

CUE

The Film Music System

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The Concept Behind CUE

Once upon a time, in the land of Faraway, there lived a young writer who more than anything wanted to fit his music to moving pictures. He wrestled with this problem until one day the news came of a great sorcerer-composer who freely shared these secrets. Immediately, he set out for the town of Holy-Wood where this master lived, taking only his lute, a ream of writing paper, and his massive desire to learn.

Our novice finally met the old Composer-Sorcerer, but unfortunately matters still did not improve. Upon first seeing The Click Book, a volume so large it was sold with a team of yaks, our hero was overwhelmed. Inside this massive tome was page after page of indecipherable numbers which the Composer-Sorcerer referred to as Clicks, and these he told the apprentice were the secret of making music conform to picture.

The Sorcerer hated dealing with the cumbersome Click Book. It was time-consuming, boring work that he longed to be freed from. This apprentice's arrival seemed a gift from the musical gods. Although not an evil man, the Sorcerer saw the young apprentice as a means to free himself forever from the eternal Click Search.

Under the guise of necessary training, the Sorcerer was preparing to consign his new apprentice to a lengthy stint in the Click Dungeon when a sorcerer colleague from the Valley of Silicon took pity on our hero and conjured a device that made searching for correct tempos a much more civilized pursuit.

This program is the result. It is meant for old sorcerers, young heroes and anyone in-between.

The intention of **CUE** is to be a powerful tool for both the composer and the music editor. There seemed to be a need for something that would enhance the collaboration between these two related fields. By creating a shared working medium, we build a bridge over which much information may easily cross in both directions. In fact, with all the MIDI implementations, the synthesist is also linked into the same process.

CUE's aim is to automate every task that takes time away from the creative process.

- It provides Spotting Notes
- It creates Cue Sheets
- It permit's entry of timing points directly from video with a single keystroke
- It lays out a Title Page with your logo
- It converts a tempo tapped out on the mouse into proper click information
- It searches Click Tempos
- It allows you to program accelerandos and ritards
- It displays a musical graphic useful for laying out meter changes
- It lays out and prints custom Score Paper
- It is a stop watch for grabbing cue points on the fly
- It contains a click book that can appear in different time and tempo formats
- It rescales your Cue Sheet to compensate for an off-speed picture or late edit's
- It lets you follow existing material and hand-tap a complete click track
- It creates a film's Master Cue List or "Bible"
- It generates the Performing Rights Cue Sheet
- It contains a time and tempo Conversion Table

CUE also performs some important performance related tasks:

- It locks to Midi Time Code
- It generates MIDI Event Triggers
- It plays the selected click (including all meter and tempo changes)
- It lets you output this click with either accented or unaccented downbeats
- It instantly dumps it's click track into various sync boxes
- It displays Streamers and Punches for conducting without a click track
- It outputs a MIDI clock and can receive a MIDI start signal
- It commands the generation of SMPTE
- It creates MIDI Files that can be read by other programs

Lest this appears to be overwhelming assortment of information requiring a private secretary to handle the typing load, keep this idea central in your mind: Although certain aspects of the program require their own keystrokes (operating the Stop Watch for example), for the most part, this program derives all it's knowledge from the data you enter on the Cue Sheet. This means that you will only have to enter the essential material once.

With this pleasing thought in mind, let's move into **CUE** and see what's involved.

Organizational Notes

We know how people often attack a new piece of software when they get it home. Rather than page-by-paging it through the manual, the tendency is to jump in and see what blows up. Often the proviso is: "In Case of Fire Use Manual." Keeping this in mind, we have tried to provide several options. There are several places in this manual, where **CUE's** functions are listed in different ways. Page numbers for finding a needed subject are included in each of these overlapping lists.

CUE's aim. . . . on the preceding page, lists the broad functions that the Cue program addresses. Starting page numbers are included after each topic. The **Table of Contents** reflects what we hope is a relatively orderly progress through the various layers of **CUE**, describing each operation and its interaction with related functions. The **Index** will be useful when you are using this as a general reference manual and need to find specific points. The **Menu Map** which follows our **Organizational Notes** presents a graphic display of the various menus and their pop-up sub-menus with page locations listed next to each item. We hope this will direct you to the right spot in the manual to describe what you are seeing as you poke about in the program, or wish to break in new techniques.

As an additional aid to the hop-skip-and-jump manual reader, we have tried to make the manual somewhat modular. This means that certain pieces of information are repeated in different sections. While we haven't gone for complete redundancy, we have tried to seek a pleasing balance between stupifying repetition and gross understatement.

It should also be noted here that this manual assumes familiarity with the Macintosh family of computers. If this program is to be your first experience with the Macintosh, then we suggest you spend some time with the Macintosh manual and some basic applications such as MacWrite or MacPaint to get comfortable with the Mouse and basic procedures before you hop into **CUE**.

One last item before we start is that the **CUE** manual does not provide an overview of film music composition. We will go into explanations of why certain **CUE** features exist and how they relate to the film community, but for information regarding techniques and philosophies underlying the craft of making film music, we suggest you check out Earle Hagen's comprehensive books, **Film Scoring**, and **Advanced Techniques for Scoring Film**, published by Alfred Publishing. You might also check out Dan Wyman's **Scoring for Time** text used at San Jose State University.

Menu Map

Topic Chapters

≡ About CUE...		Chapter 3
File		
New ⌘N		
Open ▶	Open Cue	Chapters 5 & 6
Revert	Open Score	
	Open Title Page	
Import ▶	Import CUE 2.x File	Chapter 4
	Import Text File	Chapter 8
	Import MIDI File	
Merge Cues		
Break Cue		
Save Cue		
Save As ▶	Save Cue As	Chapter 3
Auto Backup	Save Score As	Chapter 5
Save Defaults	Save Title Page As	
Export ▶	Export Cue Sheet as Text	Chapter 8
	Export Cue List as Text	
	Export Perf. Rights as Text	
	Export Spotting Notes as Text	
	Export Cue as MIDI File	
Page Setup		
Print ▶	Print Cue Sheet ⌘P	Chapter 9
	Print Cue List	Chapter 3
	Print Perf. Rights	
	Print Spotting Notes	
Page Setup	Print Title Page	Chapter 7
Print ▶	Print Score Paper	
Quit ⌘Q		

