords on the weak beats (2 and 4 in 4/4 rhythm; 2 and 3 in 3/4 rhythm), and single bass notes on the strong beats (1 and 3 in 4/4 rhythm; 1 in 3/4 rhythm). Experiment with using 1, 2, or 3-note chords until you find the sound you like.

V. Pitch Guides Etude

This etude is a continuation of the previous etude (IV. Chords Etude). If you haven't done the chords etude yet, do it before continuing with this one.

The following exercises demonstrate how to incorporate the **Melody**, **Scale**, and **Free** pitch guides in the melody line of your composition. **Pitch Guides** are one of *Instant Music's* most powerful tools because they restrict the pitch of notes you can enter in a song to ensure that your song sounds "good." Each pitch guide restricts you in a different way. The fewer restrictions you have (for example, with the **Free** pitch guide), the more opportunity you have to create strange sounds, and the more careful you must be when entering notes.

Exercise 1: Using the Melody Pitch Guide.

1. **Zoom** in to display measures 1 and 2 only.
2. From the **Draw** menu, select **Set Guides**. Select the **Melody** pitch guide and **Guided** rhythm. Click **OK**. Select the green track and note the rhythm guide pattern for the green track on the **Rhythm Ruler**.
3. Enter notes for the green track at the top of the score window. You'll notice that the scale ruler changes as you enter notes. The scale ruler changes on each beat to reflect the boundaries set by the **Melody** pitch guide.
4. When you have entered a simple melody, play it to see how you did, save it if you want, then erase it.

Exercise 2: Using the Scale Pitch Guide. In this exercise, you'll see how to use the **Scale Pitch Guide** and how it affects your music.

1. Set the **Pitch Guide** to **Scale**.
2. Enter a new melody at the top of the score window. Notice that there are many more notes indicated on the scale ruler now, giving you a great deal more freedom in where you can enter notes in the score.

3. Once again, play your melody. If you notice that your new melody doesn't sound quite as good as the last (this, of course, will depend upon your musical knowledge) it's because *Instant Music* didn't give you as much help when placing your notes this time around. Erase your melody again.

Exercise 3: Using the Free Pitch Guide. In this exercise, you'll see how to use the **Free Pitch Guide** and how it affects your music.

1. Set the **Pitch Guide** to **Free**.
2. Now enter another new melody and listen to it. With a **Free Pitch Guide** the sound of your music depends entirely on your musical abilities — **Free Pitch Guide** gives you absolute freedom in the way you enter notes.

The last two etudes have covered all four of the **Pitch Guides**. The **Pitch Guide** you use most when creating your music will depend on your knowledge of music. Novices should always use **Melody** and **Chord**. Intermediate musicians should use any of the first three **Pitch Guides** and experiment with **Free**. Experienced musicians can use whichever **Pitch Guide** is appropriate for the musical project.

VI. QuickDraw Etude

This etude introduces another powerful tool of *Instant Music*: **QuickDraw**.

Exercise 1: Using QuickDraw. In this exercise, you'll see how to use the **QuickDraw** function to quickly enter large numbers of notes into your composition.

1. Use **Load New** to load *BoogieWoogie*.
2. **Zoom in** to display only two measures.
3. Set the **Pitch Guide** to **Scale** and the **Rhythm Guide** to **Guided**. **QuickDraw** can only be used with the **Guided Rhythm Guide**.
4. Click the **QuickDraw Button** above the score window. (The lightning bolt turns white when selected.)
5. Position the cursor on the left side of the score window, hold down the joystick button, and drag the cursor straight across to the right side. As you drag you'll notice that a line stretches from the point where you initially pressed the joystick button.

6. Release the joystick button on the right side of the score window and watch *Instant Music* fill in notes along the path created by the line. This is **QuickDraw**. Listen to your new creation and then erase it.

Exercise 3: Using QuickDraw Patterns. In this exercise, you'll learn how to **QuickDraw** in different patterns that create interesting lines of music.

1. Select **QuickDraw Pattern** from the **Draw** menu and select the pattern in the lower right corner. Click **OK**. Notes entered with **QuickDraw** will now be entered in the pattern represented by the three dots you selected.
2. Once again drag a line from the left side of the score window to the right. Though the line itself is still straight as you drag across the score window, notes are entered in a wavy pattern as you release the joystick button.
3. Play your new **QuickDraw** creation and listen to the difference with this new pattern.
4. Experiment with the other **QuickDraw** patterns.

In this etude you've seen how to use **QuickDraw**. You can add even more variety to your music by using different **Pitch Guides** with the **QuickDraw** patterns. For instance, try using **QuickDraw** with 3-note chords (see IV. Chords Etude). Vary the pattern often when you use **QuickDraw**. An interesting effect is to enter the tremolo pattern (lower left and top right patterns) in one track and the triplet pattern (lower right) in another track.

VII. Progressions Etude

This etude shows how to use progressions from the songs provided with *Instant Music* in your own compositions. A progression is a song segment used over and over in various places throughout a composition — like a repeating chorus.

1. **Load Rock5.**
2. Select the entire score window with the **Select Button** and then use **Copy All Colors**.
3. Now **Load Rock12.**
4. Pull down the **Option** menu and change **Song Length** to 8 measures.
5. **Paste All Colors** into measures 5 & 6, then repeat for measures 7 & 8. Measures 5 through 8 of *Rock12* are now the *Rock5* progression repeated twice.


6. Use **Copy All Colors** to copy measures 1 & 2, then **Paste All Colors** into measures 3 & 4.
7. Now play the song and listen carefully. Although the mood and texture of the two progressions we combined are fairly different, all the chord and scale guides necessary to make an original song are there.

In this etude you've seen how to take a progression from one song and use it in another. You can copy and paste a single color or all colors between songs. Try making a collage with measures from your favorite arrangements.

VIII. Polyrhythm Etude

In this etude you'll examine two examples of polyrhythm with *Instant Music*. Polyrhythm refers to two or more different rhythms going at once. Polyrhythmic music is often difficult to perform, but by using different rhythm guides simultaneously in *Instant Music* polyrhythmic music becomes quite simple.

1. **Load Samba** and listen to it carefully.
2. Turn the volume for the blue track all the way down and put the red track at full volume. Now listen carefully to the main rhythm (4 beats per measure) with just the red and green tracks playing
3. **Zoom** in on the first measure and you'll notice that there are four notes for each of the four beats in the red track. These are called 16th notes because with 4 notes for each quarter beat there are a total of 16 notes in a measure.
4. Now we'll slightly modify the rhythm. From the **Draw** menu, select **Set Guides**. Select **Eighth** and **Triplet** from the **Rhythm Guide**. Click **OK**.
5. Select the green track and enter notes over the existing melody. The result should be 12 green notes in the measure.
6. Listen to the result at various tempos and turn up the volume for the blue track. You are hearing 4 beats against 3 beats.
7. Repeat step 5 for the rest of the song and listen to the result.
8. Set the **Rhythm Guide** to **Quarter** and **Triplet**.
9. Enter a new melody in the green track for the entire song.

- 
10. Now listen to your polyrhythmic piece. The result is heard as a 2 beat against a 3 beat rhythm.

Used cleverly, polyrhythms can add a new level of interest to your music. However, be careful not to obscure the main beat with a rhythm that's too cluttered.

If you've worked through all eight etudes, you're well on the way to becoming a seasoned musician. But don't stop here. Listen to the songs on the program disk and experiment with the features of *Instant Music*.