Topic Chapters

		Edit	
		Undo	⌘Z
		Cut	⌘H
		Copy	⌘C
		Paste	⌘U
		Clear	
		Change Case	⌘`
		Capitalize	⌘;
		Delete Cue Point	⌘D
		Delete Range	
Chapter 5		Preface to Spotting Notes	
		Spotting Notes to Preface	
Chapter 9		Copy MIDI File to Clipboard	
		Paste MIDI File	
		Locate	
		Get Next	⌘G

		Reel World	
		Playback	⌘optP
		Click Tap	
		MIDI Events	
		Log Cue Points	
		Generate SMPTE	
		Generate: Multi	
		Options	
		Streamer Options	
		MIDI Setup	
		Refer to Sync Box	
		Sync Box Control	
		MIDI File Playback	
		Set Locate	▶
		Set Loop Points	
		Set Streamer Colors	

		Windows	
Chpt. 3		Input	⌘I
		Cue Sheet	⌘U
Chpt. 6		Clicks	⌘K
		Score Page	
Chpt. 7		Master Cue List	
		Performing Rights	
Chpt. 5		Spotting Notes	
		Title Page	
Chpt. 6		Click Book	⌘optK
		Conversions	⌘optC
Chpt. 9		Custom Menu	⌘optM

A-Bar 1
B-Bar 1
C-Bar 1
D-Bar 1
E-Bar 1
F-Bar 1
G-Bar 1
H-Bar 1

Topic Chapters

Misc

Chapters 10 & 11

Version

Chapter 4

- ✓ Version 1
- Version 2
- Version 3
- Set Final
- Copy Version

Next Version	⌘+
(" ")	⌘=
Previous Version	⌘-
Toggle KEY HIT	⌘H
Toggle CUT	⌘/
Click or Bar-Beat in Cue Sheet	⌘Y
Time or Beat in Clicks, Score	⌘,
Lock to Time Code	⌘E
Set Music Port to Printer	⌘[
Set Sync Port to Printer	⌘]
Hide Bar Lines	⌘optB
Split Cue Sheet	⌘optS
Exchange Running Times	⌘optH
Change Beat Div. Display	⌘optD
Scroll During Play	⌘optL
Start Playback	⌘<SPC>
Clicks Off	⌘optO
Hints	

Operations

- Set Info**
- Set Spotting Notes
- Set Running Time ⌘R
- Set Change Over
- Set Tempo ⌘T
- Accel\rit
- Set Offset ⌘O
- Set Meter ⌘M
- Search Tempos ⌘S
- Set Count Off ⌘W
- Change Cue Length ⌘L
- Move Cue Points
- Enter Relative Time ⌘A
- Enter Chg. Over Times
- Justify Time (Abs) ⌘J
- Scale**
- Set Formats**
- Renumber

- Set Production Info
- Set Cue Info
- Set Preface

Chapters 2, 4 & 6

- Scale Time
- Scale Tempos

- Time Formats ⌘F
- Tempo Formats ⌘optT

1 A Quick Look At CUE

For the purpose of taking a brief look at **CUE**, let us divide the program's many features into three central areas of function :

1. Construction of complete **Cue Sheets** with descriptions and timings.
2. Matching cue points with their proper **Click** tempos and meters.
3. Output of collected information and timed events through print, MIDI, and SMPTE generation.

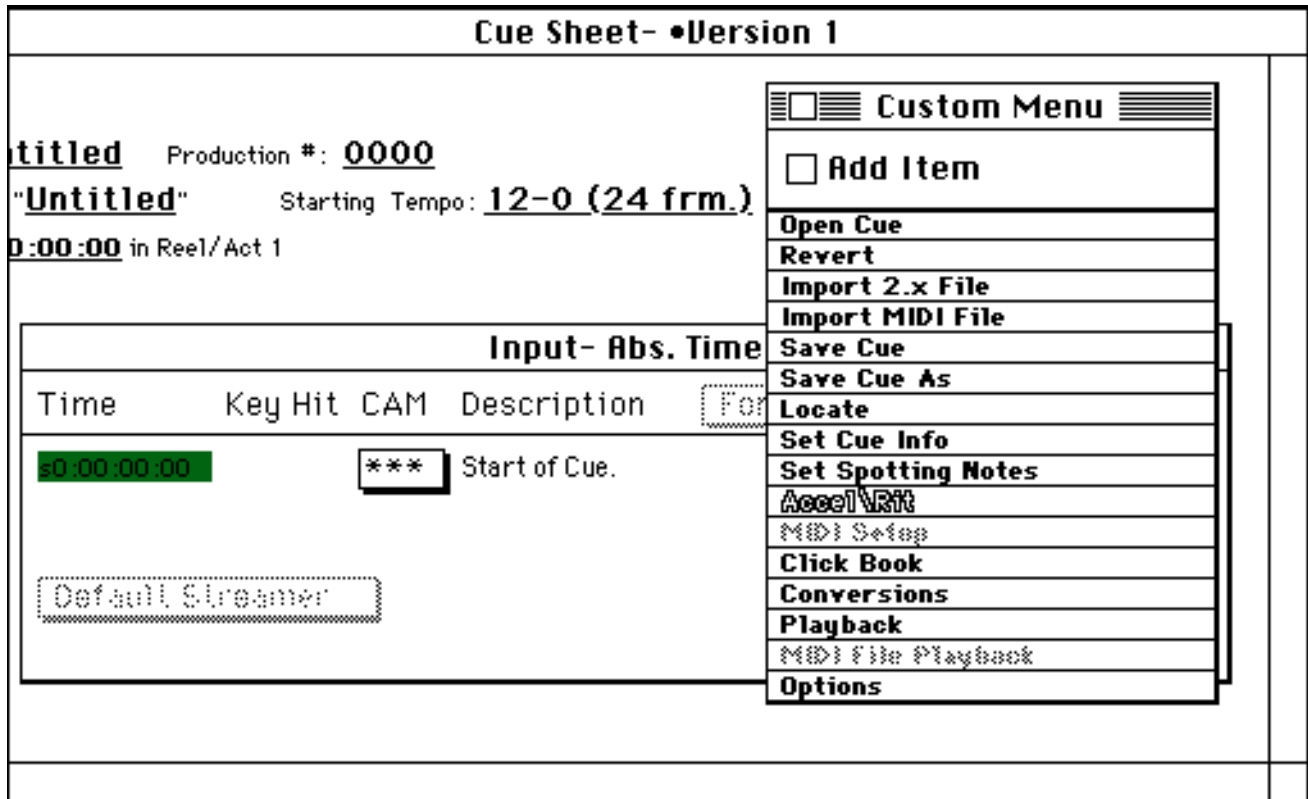
We'll take a quick look at three major **CUE** windows which represent each of the three areas. Each of these areas are uniquely interwoven. Remember when you take this brief tour, that **CUE** will perform many more features than these three. After this introduction, we'll come back and get you started on entering your own material. If you can't wait, see page 15.

Start with the Cue Sheet

After loading the **CUE** disk and clicking twice on the icon for **CUE** which looks like this:



you will be presented with the **Cue Sheet Window**, the overlay **Input Window** and the **Custom Menu** list.



The **Cue Sheet** and the **Input** windows are your central tools for entering information about the visual material you are working with. There are areas for entering production information, starting and stopping times, camera moves, descriptions of scenes, musical timing information, and more (as you shall discover). The **Custom Menu** is provided to help streamline selecting some of **CUE's** many options. We will go into greater detail about the **Custom Menu** on page 92.

Here are some quick ways to retrieve your windows:

- Click on any visible part of a window, and it will move to the front.
- Bring windows to the front through the following 'power keys':

Command-I Input window
Command Opt-M Custom Menu

To see more of the **Cue Sheet**, or make it the active window (if it is not) click once on any exposed part of it.

To retrieve the **Input** window you can select it from the **Windows** Menu, type **Command-I** (**Command** is the key that looks like a cloverleaf) either in upper

or lower case, or click on the small part of the **Input** window that is visible below the **Cue Sheet**. Clicking on a piece of the **Custom Menu** will bring it to the top as well. Try these operations before we continue.

If you wish to enter some information into the **Input** window, by all means do so. Clicking on **OK** in this window will place whatever material you have entered there into the **Cue Sheet** window, if it has been properly configured. So don't be surprised if **CUE** beeps at you and takes you back to the **Time** entry area instead. We will discuss proper time entry in the upcoming chapter.

Lets continue our get-acquainted tour of **CUE**. Click back on the **Cue Sheet** window, and note any information which may have been added to it. Move the mouse up to the **Windows** title in the **Menu** bar. Click on **Windows**, and, while holding the mouse button down, move it down to **Click Book**. If you want to prevent the dreaded Mac-user disease, Forefinger Fatigue, you can type **Command-opt K**. The following window should appear:

Click Book (Tempo Format: 24 fr.)										
	0	1	2	3	4	5	6	7	8	9
		0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00
10	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
20	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50	14.00
30	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00
40	19.50	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00
50	24.50	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00
60	29.50	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00
70	34.50	35.00	35.50	36.00	36.50	37.00	37.50	38.00	38.50	39.00
80	39.50	40.00	40.50	41.00	41.50	42.00	42.50	43.00	43.50	44.00
90	44.50	45.00	45.50	46.00	46.50	47.00	47.50	48.00	48.50	49.00
100	49.50	50.00	50.50	51.00	51.50	52.00	52.50	53.00	53.50	54.00
110	54.50	55.00	55.50	56.00	56.50	57.00	57.50	58.00	58.50	59.00
120	59.50	1:00.00	1:00.50	1:01.00	1:01.50	1:02.00	1:02.50	1:03.00	1:03.50	1:04.00
130	1:04.50	1:05.00	1:05.50	1:06.00	1:06.50	1:07.00	1:07.50	1:08.00	1:08.50	1:09.00
140	1:09.50	1:10.00	1:10.50	1:11.00	1:11.50	1:12.00	1:12.50	1:13.00	1:13.50	1:14.00
150	1:14.50	1:15.00	1:15.50	1:16.00	1:16.50	1:17.00	1:17.50	1:18.00	1:18.50	1:19.00
160	1:19.50	1:20.00	1:20.50	1:21.00	1:21.50	1:22.00	1:22.50	1:23.00	1:23.50	1:24.00
170	1:24.50	1:25.00	1:25.50	1:26.00	1:26.50	1:27.00	1:27.50	1:28.00	1:28.50	1:29.00