CHAPTER 3: INSTANT MUSIC REFERENCE

I. Screen Controls

Refer to Figure 1.1 for the location of these controls. The keyboard equivalents (where they exist) are listed in parentheses after the feature name. A summary of all keyboard shortcuts appears as Appendix C. **Note:** Do not use keyboard shortcuts while holding down the joystick button.

Tempo Bar — Used to change the speed of the piece. Moving the tempo bar to the right plays the music faster, moving to the left plays slower. You may also change the tempo while a song is playing — this often results in surprising changes in mood. The tempo setting is saved with each song.

Zoom Bar — Lets you zoom in to view a single measure, or out to view an entire song (up to the maximum allowable length of 32 measures). Every song has a defined maximum length (see Option Menu below), and the Zoom Bar allows you to zoom out to the song's defined maximum length. Click the left double-arrow to zoom in, the right double-arrow to zoom out. To view an entire song, make sure the first measure is the leftmost measure.

Select Button — Used to choose notes to be copied, pasted, or erased. Defaults to full screen. To select a portion of the screen, press and hold the joystick button at the left edge of the desired section, "drag" the area (move the joystick with the button held down) and release the button. Selections are restricted to measure boundaries.

Chord Control — For selecting whether chords will be entered one, two, or three notes at a time. Position the cursor at the note you want to be the top note of the chord. *Instant Music* then automatically adds the next one or two notes (when in 2-note or 3-note modes) *below* the top note according to the current chord. For example, if the chord is C7 and you are in the three-note mode, a top note of Bb will result in an E-G-Bb chord. Likewise, a top note of F# in a D7 chord will result in a C-D-F# chord.

QuickDraw Button (Lightning Bolt icon or Q on the keyboard) — Draws with one of the four selected patterns available in the Draw menu (see below). (The patterns can also be selected using the Z, X, C, and V keys.) The top left pattern will result in a relatively linear pattern, depending, of course, upon melody, chord, or scale mode. The lower left and upper right patterns draw notes in a tremolo pattern, and the lower right pattern draws notes in triplets. All in all, QuickDraw is very useful for entering a large number of notes with a single broad gesture. Experimentation with QuickDraw is heartily recommended. Using Free Pitch Guide with the QuickDraw function produces a smooth line of notes; other pitch guides can produce wavy lines of notes.

Jam Button (Joystick icon or F7 on the keyboard) — Allows improvisation with selected track instrument. Uses Jam menu options (see below).

Play/Stop Button (White or Red button) — Starts and stops the music. Pressing the **Spacebar** on the keyboard is the equivalent of clicking on this button.

Scroll Box and Arrows — Clicking the right arrow scrolls 1 measure to the right of the score window (up to the current song length). Click the left arrow to scroll 1 measure to the left of the score window (down to the first measure). Clicking and dragging the scroll box moves you quickly to any measure or group of measures.

Track Controls (F1, F3, or F5 to select tracks 1, 2, or 3) — The track controls give you complete control over the three instrumental voices that are used in your music. Each track control contains the following gadgets:

Hide/Display

Button:

This is a round button on the right side of the track control which allows you to hide or display the notes for a particular track. This button doesn't affect sound, only appearance.

Volume Bar:

This is a horizontal bar in the center of the track control that displays the color and controls the volume level of a particular track. Decrease and increase volume for a track by dragging the Volume Bar to the left or right.

Transposition

Buttons:

These three buttons are located to the left of the Volume Bar on the track control. They lower or raise the octave of the selected track without changing the key. Click the down-arrow at the far left to lower the octave, the up-arrow at the far right to raise the octave, and the square in the center to put the track back at its normal octave. When used in the lower range of the score window, some instruments sound better when raised an octave with the Transposition Buttons.

To Enter Single Notes — Move the flashing cursor to the desired location and click the joystick button. When entering notes with guided rhythm, the time value for a given note is automatically assigned according to the rhythm guide. When in multiple mode and rhythm is not guided, you can click and drag the notes horizontally to the right for longer durations up to a whole note.

To Erase Single Notes — Move the flashing cursor to the note and press the Del key on the keyboard. (If you are using a mouse, you can erase notes by moving the cursor to the note and pressing the right mouse button.)

II. Menus and Commands

File Menu — Use for all of *Instant Music's* disk and file commands. These commands all bring up a window for selecting or entering song titles. Whenever the window is opened, the Song Name box shows the name of the current song if there is one loaded.

Load (L):

Brings up the Load window so you can load complete songs from disk, including notes, instruments, volume and tempo settings, and pitch and rhythm guides. Click "More Songs" to switch between pages in the directory.

Load New:

Lets you load a song template — no notes are loaded, but instruments, volume and tempo settings, and pitch and rhythm guides remain in place.

Save:

Saves the loaded file to disk under the current file name — replaces any file with the same name.

Save As (S): Brings up the **Save As** window so you can save the loaded file to disk under a new name — leaves original file (if any) unchanged. See *Saving Your Creations* for more information.

Delete: Brings up the **Delete** window so you can delete songs from your disks. This window also enables you to format disks without leaving the program. (To format a disk: select **Delete** from the file menu, click **Format** at the bottom of the window and follow the prompts. After the disk is formatted, **No Songs On This Disk** will appear in the window and the pointer will reappear. Select **Cancel** to return to the *Instant Music* screen.)

Draw Menu — Used to select the guides for entering notes and rhythms, and also for selecting **QuickDraw** patterns and using the **Scale Ruler**.

Set Guides (G): Brings up the **Set Guides** window for selecting pitch guides and rhythm guides.

The **Pitch Guide** area selects the pitch guides for all tracks.

Melody — use a preset melody scale (the most restrictive)

Chord — use only the notes of the current preset chord

Scale — use only the notes of the currently-defined scale (seven notes)

Free — no pitch guides operating; full chromatic scale (12 notes)

The **Rhythm Guide** area selects the rhythmic pattern for the song.

Guided — uses the preset rhythm pattern. The rhythm guide pattern is shown in the **Rhythm Ruler** below the score window only when 1, 2, or 3 measures are displayed.

Quarter, Eighth, and Sixteenth — the checked rhythm operates on all new notes entered into the note screen. **Triplet** can be selected with any of the custom rhythm guides, for example **Quarter** and **Triplet**. When **Triplet** is selected the note will be 2/3 the duration indicated by the custom guide. The rhythm guides determine how many beats are allowed per measure, and the length of the notes you enter.

Multiple/Discrete — If **multiple** is selected, notes of any length that are multiples of the selected custom rhythm are allowed; i.e., a multiple of 1/4, 1/4 triplet, and so on. If **discrete** is selected, notes of only one length are allowed.

**QuickDraw
Patterns
(Z,X,C,V):**

Selects a pattern with which you can lay down a preset pattern of notes.

Select one of the four patterns. Then click the **QuickDraw** button on and draw a line in the score window by pressing the joystick button, dragging the cursor, and releasing the joystick button.

Scale Ruler (R): Brings up a set of markers on the right side of the screen. Not operational in Free mode.

White marker line — the root note (unison)
Long red marker line — dominant note (fifth)
Short red marker line — third (mediant) or seventh
Blue marker line — second, subdominant (fourth), and sixth

The Scale Ruler command also brings up the following on the left side of the work screen:

Keyboard: A mini-piano, with a one-octave range, showing the keyboard equivalent of the note under the flashing cursor.

Note: Shows the letter name of the note currently under the flashing cursor. Both "enharmonic" names are provided for sharp and flat notes (for example, F# / Gb).

Number: Shows the position of the note relative to the root of the chord you are playing in. There is no number in Free mode.