Tempo

12

-

0

Find Click #

1

Find Time

0.0

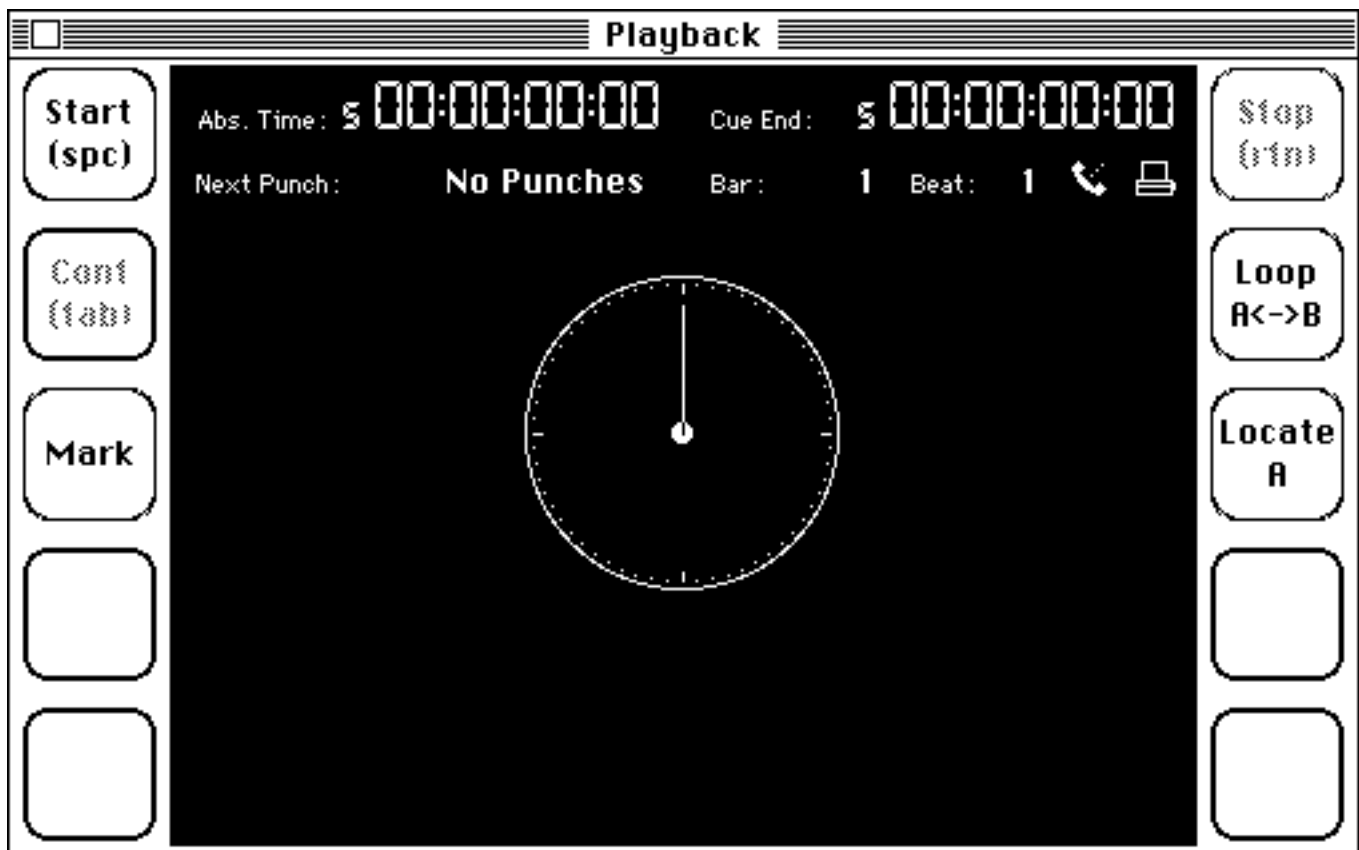
Preu

Next

The **Click Book** window provides you with the central time-saving device

composers need to determine the placement of their cues. With this chart, and the information placed into a **Cue Sheet** window, you can test virtually any practical tempo to find the one which catches your cue points best. The large numerical chart shows time as a function of beats and tempo. The far left hand column shows beats in increments of 10, while increments of 1 beat run along the top of the chart. The time displayed for each beat in the central chart has been calculated for a **Tempo** of 12 - 0, as stated next to the **Tempo** button on bottom left. You can change the display of this flexible tool by changing a number next to one of those three bottom buttons (**Tempo**, **Find Click #**, and **Find Time**), and clicking on the associated button. With each change of tempo, the times displayed in the chart will change. You will find information about this window and it's functions in the chapter entitled, **The Click Book** (page 112).

Close this window for now by clicking on the small upper left hand box in the **Click Book** banner. You should see the original **CUE** banner now at the top of your screen. Move over to the **Reel World** heading in the menu, click on it and select **Playback** from it's column. The following window should appear:

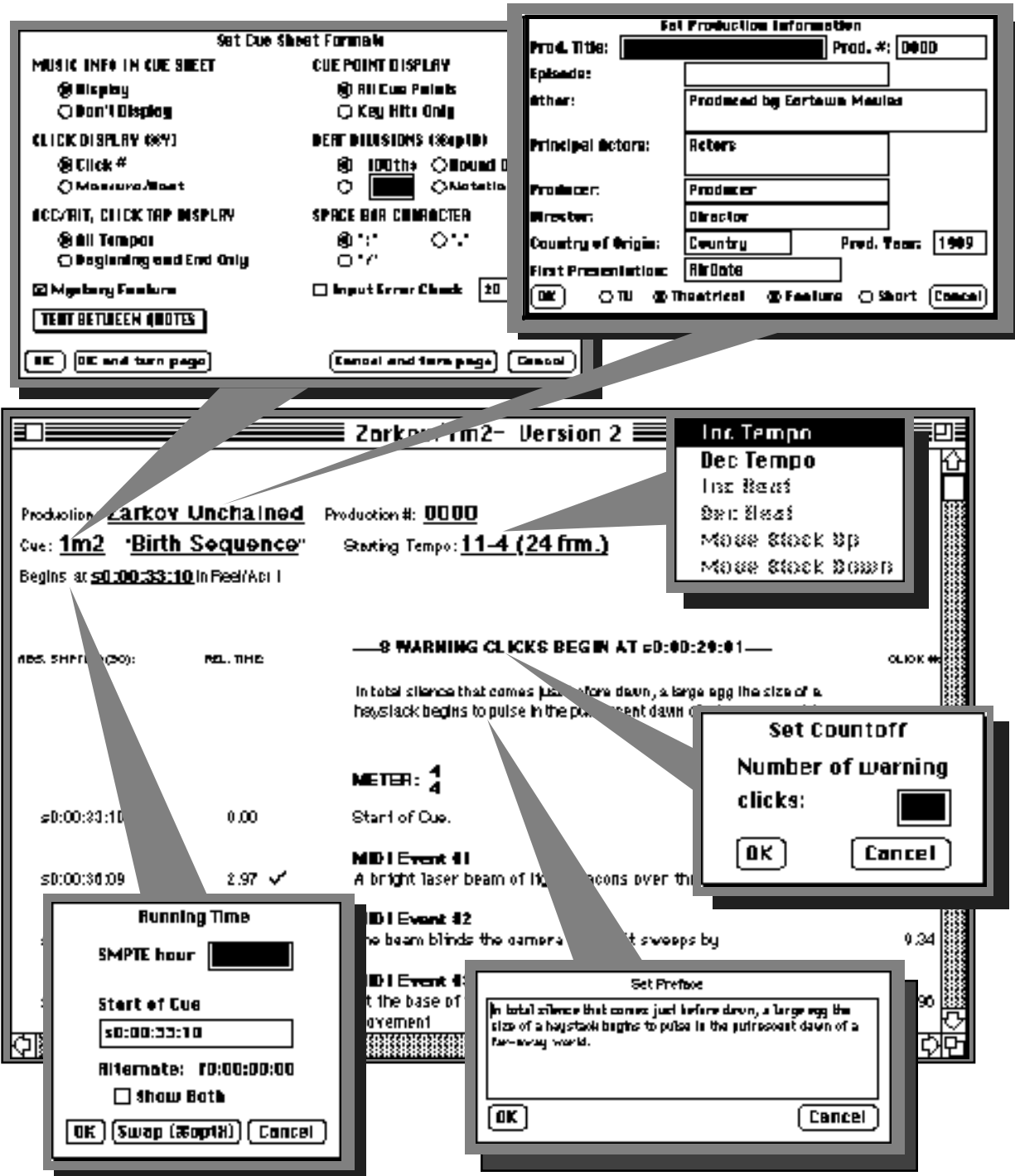


The **Playback** window is just one of several "output" features **CUE** provides to help construct a unified environment for your work. This screen will take the tempo(s), cue points, and necessary performance information in your cue, and construct a visual clock which outputs MIDI and click information simultaneously when you start it. The rectangles at right and left of the screen (sprocket holes, pretty clever) allow you to start and stop the "information playback" of your cue. Running time, beats, cue points (punches), streamers and more are all displayed in the window when you start the playback of a cue. Try clicking on the **Start** button, and watch what happens. Information on this window and other playback functions will be found in the chapter entitled, **Communicating With the Outside World**.