Pitch Guide: M if set to Melody; S if set to Scale; C if set to Chord. There is no Pitch Guide indicator if you are using Free mode.

Rhythm Guide: Indicates which rhythmic mode you are in. G if set to Guided; 4 if set to Quarter; 8 if set to eighth; 16 if set to sixteenth; a T follows the number if Triplet is selected.

Edit Menu — For copying, pasting, and erasing notes; used with Select Button above the score window. If Select is not used, Edit applies to the whole screen.

Erase Color: Erases notes (but not rhythm guides or pitch guides) for the current track in the selected portion of the score window.

Erase All Colors: Erases all notes (but not rhythm guides or pitch guides) in the selected portion of the score window.

Copy Color: Copies the selected notes and rhythm guides.

Copy All Colors: Copies the selected notes, rhythm guides, and pitch guides for all three tracks.

Paste Color: Inserts copied notes and rhythm guides from a single track.

Paste All Colors: Same as Paste Color, but for all three tracks.

You can also use the copy buffer like a clipboard, enabling the insertion of a part of one song into another song. Simply copy the section of a song you want to move. Load the song that you want to paste the section into, then paste the section where desired. Check the song documentation in Appendix B to make sure that the time signature is the same for both songs, or notes may be lost or added. If a time signature isn't listed for a song in the Appendix B documentation, then assume that the time signature for that song is 4/4.

Sounds Menu — For loading different instruments into *Instant Music*. To assign an instrument to a track, select that track, pull down the Sounds Menu, and select the instrument you want.

Jam Menu — for using the joystick as a real-time musical instrument

- Score Rhythm (O):** Jam notes are kept within the pitch and rhythm pattern of the currently selected track.
- Preset Rhythm (P):** Calls up one of nine preset jam rhythms by pressing a keyboard number.
- Free Rhythm (F):** Plays unguided notes using the selected instrument with each click of the joystick button.

When the scale ruler is displayed, Jam response may be affected. Close the scale ruler if this is the case.

Option Menu — Use this menu to set song lengths and perform other special functions.

- Song Length:** Brings up a window where you can specify how many measures in length a song will be. *Instant Music* allows songs up to 32 measures long. Click the up-arrow to increase the number of measures, or click the down-arrow to decrease the number of measures in a song.
- Synthesizer (Y):** Brings up a window where you can customize the sound of instruments. For a full explanation of the synthesizer controls, see Appendix A.
- MIDI (M):** Brings up a window for assigning MIDI (Musical Instrument Digital Interface) output settings. For a full explanation of the MIDI controls, see Appendix A.
- Measures:** Turns the measure lines in the Score Window on and off.
- Control:** Used to select the type of input device used (joystick or mouse).
- Quit:** Exits the program and returns to Basic.

III. Default Guides

Even before you load a song into *Instant Music*, there are guides at work in the score window. The default scale guides are all "chromatic," i.e., no guides. This information is important if you decide to increase the number of measures in an already loaded song. Though the right side of the screen is blank, these default guides are there — but invisible. Pasting a section of a song with guides into this area overwrites the default guides. The default rhythm guides are all whole note guides that serve as "place keepers" until you modify the rhythm.

Glossary of Music Terminology

Atonal: Lacking a traditional key or tonality.

Chord: A group of two or more notes played at the same time. Usually, chords consist of a pattern of successive altered or unaltered thirds (e.g. C7 = C-E-G-Bb; Ddim = D-F-Ab-Cb).

Counterpoint: The interplay between two or more melodies. This often consists of a pattern of consonances ("sweet" sounding intervals) and dissonances ("harsh" sounding intervals), as well as *implied* chords.

Diatonic Mode: An eight-note scale that may begin at any note in a major scale. When playing *just the white keys* on a keyboard instrument, the octave (eight notes) beginning with C is known as the Ionian mode. It is identical to the major scale. The octave beginning on D is the Dorian mode. Other modes include the Phrygian (E), Lydian (F), Mixolydian (G), Aeolian (A), and Locrian (B). *Greensleeves* was written in the Dorian mode. Jazz masters such as Charlie Parker, John Coltrane, and Cecil Taylor have exploited the possibilities of these modes in dizzying variety.

Harmonic Voicing: When arranging a song, you may write a chord in many different ways. For instance, if you are laying C major chords down, you could put C (the *root*) on top (E-G-C), in the middle (G-C-E), or on the bottom of the chord (C-E-G). Each "voicing" has a subtle distinction within the context of a particular measure in a particular song.

Interval: The relative spacing between two notes. For instance, the interval between C and D is a *second*. The interval between C and E is a third, etc.

Jam: To improvise musically with other parts or instruments.

Key: The tonal "center" of a song; also, the tonic note (first note) of a specific scale.

Melody: A group of notes played sequentially (as a tune).

MIDI: Stands for Musical Instrument Digital Interface. A standard that describes music as a series of numbers, and defines standard connections. All electronic musical instruments (like synthesizers and drum machines) that use MIDI can be hooked together.

Octave: The most consonant interval; the eighth tone in a major or minor scale. The interval is so consonant, that each note sounds like a duplication of the other.

Polyrhythm: Multiple rhythms. This term generally refers to two or more different rhythms going on at the same time, such as 1/8 triplets and 1/16 notes.

Progression: A succession of chords or harmonies. For example, a standard 12-bar blues progression is:

C7 / C7 / C7 / C7
F7 / F7 / C7 / C7
G7 / F7 / C7 / C7

Range: For a particular instrument, it is the span from the lowest note that can be played (well) to the highest note. The range for most instruments in *Instant Music* is 4-1/2 octaves; this entire range can be moved up or down an octave with the transposition buttons on the track controls.

Register: An area within an instrument's range. The color of an instrument often varies from register to register. For example, a melody played on the vibes in the low register has a much different effect from the same melody played in a higher register.

Rhythm: Technically, it is the temporal pattern in which musical beats or events occur. It might also be considered as a "melody" independent of pitch.

Scale: An ordered pattern of notes, usually notated in ascending or descending order. Diatonic scales, such as major and minor, consist of eight notes (including the octave). These are the most commonly used scales. The chromatic scale consists of 12 consecutive half tones (the smallest interval in Western music); the whole tone scale consists of 6 consecutive whole tones (e.g.: the interval from C to D or F# to G#). Other scales include the blues scale (C-D#-E-F#-G-A-Bb-C) and the diminished or octatonic scale (C-D-Eb-F-F#-G#-A-B-C).

Synthesizer: An electronic device used to produce sounds unobtainable from ordinary musical instruments.

Transposition: Changing the key of a piece by raising it or lowering it a constant interval. In *Instant Music*, instrument transposition is done up or down one octave; thus, the key is not changed.

APPENDIX A: SYNTHESIZER AND MIDI CONTROLS

Synthesizer Controls

You can use the synthesizer to build custom instruments to suit the mood of your music. With it you can create a wide variety of original sounds. To use the synthesizer, select it from the Option menu (or press Y on the keyboard) and click Load in the window. The synthesizer will operate on the currently selected instrument in the *Instant Music* screen. The pointer still operates on the screen controls, but will not open menus, so you can select any of the three instruments in the current song by clicking on that track control, but you can't assign a different instrument from the Sounds menu.

The Synthesizer can be used with the music playing, so you can hear how the instrument will sound as it plays a particular piece. Or, to build an instrument for a particular octave range, you might draw scales of notes in the desired range using QuickDraw and then build the instrument while the scales are playing. It is especially helpful to hear how the instruments sound playing different octaves and notes of different duration.