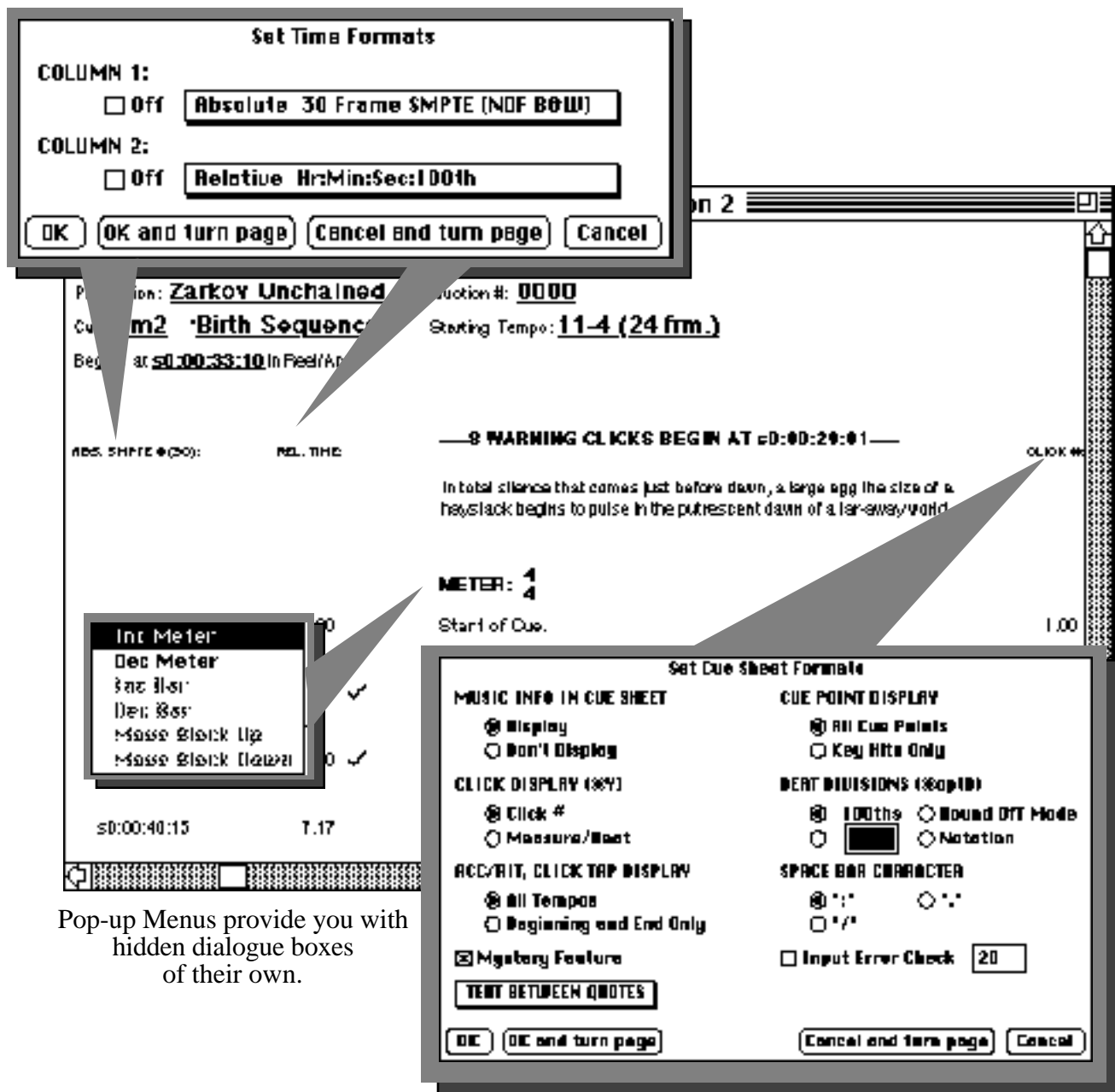
Skip around to some of the other menu items and get a feeling for how they interconnect. The function of many of these windows is dependent upon material entered into the **Cue Sheet**. So, let's begin our first complete exploration of **CUE** right there.

2 The CUE SHEET Exposed

When you "click" on various areas of the Cue Sheet window, you will find the following dialogs and/or pop-up menus:

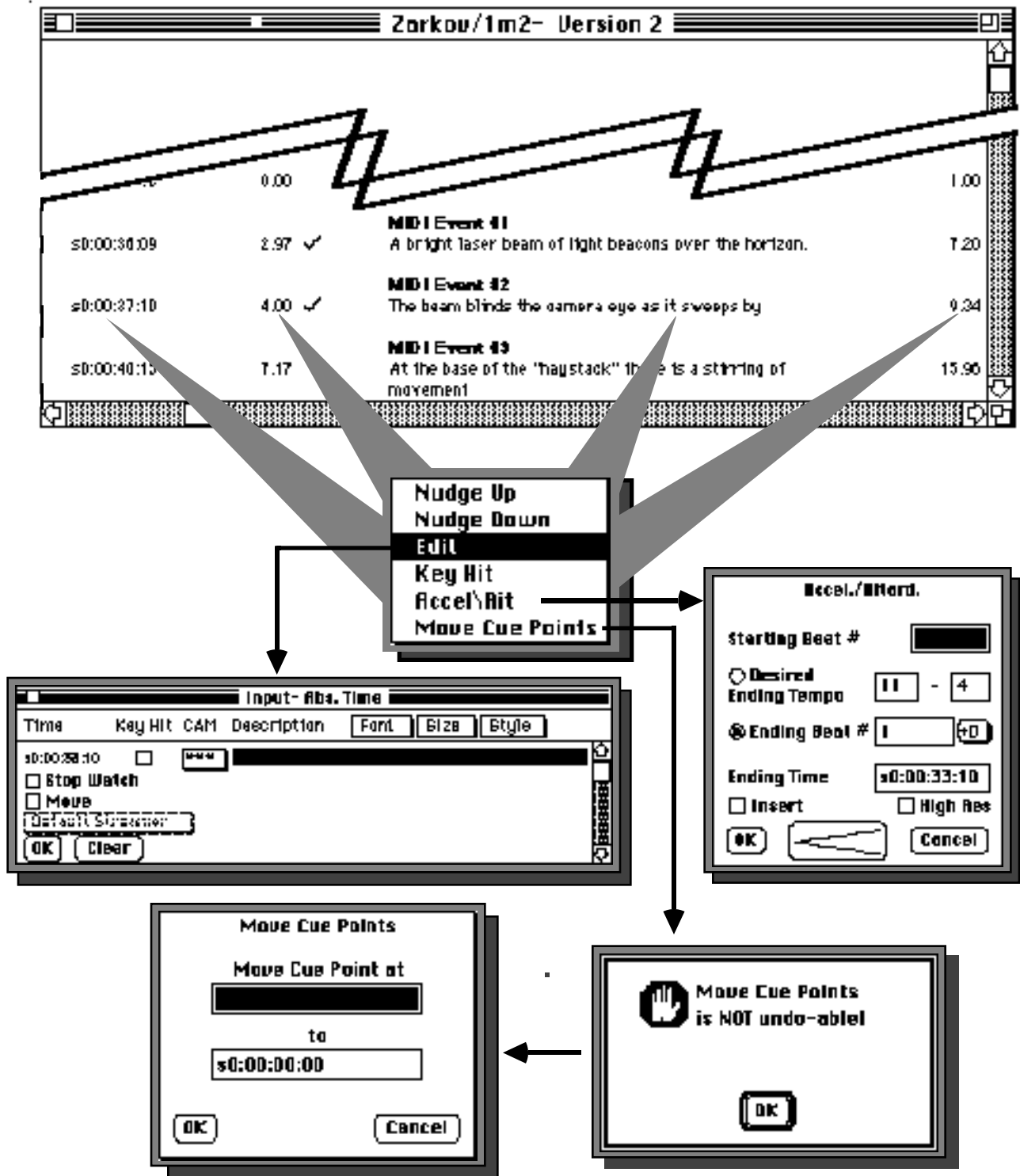


The Cue Sheet Exposed [2]



Pop-up Menus provide you with hidden dialogue boxes of their own.

The Cue Sheet Exposed [3]



Entering Information from Home Base

Having checked the many dialog boxes of the **Cue Sheet** window, Lets begin to discuss them in some detail. Time, description, and production information entered through the **Cue Sheet** will affect almost every function of CUE.

Setting Your Cue Information

We will start by titling our cue. This is done by going up to the **Operations** Menu and selecting **Set Info**. A sub menu will appear to right. Move the mouse cursor over and select **Set Cue Info**. This will open a dialog box for entering information about the cue you are working on. It looks like this:

Set Cue Information

Production Title: Cue #:

Cue Title: Session #:

Composer(s):	%:	Publisher(s):	Affil.:
Composer	100	Publisher	Affil
	0		
	0		
	0		

Orchestrator:

Written Orchestrated Copied Recorded

If for some reason you do not wish to title your cue then you need not access this dialog box and can proceed to the next step. However, since **Set Cue Info** does provide ease of identification for your print-outs and also is a source of some of the raw material for **The Master Cue List** and **The Performing Rights Cue Sheet**, this dialog box is extremely useful.

Like all the dialog boxes in **CUE**, there are two ways to move from one entry area to another. One is by using the Tab key, which will move you sequentially from box to box. The other is by using the mouse to locate the cursor at the point you wish to enter information.

The **Production Title** and the **Cue #** will appear on the **Cue Sheet** when we return to it. All the rest of the information you can enter in this dialog box refers to the **Master Cue List** and the **Performing Rights Cue Sheet**. If you are working on a single cue such as music for a commercial, then you can leave the rest of the boxes blank, but for purposes of getting you into using **CUE**, let's suppose we are working on a feature called "Zarkov Unchained". Enter this title in the **Production Title Box** and then Tab to the **Cue # Box**.

The number you enter here keeps track of where in the film this cue occurs.

A word of explanation for the uninitiated: These numerical titles take the form *rrMss* where *rr* is the reel number and *ss* is the start number from the beginning of the reel. For example, the fourth cue on reel 6 would be titled 6m4.

In the case of our example, since it is the first cue in the film, we will call it "1m1". Enter 1m1 in the **Cue #** box, and tab to the **Cue Title** where we will enter an actual name for the cue. Our sample cue is called the "Opening Shot". Enter this and tab to **Session #**. The number you assign here will allow you to group your cues so that you can organize them by the session you will be recording them at. It may be too early in the process for you to know this now, but you can always return and add this information later.

Continue to tab along, entering your own name under **Composer(s)**, 100 under **%**, (since you are the sole composer on this cue), the name of your publishing company under **Publisher(s)** and BMI, ASCAP or other affiliation under **Affil**.

Written, Orchestrated Copied and **Recorded** have check-boxes to be clicked on when each of these tasks has been accomplished. This will keep your **Master Cue List** up to date whenever you choose to assemble one. To find out more about compiling the **Master Cue List** see page 166.

Customized Usage Menu

At the very bottom of the page between the **Ok** and **Cancel** buttons are a pop-up menu box labeled **Background Instrumental**, and right center button labeled **Edit Usage Menu**.

If you click on the box to the left you will see that it is really a pop up menu. Scrolling downward by clicking on the mouse cursor and moving it down toward the bottom of the box will reveal three other default choices besides **Background Instrumental**. They are **Background Vocal**, **On Camera Instrumental** and **On Camera Vocal**. Selecting any one of these will cause the selection of your choice to appear in this box. Clicking on **OK** will mean that this is how the cue will be listed on the **Performing Rights Cue Sheet** when the time comes to print it out.