When you save the song, your newly created instruments are saved with it and will load when the song is loaded. The instruments cannot be saved by themselves, but by checking your settings with the Number level indicator (described below), you can easily set up the same instrument in another song.

Waveforms — There are four waveforms to choose from across the top of the synthesizer. The waveform in red is the currently selected waveform. To select a waveform, point to it and click the mouse button.

Triangle Wave: This waveform is common to flute, piano, and guitar. A reduced volume is characteristic of this waveform.

Sawtooth Wave: Common to brass and strings.

Pulse Wave: This is a special effect produced by synthesizer instruments and is capable of producing the widest range of instrument sounds. It is basically a wave in two parts.

Noise: A random sound pattern (white noise) useful for percussive effects.

ENV (Envelope Generator) — Used to set the time required for the note to attack and release. To change the setting, point to the lever, press the joystick button, move the pointer up or down as desired, and release the joystick button.

A: Sets the attack time — the rate at which the volume rises from zero volume to full volume.

R: Sets the release time — the rate at which the volume falls from full volume to zero volume.

Freq (Frequency Modulator) — used to set the rate and depth of the modulation of pitch — the raising and lowering of the pitch in a "vibrato" manner. Modulation is a particularly important characteristic of string and brass sounds.

- R: Sets the rate of the modulation — how rapidly the pitch rises and falls to create modulation.
- D: Sets the amount of modulation — the degree to which the pitch rises and falls from the central pitch.

Pulse — Used to set the rate, depth, and value of the pulse (applies only to a pulse wave)

- R: Sets the rate of the pulse modulation
- D: Sets the depth of the pulse in the wave
- V: Sets the ratio between the two halves of the pulse wave

Instrument Name — Used to name your customized instrument. You should name the instrument something different from the instruments that appear in the Sounds menu to avoid confusion later.

Test Button — Emits a single tone so you can hear the instrument's settings in isolation instead of as part of a song. Point to the test button and click the joystick button to sound the test tone.

Number level indicator — Displays a number value for the lever most recently used. To see the number value for any particular lever, simply place the pointer on the lever and click the joystick button. The number indicator will be updated to show the number value for the setting of that lever. Since you can't transfer custom instruments between songs, when you create an instrument you especially like, you should write down the settings to be used elsewhere. Once you get the hang of it, setting an instrument will take just a few seconds.

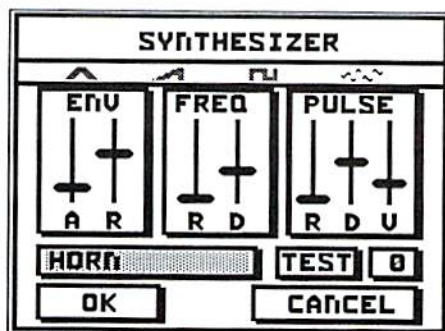


Figure A.1 The Instant Music Synthesizer

MIDI Controls

The MIDI capabilities of *Instant Music* let you hear your compositions in very high quality sound. If you own a MIDI instrument, we highly recommend that you hook it up to your Commodore to use *Instant Music*. The results are well worth the cost of the interface. (Note: The MIDI output of *IM* has been tested with Passport and Dr. T's MIDI interfaces. If your MIDI setup does not work as we describe, check the interface in addition to consulting your MIDI instrument's manual.)

Track Assignments (1, 2, 3) — these work much like the track controls. The highlighted track number is the track to which the Channel and Preset values apply (1 is the green track, 2 red, and 3 blue). Click the button to activate a track, then assign the appropriate Channel and Preset values as explained below.

Channel — Used to set the channel on which the output signal will be transmitted. There are sixteen channels. Click the box to select it and use the arrows to change the value.

Instant Music will transmit the music on separate channels, but you must set your MIDI instrument to play three separate voices (multi-timbral mode), or all of the notes will be played by one voice. On the Casio CZ101, this is done by pressing the key labeled MIDI and then pressing the key labeled Solo. You are now ready to set your MIDI instrument to play a different voice on each channel. See your Casio manual for details.

Preset (number) — Used to set the Preset to be used when playing the track. There are 128 presets. Consult your MIDI instrument documentation for information about particular presets, since the preset value assigned to any particular voice varies among MIDI instrument brands. It will help if you become familiar with how your MIDI instrument handles presets. The Preset for each track has been set to the value appropriate for a Casio CZ101. If you want to change a Preset value, select the track you want to change, click the box beside Preset to select it, and click the arrows to change the value.

Note: If the song you are playing contains short notes and the instrument you select on your MIDI device has a long attack time, you may not hear the full note played. You can work around this either by assigning an instrument with a faster attack time, or by slowing down the tempo of the song.

Presets (button) — Activates the Preset numbers to be sent along with the other MIDI information. This button always defaults to "selected" (highlighted yellow), and the Preset numbers are sent. When Presets is not selected, no preset number is sent by *Instant Music*, and the MIDI instrument will play whatever instrument is assigned to the channel on which the music is sent. Thus, you can change the instrument assigned to a channel while the music is playing. Click Presets to deselect it (highlighted gray).

Clear — Returns both Channel and Preset settings for all tracks to 1.

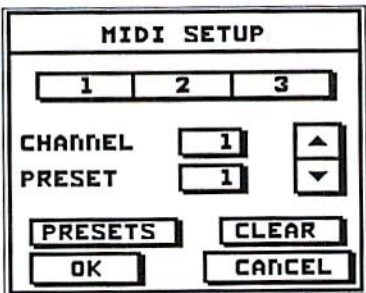


Figure A.2 MIDI Settings window



Other MIDI Tips

Layered Sounds: If you connect the sound output from C-64 to your stereo, boom box, or other amplification equipment, you will immediately have better quality sound. Also, you can set the C-64 and MIDI to play at the same time and thus build layered instruments. For example, you could have a synthesizer voice set to play on the C-64 and a string instrument set to play on your MIDI instrument to create a layered synth-string sound unobtainable with the C-64 or synthesizer alone.

MIDI Clock Sync: *Instant Music* sends out a MIDI sync signal that allows a drum machine or other MIDI device with sync capabilities to play in time with *Instant Music*. *Instant Music* also controls the start and stop of the synchronized instrument. To do this, enable your MIDI device to accept sync signals from *Instant Music* (refer to your MIDI instrument documentation). To change drum patterns or tracks, you may have to turn off MIDI sync. This will depend on the particular drum machine.

APPENDIX B: INSTANT MUSIC CONCERT NOTES

Below is documentation about all songs provided with *Instant Music*. The information contained here is for advanced users who have a working knowledge of standard music notation and chord structure. Included are the chord progressions for every song, as well as notes about most of the songs. Ideas are also included on how to improvise with this song. Some of these ideas might be thought of as "global strategies," which you can also use elsewhere in *Instant Music*. Global strategies are marked with an asterisk (*).

Some Common Chord Progressions

Here are some common chords with C as the root.

C	= C major	= C-E-G
Cm	= C minor	= C-Eb-G
C7	= C dominant seventh	= C-E-G-Bb
Cm7	= C minor seventh	= C-Eb-G-Bb
Cdim	= C diminished	= C-Eb-Gb
Cdim7	= C diminished seventh	=C-Eb-Gb-Bb

The next list contains chords which are more common in jazz than in rock and roll. If you are interested in the spellings of 11th and 13th chords, consult a jazz textbook.

C ^o 7	= C half diminished	= C-Eb-Gb-Bb
C7-5	= C seven, diminished fifth	= C-E-Gb-Bb
C7+5	= C seven, augmented fifth	= C-E-G#-Bb
C9	= C ninth	= C-E-G-Bb-D
Cm9	= C minor ninth	= C-Eb-G-Bb-D
Cmaj9	= C major ninth	= C-E-G-B-D
C-9	= C diminished ninth	= C-E-G-Bb-Db

Chord Progressions Used in Instant Music Songs

Rock Songs

1962 Fun: This two-chord progression is perfect for composing melody after melody. Build your own wall of sound! *Try alternating a sustained accompaniment for one or two iterations of the tune with a rhythmic background.

||: G | G | Em | Em :||

Beau Bop: Here is a classic rock progression in a 3/4 rhythm. *Try writing a bass solo to play off the piano solo.

||: C | F | G7 | F :||

C Minor Jive: Driving rhythm, pure and simple. In our version, guitar and bass are used in a percussive manner.

Cm | Cm | Cm | Cm
Cm | Cm | Cm | G
||: Cm | F | Cm | F :||

Eighties Pop: Note the variations on a theme in the melody and bass lines of this piece.

||: C | Am | C | Am :||
F | G | F | G

Fifties Fantasy: A number done in the classic fifties pop song progression and style. This song is one of many *Instant Music* songs that can change drastically in mood with sharp shifts in tempo.

||: C / Am / | Dm7 / G7 / :||
C / Am / | Dm7 / G7 /
C / F / | C / / /
F | Fm | C | C7
F | Fm | D7 | G7

Frisco Vice: *Experiment with different instrument combinations.

A7 | A7 | C7 | C7
D7 | D7 | E7 | E7

Good Groove: Relive Woodstock with this one!

C7 | F | C7 | F
C7 | F | C7 | C7
F | F | C7 | F
C7 | F | C7 | C7

Hey You: Turn this song into a 12 or 16 measure opus with the Copy and Paste commands.

C / / / | Bb / F /

Jamaican Jam: This song contains a standard reggae accompaniment. An interesting compositional technique to try here is a rising melody against the descending bass. Instant Bob Marley!

Am | Am | G | G
F | F | E7 | E7

Lounge Lizard: Lounge Lizard has a nifty bass pattern.

||: C | C | C | F :||
Am | Am | F7 | G7

Metallic Dream: An awesome jam song for you Twisted Sister fans.

Am | Am | Am | Am
G7 | G7 | Em | Em
D | D | C | C
Bm | Bm | E | E

Night Life: Here is one of the most rhythmic tunes in *Instant Music*. *Jamming with the bass is particularly effective in this tune.

Em7 | A7 | Dmaj7 | Bm7
Em7 | A7 | Dmaj7 | Dmaj7

Night Out: Note the use of the chorus voice in the melody for this piece.

||: D7 | D7 | D7 | C7 :||
D7 | D7 | D7 | C7
C7 | C7
||: D7 | D7 | D7 | C7 :||
C7 | C7

Popsicle: Sure to cure the worst case of cold feet.

||: Bb7 | Bb7 | Eb7 | Eb7 | F7 | F7 :||

Rock Chorale: The asymmetric meter of 5/4 only serves to underscore the simplicity of the basic structure in this song. The two chords in this number form the basis of many great songs such as *Layla*, *You Can't Always Get What You Want*, and the chorus in *You've Got to Hide Your Love Away*.

||: C | F :||

Rocking Flight: This one's sure to get you moving.

E7 | D7 | G7 | F7 / B7 /

Samba: Written by Dan Silva (creator of *DeluxePaint*). This song features a hot percussion combo. Samba's progression is a perfect example of the "circle of fifths"; A-D-G-C-F[#]-B-E.

Am7 / D7 // Gmaj7 / Cmaj7 /
F[#]7 / B7 // Em / E7 /

Skiffle: This song illustrates the use of the skiffle rhythm, coupled with a great progression and descending bass line. *Try changing the accompanying rhythm in the blue voice.

||: C /// | Am /// | F /// | Dm / G7 // :||
Em | F | Em | A7
Dm7 /// | G7 /// | C / F // | G7 ///

Jazz/Blues Songs

Boogie Woogie: Boogie woogie is a classic style of blues improvisation. This is one of three blues "templates" provided with *Instant Music*. These numbers benefit greatly from finessing parts of the solos in free mode, thus accessing all of the "blue" notes.

F7 | F7 | F7 | F7
Bb7 | Bb7 | F7 | F7
Cmaj7 | Bb7 | F7 | F7

Jazz Blues: An arrangement of a classic jazz blues progression. What is the red voice doing?

Eb7 | Eb7 | Eb7 | Eb7
Ab7 | Ab7 | Eb7 | Eb7
Bb7 | Ab7 | Eb7 | Eb7

Jazz Waltz: Jamming with the counter melody (Red Voice) is especially rewarding in this song. This song illustrates one of many variations on a blues progression, using tonic major seventh chords instead of dominant sevenths.

Abmaj7 | Db7 | Abmaj7 | Ebm7 / Ab7
Dbmaj7 | Dbm7 | Cm7 | F7-9
Bbm7 | Eb7 | Abmaj7 | Abmaj7

Jeneric Jazz: This song has been especially designed for jamming in the scale mode.

Fmaj7 | Bb7 | Fmaj7 | Cm7 / F7+5
Bbmaj7 | Bbm7 / Eb7 // | Am7 | A7-5
G^o7 | C7-9 | Fmaj7 / Abmaj7 // | Dbmaj7 / C /

Rock Blues: The 12-bar blues features a piano quartet in a rocking rhythmic arrangement. This is an excellent song to use the Quickdraw command. Click on the sixteenth note rhythm guide (for four notes per quarter beat) and enter notes in Chord mode. Now, use the lower-right Quickdraw pattern (resulting in a triplet rhythm). A polyrhythmic effect results when you paste down a line.

C7 | C7 | C7 | C7
F7 | F7 | C7 | C7
G7 | F7 | C7 | C7

Folk Songs

Barn Dance: This tune is perfect for a gradual accelerando — slowly raise the tempo bar at each verse and chorus. *Try duping the song and compose variations on the tune and counter melody.

A /// | G / Em G
A /// | G Em A /

Cajun: A spicy song in the style of traditional Cajun music.

A | A | A | A
A | A | E | E
E7 | E7 | E7 | E7
E7 | E7 | A | A

Rosin the Bow: A traditional folk tune and all-round great drinking song.

E | E | E | A
E | E | E | B
E | E | G#m | A
E | B7 | E | E
E | E | A | A
E | E | A | B
E | E | G#m | A
E | B7 | A | E

Hornpipe: Well blow me down — if it isn't the renowned Irish fiddle tune.

||: G | G | A | D
G | C / A | D | G :||
G | C | A | D
G | C / A / | D | G

Classical Songs

Anitra's Dance: An excerpt from the *Peer Gynt Suite* by Edvard Grieg (1843-1907). Anitra's Dance is styled as a classic mazurka — a waltz rhythm with a strong third beat.

Am | Am | Am | Am
Adim7 | Adim7 | F | B
||: B ped | B ped :||
Em | Em | Em / B7 | Em

Bach's Joy: From the cantata *Jesu, Joy of Man's Desiring* by Johann Sebastian Bach (1685-1750).