But what if none of these four choices fit's your particular needs? That's where the **Edit Usage Menu** button comes in. When you click on it the following entry box will appear:

Edit Usage Menu	
Background Instrumental	Background Vocal
On Camera Instrumental	On Camera Vocal

The first four boxes are filled in with the default settings. It is suggested that you leave these in place because if you are ever doing a **Performing Rights Cue Sheet** whose cues were done on an earlier version of **CUE**, these default settings

will allow your print-out to accurately reflect the usage choices you made with your previous **CUE** version.

This leaves you twelve more spaces to enter any customized usage categories you desire. To avoid confusion, you must enter these usages in left column-right column order instead of first down one column and then down the other. The reason for this is that since **CUE** reads from left to right, it will decide it has reached the end of the list whenever it comes to an empty box and thus all your customized usages will not be displayed if you list them only in the left column.

After you click on **OK**, and then click and scroll on the pop up menu, you will see your customized usages appear in addition to the four default categories. Selecting one of the new usages will cause it to appear in the display box and will make this the usage that will be listed on the **Performing Rights Cue Sheet**.

We are now ready to return to the **Cue Sheet**, but first it is necessary to accept the information just entered. This is done by moving the mouse cursor over the button labeled **OK** and clicking once (or hitting the **Enter** key). Go ahead and do this now.

Remember: just because you clicked on **OK** when you created a customized usage does not mean this is the one that will appear in your print-out. Selecting that particular usage from the pop up menu so that it will appear in the display box and then clicking on the **OK** just to the left of this display box is what will accomplish that.

To find out how to compile the **Performing Rights Cue Sheet**, see page 171.

If there was another item that you wanted to add to our **Set Cue Info** dialog box, once more, click on the **Operations** Menu and then select **Set Cue Info**. When the dialog box appears on the screen, you will see that it holds all the data that you previously entered and saved by clicking **OK**.

Should you have entered this dialog box by mistake or if you wish to leave it without updating any of the information, click once on the button marked **Cancel**. If you have updated any entries but now do not wish to save these updates, then clicking **Cancel** will restore the settings you last clicked as **OK**.

Cancel will always return you to the **Cue Sheet**. It does not remove any of the information which you have saved by clicking on **OK**.

Set Production Info

While **Set Cue Info** lets you log in some of the basic information about your production, it does leave off a number of other specifics you may want to include on your **Performing Rights Cue Sheet**. **CUE** has anticipated this need with the **Set Production Info** dialog box. If you click on the **Operations** menu again you will see **Set Production Info** appear when you select **Set Info** right up at the top. When you slide the cursor over to **Set Production Info** and then release the mouse button, this is what you will get

Set Production Information

Prod. Title: Prod. #:

Episode:

Other:

Principal Actors:

Producer:

Director:

Country of Origin: Prod. Year:

First Presentation:

TU Theatrical Feature Short

This dialog box will let you either tab through the various categories or select a particular one of them just like **Set Cue Info** did. All of the information you enter here will appear in the **Performing Rights Cue Sheet**.

If you are wondering why the **Production Title** appears in the **Set Cue Info** dialog box as well as this one, it is there as a convenience. Should you be working on a commercial or something other than a feature, you may never have a need to go to **Set Production Info** but you may want to list a production title. This way you can do it all in the **Set Cue Info** dialog box. Whichever one of

the two dialog boxes you enter the **Production Title** into will cause it to automatically appear in the other one, so you don't have to duplicate keystrokes.

The **Production #**, and **Episode** will also show up when you print out the **Cue Sheet** and the **Master Cue List**. At the bottom are a number of buttons which will allow you to indicate whether the production is for **TV** or **Theatrical** and whether it is a **Feature** or a **Short**.

After you have entered whatever you want to log in this dialog box, click on **OK** to save it or **Cancel** if you want your entries to disappear. This will return you once more to the **Cue Sheet**.

Quitting the Program ("but I just got here")

The only reason we mention this now, is in case you have to stop working and are frustrated by how to **Quit** the program. The **Quit** command is located at the very bottom of the **File** menu. Selecting it will enable you to leave gracefully. You can also hold down the clover leaf **Command** key and type **Q**.

Saving your work before you leave is another matter. This is dealt with on page 52.

Setting the Running Time

The next operation which **CUE** permit's you to do is the logging of your **Running Time** (the place in the film where the cue begins). It is important to enter your **Running Time** before you enter any actual cue points if you want **CUE** to show your timings correctly. This entry is not only a helpful guide when it comes time for the music to be cut in but is also used by **CUE** to 'zero' the **Relative Time** column for composition purposes.

There are three ways you can call up the **Running Time** dialog box:

- 1- by selecting **Set Running Time** from the **Operations** menu.
- 2- by holding down the **Command** key while you type the letter **R**
- 3- by clicking anywhere on the **Begins at** line at the top of the **Cue Sheet**.

After doing any of these three procedures, this is what you will see:

Running Time

SMPTE hour

Start of Cue

Alternate: f0:00:00:00

Show Both

There are three pieces of information asked for in this dialog box.

The first entry box marked: **SMPTE hour** will accept any number up to and including 23 hours. Placing the hour in this box will make it easier to enter SMPTE times in the actual **Cue Sheet** because you will only have to type minutes, seconds, and frames into the **Input** window. CUE will automatically fill in the hour for you. By the way, when you convert from SMPTE to other formats such as feet and frames, **CUE** will ignore the **SMPTE hour** since reels just don't come that big.

The second box is labeled: **Start of Cue**. This is where you enter the rest of the SMPTE number and all of the information concerning the hrs:min:sec and hundredths of seconds, or feet/frames from the beginning of the reel. You can **tab** between these entry boxes or use the mouse. **CUE** abides by the standard Macintosh word processing conventions so if you want to type in a number completely different from that which is currently entered, remember to select the entire box so it is highlighted in black before you key in a new entry.

The third box is provided so you can store an **Alternate Running Time** for your cue. This will prove handy if the composer is working with a video copy in which the first frame of picture starts at 0:00:00:00, and the editor is working at a movieola with a reel that has an academy leader which would make the first frame of his picture show up at 12 feet instead of 0 feet. Before we explain how to create an **Alternate Running Time**, let's first key in an initial **Running Time**.

For purposes of example, we and the director of our mythical film have decided this cue is to begin at 10 seconds into the first reel and that the mythical video tape of our mythical film has been delivered to us mythically encoded with 30 frame non-drop SMPTE.