G | Em | Am | D7
G | Am | Am C#dim D7 | G
G | D | C | D7 | D7
G | Em | C D7 /
G | Em | Am | D7
G | Em | Am C#dim D7 | G / C#dim
Dm / E7 | Am7 | Dm / E7 | Am
Dm / E7 | Am | Am | Dm / E7
Am

Bouree: Many of the suites by J.S. Bach were collections of dance music. A bouree is a French 17th-century dance, with a quick duple (two-step) meter and a single upbeat.

Em / B7 // | G B Em // | G /// | B7 / Em /
Em / B7 // | G / Em // | G / D // | G ///
D / G // | E7 / Am | E7 /// | Am / D7 /
G / E7 // | Am / D // | Bm / F#7 // | B ///
E7 / A7 // | D7 / G7 // | C / F#m // | B7 // E7
Am / G // | F#m / Em // | B7 /// | Em ///

Mountain King: Another excerpt from Grieg's *Peer Gynt Suite*. This haunting theme was whistled by Peter Lorre in Fritz Lang's *M*.

||: Am | Am | Am | C :||
||: E | E | E | E :||

Sabre Dance: Here we have Aram Khachaturian's memorable and exciting number from the Gayne ballet.

||: Gmaj7 --> Bb7 :||

Miscellaneous Songs

Greensleeves: The well-known traditional English ballad. It is written in the Dorian mode.

Key of G major
Am C | G Em | Am D | G Em
Am C | G Em | Am Em | Am
C | G Em | Am D | Em
C | G Em | Am Em | Am

Frere Jacques: Here is the first of three rounds on *Instant Music*. After a bit of experience with *Instant Music*, you will find that composing original rounds could not be easier. First, decide how many measures you want the melody to be and display only that number of bars on the screen. Then, compose a melody, perhaps using your own variation of one of the following rounds. Third, copy the color with the melody and scroll one or two measures to the right. Select another instrument, paste onto it, and repeat the process. If, after hearing the result, you are not happy with the melody, just start from the beginning.

Jacques Deluxes: This song is also a round. Fully orchestrated and arranged, everything is as it should be--well, almost. The key has been changed from Eb to Eb minor. Look at the blue voice up close — *quick changes in octave result in interesting color modulations without changing the instrument. The methods of varying simple melodies in breathtaking ways are endless.

Le Grand Waltz: This song is reminiscent of French pop music from the 1960's, in the style of Yves Montand and Michel Legrand.

||: Am7 | D7 | Gmaj7 | Cmaj7
F | Dm7 | Esus4 | E :||
A | Em | A | Em
A | G | D | E

Long Time Ago: An innocent song.

C | Am | Dm7 | G7
Cmaj7 | Am7 | Dm7 | G7
F | F | Cmaj7 | C7
F | F | G7 / Ab7 / | G7

Row Your Boat: Another popular round. Interesting to note is the symmetrical pattern of notes on the screen. How does the graphic form of the song onscreen relate to its aural form?

Comin' Round: This traditional American song offers a perfect opportunity to sharpen one's arranging chops. A clear harmonic background, familiar melody and counter-melody.

F | F | F | F
F | F | C | C7

F | F6 | Bb | G
C | C7 | F | F

Progressions

The following 22 chord progressions offer you the chance to explore music making under somewhat more controlled and focussed conditions. *Combine your favorite arranged progressions (or even individual tracks for that matter) into a full-fledged song. *Keep a disk of your own progressions, snippets, and works-in-progress.

Rock One: C / F / | G / / /

Rock Two: Dm / C / | Bb / / C

Rock Three: Similar to *House of the Rising Sun*

A / / / | C / / / | D / / / | E / / /

Rock Four: G / / / | Bb / / / | C / / / | G / / /

Rock Five: F / / / | G / / /

Rock Six: Bb / / / | Ab / / /

Rock Seven: Same progression used in *Jamaican Jam*. First used more than three centuries ago, this progression was also used in *So Happy Together*.

Am / / / | G / / / | F / / / | E7 / / /

Rock Eight: A very popular progression, it formed the basis for *Baba O'Reilly*.

F / / C | Bb / / /

Rock Nine: The standard fifties progression.

C / Am / | F / G7 /

Rock Ten: A popular progression that is probably best known as the introduction to The Beatles', *Michelle*.

Dm / Dm/C# / | Dm/C / Dm/B / | Bbmaj7 / / / | A7 / / /

Rock Eleven: Cm / Cm7 / | Abmaj7 / G7 /

Rock Twelve: This song uses the same progression as The Beatles', *Dear Prudence*.

C / C7 // Am7 / Abmaj7 /

Rock Thirteen: G / Bm // C / D /

Rock Fourteen: Used in *Summer Loving* from the movie *Grease*.

D / G // A / G /

Jazz One: A standard progression utilizing the circle of fifths.

Em7 // A7 // Dm7 // G7 //

Jazz Two: Used in *Day by Day*.

Fmaj7 // Bbmaj7 //

Jazz Three: Ebmaj7 // C7 // B7 // Bb7 //

Jazz Four: Gmaj7 // Bbmaj7 // Ebmaj7 // D7 //

Jazz Five: Every two measures modulates down one half step.

Dm7 / G7 // Cmaj7 // C#m7 / F#7 // Bmaj7 //
Cm7 / F7 // Bbmaj7 // Bm7 / E7 // Amaj7 //

Jazz Six: F#m9 // Gmaj9 //

Jazz Seven: Dmaj // Eb⁹7 // Em7 // A7 //

Jazz Eight: Amaj7 // Bbmaj7 /

APPENDIX C: SUMMARY OF KEYBOARD SHORTCUTS

Note: Keyboard shortcuts should not be used when using a mouse. Do not hold down the joystick button while using keyboard shortcuts.

Screen Control Shortcuts

Spacebar	Starts and stops the music
F7	Toggles jamming on and off
F1	Selects the green instrument
F3	Selects the red instrument
F5	Selects the blue instrument
Q	Toggles Quickdraw on and off

Menu Command Shortcuts

Z,X,C,V	Select the Quickdraw patterns
L	Brings up the Load window so you can load songs from disk
S	Saves the loaded file to disk under the current file name
G	Brings up the Set Guides window for selecting pitch and rhythm guides.
R	Opens and closes the Scale Ruler
O	Selects Score Rhythm
P	Selects Preset Rhythm
F	Selects Free Rhythm
Y	Brings up the Synthesizer for customizing instrument sounds
M	Brings up the MIDI Settings window
Shift-C	Brings up the Control window for selecting joystick or mouse. Pressing Return automatically selects mouse.

Jamming Shortcuts

O	Selects Score Rhythm
P	Selects Preset Rhythm to use the number keys 1-0 to jam in preset rhythms
F	Selects Free Rhythm
F1	Selects the green instrument
F3	Selects the red instrument
F5	Selects the blue instrument
↑ (Shift-cursor key)	Raises the pitch for all tracks a half step. Changes the sound, not the display.
↓ (cursor key)	Lowers the pitch for all tracks a half step if the pitch was raised using the up arrow cursor key.
↔	Resets the pitch for all tracks to the normal setting.

It's Only Rock 'n' Roll!

Introduction

Welcome to **It's Only Rock 'n' Roll!** These extra twenty-five songs have been added to your disk to offer extra jamming and composing opportunities. You're sure to find some favorite riffs and progressions among these songs.

We've broken down the various periods of rock & roll into eight broad categories:

Drawer Title	Contents
Memphis 1956:	Early 50's rhythm and blues, early rock
Philadelphia 1959:	Late 50's pop and early 60's beat
Detroit 1962:	The Motown sound
Chicago 1965:	Rock blues
San Francisco 1968:	The SF sound, acid rock
Los Angeles 1971:	Heavy Metal
London 1974:	Progressive rock
New York 1977:	New Wave

As you look through the songs we've grouped under each of these categories, you will find that the categories are very broad and contain songs that don't quite fit the title. For instance, we included the surf music of California in the 1960's under (gulp) Philadelphia 1959. And, though many metal bands came from California, some of the finest were British, as were many of the bands that led the way to heavy metal (Cream, for instance). Moreover, progressive rock can be traced to the Beatles' *Sgt. Pepper's Lonely Hearts Club Band* of 1967, while in 1986, we have still not seen the end of "art rock." So, think of the category names as loose tags which should indicate a musical feeling, rather than a strict period in the development of rock. You will find an essay introducing each category and setting the group of songs in its historical context.

The interactive composition tools of **Instant Music** are perfectly suited to the creation of almost any kind of music — on the spot.

And if you find yourself just jamming in **Instant Music**, lean back and enjoy.

Memphis 1956

Rock and roll began as a street rebellion against the pretentiousness and hypocrisy in Fifties society, establishment pop, and high art in general. "Roll Over Beethoven" by Chuck Berry epitomizes the feelings rock fans had for classical music at the time. In the middle of the Eisenhower era, the Cold War, and McCarthyism, rhythm & blues (formerly called "race records" because black musicians created the music) were being bought in unprecedented numbers — and by white teenagers. Rock and roll was born when white America discovered rhythm and blues.

In the beginning there was Chuck Berry. And he was good — *very* good. Considered by many to be the greatest rock and roller ever, he synthesized country and western music and the blues tradition into a unique sound that has been imitated by bands from the Beatles to the Beach Boys. His palette of guitar riffs came to define what rock and roll was all about.

While Berry's first #1 hit came in 1955, Elvis Presley made his big splash one year later. He had begun recording at Sam Philip's tiny Memphis studio in 1954; at Sun Records, Elvis developed his rockabilly sound that took the world by storm. In 1956 he had five number 1 hit records. Presley's song "Heartbreak Hotel" topped the Country and Western, Rhythm and Blues, and Pop charts simultaneously. Two years later, Billboard initiated its Hot 100 chart, thus eliminating all the obsolete categories. Rock and roll was a synthesis of all of these styles.

1. Baby, Baby, Baby

A7 | A7 | A7 | A7 D7 | D7 | A7 | A7 E7 | D7 | A7 | A7

2. Let's Go Out

Ab / Fm / | Db / Eb7 /

3. Memphis City


F7 | F7 | F7 | F7 Bb7 | Bb7 | F7 | F7 C7 | Bb7 | F7 | F7

Philadelphia 1959

In the late 1950's, the music industry began to mature. Rock went through some tragic growing pains in 1959 with the death of Buddy Holly (memorialized in the song "American Pie" by Don McLean). In this same year, Chuck Berry was convicted under the Mann Act of transporting a minor across state lines for immoral purposes, Alan Freed was fired by ABC when the federal government stepped up its investigation into disk-jockey payola, and Elvis was still in the army.

Buddy Holly and the Crickets institutionalized the four-piece band we have all come to know and love. Holly was also the first rock artist to play, almost exclusively, original material, instead of covering well-known R&B tunes. He entered the production process itself and did his own arrangements.

In addition to Holly, one other figure was pivotal during the maturing process rock was going through. Bridging the early period of rock and that which was to come in the 1960's was the powerful presence of Phil Spector. He brought us the "Wall of Sound." Using multitracking and other techniques, Spector assembled armies of musicians to get the exact result he wanted. His records were the loudest recordings the rock world had yet heard. Phil Spector began producing hits at the age of 19; three years later he had racked up 20 of them. He was a millionaire at the age of 21. After a record of his flopped, Spector retired — he was 25.



The early 1960's marked the beginning of a number of dance crazes spreading across the US. The Twist was the first big one in 1961. Others, maybe not so memorable, included the Alley Cat, the Limbo, the Locomotion, and the Mashed Potato.

California beach music had its roots in this era. Formed in 1961, the Beach Boys began their string of national hits in 1962 with "Surfin' Safari." This group almost single-handedly created California rock; their songs dealt primarily with an idealized west coast teenhood, which was composed of equal parts surfing, fast cars, and dating. Musically, the Beach Boys emphasized tight vocal harmonies, classic R&B guitar licks, and a growing fascination with studio recording tricks.

1. Tighter

E | C#m | E | C#m A / B7 / | E | A / B7 / | E

2. Cowabunga

||: E7 | E7 | A | A :|| ||: F | G | A | A :||

3. Prom Night

C | C | Am | Am F | F | G7 | G7

4. Another Night

Detroit 1962

The early 1960's saw the rise of one of the most successful recording studios ever: Motown Records. The brain-child of Berry Gordy, it was the first major black-owned and black-operated label.

What Gordy managed to do was fuse gospel music and pop lyrics — and he did it very well. In 1966 (the midpoint of Motown's Golden Decade, 1962-1971), 75% of all the records released by Motown made the charts. One reason for the huge popularity of the Motown sound, for better or for worse, was the assembly line production process and its reliance on standard formulas. In this respect, Motown's method was similar to the studio system in Hollywood during the 1930's and 1940's.

A major key to Berry Gordy's success was the songwriting team of Lamont Dozier, Brian Holland and Eddie Holland, as well as other writers such as Norman Witfield. Added to Motown's roster of artists was a magnificent collection of the finest black and white studio musicians; they made the music really live. James Jamerson and Carole Kaye put down some of the most legendary bass lines ever heard.

Concurrent with the rise of Motown was the rise of soul music at Atlantic record and the business of soul music was salvation. Soul music showed a stylistic purity and down-home approach coupled with a distinct church feel. It is a singularly optimistic and good-hearted music. The major soul artists who recorded in the mid-sixties were Solomon Burke, Wilson Pickett, Joe Tex, Aretha Franklin, and Percy Sledge. Percy Sledge's 1966 hit, "When a Man Loves a Woman" possesses the quintessential soul sound: soaring vocals and church organ.

1. Higher

Am | Am | Am | D

2. Slow and Soulful

||: G | Em | C / D7 / | G C G D7 :|| Em / A / | Em / A / | C / D7 / | G / B7 /
Em / A / | Em / A / | C / D7 / | G C G Am7

3. Papa Was: This arrangement pits a rock steady rhythm section against the syncopated green and red voices.

4. Funky Blues

Dm | Dm | Dm | Dm Gm | Gm | Dm | Dm Am | Gm | Dm | Dm

5. Saint Soul

||: Em | D | G | D Bm7 | Cm7 | Bm7 | E9 Am7 | D7 | G | G :||
Em | D | Em | D Em | D | C | Bsus4 / B /

Chicago 1965

The Rolling Stones, formed in 1962, was the first broadly popular and musically effective British blues group. Brian Jones began playing blues guitar in 1960; the Stones later grew out of a trio Jones had started called Blues, Inc.

After their early success, a number of blues bands started up in the U.K. Probably the best of these was the Yardbirds, who at one time or another, featured Jeff Beck, Jimmy Page, and Eric Clapton. It was Clapton who left to join John Mayall's Bluesbreakers. In 1966, he formed Cream with Ginger Baker and Jack Bruce.

American folkies were quite suspicious of a white musician playing the blues. They worshipped "Authenticity." Ignoring all of this were two white kids from Chicago: Paul Butterfield and Michael Bloomfield. Butterfield had grown up in Chicago listening to and learning from many of the resident bluesmen including Muddy Waters. His band, the Paul Butterfield Blues Band, was committed to playing their material as faithfully as possible. Fellow Chicagoan Michael Bloomfield learned to play blues guitar and piano by backing older local bluesmen. Joining Butterfield's band, Bloomfield later turned down an offer to join Bob Dylan's band, though the group backed Dylan at the infamous Newport Folk Festival in 1965.

1. Mellow in Minor

Fm (Bb) | Fm | Fm | Fm Bbm (Eb) | Bbm | Fm | Fm C7 | Bb | Fm | Fm

2. Get Down

F7 | F7 | F7 | F7 Bb7 | Bb7 | F7 | F7 C7 | Bb7 | F7 | F7

3. Boogyin'

F7 | Bb7 | F7 | F7 Bb7 | Bb | F7 | F7 Eb7 D7 Ab7
G7 | C7 | F7 Eb7 D7 Ab7 | G7 Db7 C7 Gb7

San Francisco 1968

The San Francisco sound is representative of a number of forces that began to impinge upon rock music in the 1960's. From recording technology and drugs, to the anti-war movement and its whole social atmosphere, the music of this era embraced everything. Rarely has there ever been a musical period as spontaneously creative and experimental as the second half of that decade.

The lyrics were light years away from those of songs written just a few years earlier, e.g. "I met him on a Monday and his name was Bill. / Da doo Ron Ron Ron da doo Ron Ron." In John Lennon's "I Am the Walrus," the influence of LSD on the lyric content was practically unmistakable. Drugs influenced both ends of the creative process — writing *and* listening.

Musically, many barriers were disappearing. By this time, the Beatles had pretty much laid to rest the 32-bar pop standard form. "Revolution" contains the odd 2/4 measure thrown into a predominantly 4/4 meter. The Grateful Dead were to carry this trend to the nth degree. Different instruments were being used for the first time; George Harrison of the Beatles and Brian Jones of the Rolling Stones introduced the rock world to the sitar, a traditional Indian stringed instrument. And electronic sounds were being exploited for their possibilities as fast as technology could churn them out.

The influence of rapidly advancing studio technology is inestimable; after all, a band could do in a studio what would be impossible in concert. The Beatles retired from concertizing in 1966 to work and record exclusively in Parlophone's Abbey Road studio.

1. Shades of Blue

C7 | C7 | C7 | C7 F7 | F7 | C7 | C7 G7 | F7 | C7 | C7

2. Lady

Am | D


3. Where

Am | G | F | E7

Los Angeles 1971

With names like Blue Cheer, Blue Oyster Cult, Deep Purple, Black Oak Arkansas, Black Pearl, and of course, Black Sabbath, heavy metal burst on the rock scene in the late sixties. Given the numerous musical sub-trends that were developing in the middle of the decade, it was perhaps inevitable, maybe even necessary, that this phenomenon should spring into being.

The precursors to heavy metal were some of the famous British bands of the mid-sixties: the Who, the Yardbirds, and Cream. These bands played *hard* rock. The music was loud, aggressive, and often featured virtuoso guitar players. These were innovative groups, greatly enlarging the world of rock blues.



The first mutterings of heavy metal were heard in California around 1968 as Blue Cheer, Black Pearl and Iron Butterfly appeared on the scene. They were at once post-psychedelic, post-Hendrix and very experimental. Iron Butterfly was most known at the time for its 17-minute cut, "In-A-Gadda-Da-Vida," which featured a 2 1/2 minute drum solo. Blue Cheer, named for an especially high-powered strain of LSD, came out of the acid rock mecca of San Francisco.

But it was Britain that proved to be the source of one of history's most popular rock groups: Led Zeppelin. This was the band that finally replaced the Beatles as the most popular group in the U.K. and went on to define what heavy metal was all about. Yes, they were loud, and yes, they dealt with many of the subjects which caused heavy metal to be so roundly criticized (satanism, among others). But out of all the heavy metal bands to emerge, Led Zeppelin's sound had *finesse*. Through the music sensibility and production skills of ex-Yarbird Jimmy Page, Led Zeppelin was simply the best at what they did. Nobody used distortion as well or in as many varied ways as Page, with the sole exception of Jimi Hendrix.

1. Dark Invader: This song is heavily layered and much of its unique sound is accomplished by abandoning guides. You'll notice that some measures have no chord guides.

London 1974

This category concentrates on progressive and art rock. Though most of the performers in these camps flourished in the 1970's, this movement had its roots in the 1960's with much of what the Beatles did. From *Sgt. Pepper's Lonely Hearts Club Band* through *Abbey Road*, their music took the definition of rock and roll to its limit, and then some. Compare two songs written just a few years apart: "I Saw Her Standing There" and "Revolution 9." While the former is a classic rock & roll tune, the latter is a tape collage with absolutely no reference to a key or blues base. Self-consciousness was beginning to insert itself into the creative process.

Art rock often parallels, parodies, or imitates other "higher" art forms. For reasons beyond the scope of this essay, many of the bands that used classical music as their primary inspiration came from Britain: the Nice; Emerson, Lake, and Palmer; Rick Wakeman; Renaissance; and Yes. Musically speaking, their classical imitations and mythological epics were of questionable success, and did not always rise above their own pretentiousness.

But some genuinely creative work was appearing nevertheless. Rock operas like *Tommy* were not constrained to just quote the classics. Various non-rock styles were used to great success by many bands (e.g. the use of Middle Eastern scales in Led Zeppelin's "Kashmir"). Moreover, the move toward incorporating music of all types and from all cultures was gaining ground through the efforts of Roxy Music, Genesis, David Bowie and King Crimson. Shifts among wholly different styles of music became common, coupled with tempo and volume modulations. Frank Zappa is a master of creating varied musical collages.

But is any of this really rock? Strictly speaking — we won't say. But compositions such as "Revolution 9" were written with a rock sensibility and were aimed at a rock audience. The overly ornate examples of progressive rock were eventually rejected, and thus began new wave primitivism.



1. Courtly Circumstances

Dm / Dm7 | Bdim / Bb7 /

2. All Here

Cm7

New York 1977

All in all, 1977 was a great year for records; the Sex Pistols, the Talking Heads, Elvis Costello, the Clash, and the B-52's all released their first albums. The Sex Pistols made what was to be their first and last tour of the U.S. Punk rock was off and running, and new wave was not far behind. The music that was emerging from Manhattan clubs such as C.B.G.B.'s (Country, Blue Grass, and Blues) had been gaining attention since 1975; the bands playing these downtown venues included Patti Smith, the Ramones, Television, and Blondie.

Much of this music existed in direct opposition to the predominantly British "progressive" rock scene, which was, perhaps, a tad overblown. New Wave proclaimed that art did not necessarily imply complexity or virtuosity. To those raised on the smooth harmonies of the late Beatles and Genesis, as well as the pyrotechnics of Emerson, Lake and Palmer, the raw and out of tune sounds of bands like Devo and the B-52's must have sounded like armageddon.

So much of what became a major outpouring of original music in 1977 can be traced back to the work of one band created in New York in 1965: the Velvet Underground, featuring Lou Reed and John Cale. This band nurtured the new wave sound, with its commitment to primitive sound, bizarre lyrics, and fascination with other media.

1. Not A Piano

Em / D / | Cmaj7 / D /

2. Odeon

Dm7 | Dm7 | Cm7 | Cm7 F7 | F7 | G7 | G7

3. Underground

C | C | Am | G

4. Synth Head

Gm - F

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