Since it has become fairly universally accepted that the **SMPTE hour** is made to correspond with the reel number, our first step is to enter the number **1** in the box labeled **SMPTE hour**. When you first call up the **Running Time** dialog, the **SMPTE hour** entry box will be selected and waiting for your keystroke. If you have parked the cursor in the other entry box, hitting the **Tab** key is the fastest way to select the **SMPTE hour** box in order to enter the hour. Once you have done this, you can hit the **Tab** key and proceed to enter the **Start of Cue** time.

BIG FAT NOTE: If you have entered a SMPTE hour in the **SMPTE hour** box do not enter it again in the **Start of Cue** box. If you do, **CUE** will add the two **SMPTE hours** together which is very logical but not really the result we had in mind.

Our sample entry should be entered in this way: **s0:00:10:00**. The prefix "s" is the way **CUE** recognizes that we are entering 30 frame non-drop Black and White SMPTE code. When you first enter the **Start of Cue** box, there will be a zero number already entered. If this number appears in same time format you are using, you can hold down the **Command** key and hit the **Tab** key to move from time field to time field, thus saving the entry steps of typing slashes, colons or periods. In the case of our example, you could tab from the hour to the minute to the second entry, and type in the number **10** without having to enter the whole number. Try this to make sure you understand how this feature works.

Since our particular example is a round number of seconds, you you could also save keystrokes by hitting the **Tab** key to select the entire box, and typing **10** (entering time requires no letter prefix before the number and since there is no fraction of a second involved, you need not enter a decimal point for **CUE** to understand). (The section about time entry starts on page 30).

When you are satisfied with your entry, click on the button marked **OK** (or hit the **Enter** key), and you will return to the **Cue Sheet**. If you decide not to make an entry, then clicking the mouse on the button marked **Cancel** will also return you to the **Cue Sheet**. (Note that in **CUE**, unlike some Macintosh programs, the **Return** key does *not* exit a dialog window. You should always use the **Enter** key as a substitute for the **OK** button).

Notice that the information you just typed is now displayed on the second line at the top of the **Cue Sheet**. If you want to see the **Running Time** displayed in another time format other than the one you are currently viewing on the screen, then you will have to change the setting of the **Time Formats**.

We Warned You But You Did It Anyway Note: As we alluded to at the beginning of this section, if you forget to enter the **Running Time** before merrily starting to bang out your **Cue Sheet**, you will create a small problem for yourself. What happens should you try entering your **Running Time** belatedly, is that it will be added on to the time of your first cue point instead of reflecting that they are both one and the same. (If your first timing point is 20 seconds, and you enter a **Running Time** of 20 seconds after you typed the **Cue Sheet**, that first timing point will now show up as 40 seconds.) Don't worry, there is a way to extricate yourself from this dilemma:

First replace any numbers you may have keyed into **Set Running Time** with zeros, and click on **OK**. Then select **Set Offset** from the **Operations** menu and enter your **Running Time** as a positive (+) **Permanent Offset**. (see page 144 for more details, but even better, try training yourself to enter your **Running Time** first.)

Setting the Time Format

CUE is a very flexible beast. As we learned in the **Running Time** dialog box, we can enter and get back hrs:min:sec, SMPTE numbers and feet/frames. In addition, since **CUE** will tell you what measure and beat is occurring at a specific timing point, it will also allow you to express timing information in the form of measures and beats. (We will go into greater detail on this when we discuss the **Input Window** starting on page 29.)

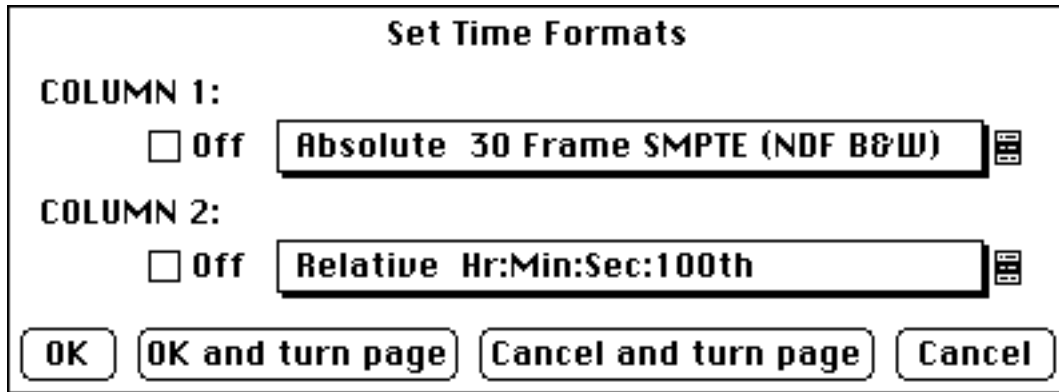
Now that you are about to enter some actual cue point information, our suggestion is that you set **CUE** so that it will show your timing information in the same format as that which you are entering. The reason for this is that at some point in your process, you are going to want to proofread your "typing" to make sure that your timings are entered correctly. Seeing them displayed in the same format you are working in greatly facilitates this.

To select a time format, move the mouse cursor up to the **Operations** Menu and choose **Set Formats**. When you do so, you will notice that a whole new smaller menu has opened up just to the right of the words **Set Formats**.

This is your first official encounter with hierarchical menus in **CUE**. To use these little sub-menus, slide the mouse to the right and you will find that the different lines of text in this hierarchical menu will highlight just like the main menu's. The purpose for this feature is that without these little sub-menus, all these categories would have to be listed in the main menu, making it an endless list you would need to scroll every time you wanted something which wasn't showing on-screen when you first accessed the menu.

This particular hierarchical menu will gain you access to a dialog box made up of three separate "pages": **Time Formats**, **Tempo Formats**, and, **Cue Sheet Formats**. You will also find a separate selection entitled, **Screen Setup**. These pages allow you to tailor your **Cue Sheet** to meet a great variety of different applications. Each is discussed under it's own topic section in the manual. For more details on this, see pages 65 and 116.

Since we are interested in setting the **Time Formats**, move the mouse over to the hierarchical menu and select **Time Formats**. When you lift your finger from the mouse button, the dialog box which appears on the screen it will look like this:



If for some reason the dialog box does not say **Set Time Formats** at the top, click on the button at the bottom of the page that says **Cancel and turn page**. This will move you to the next page in this dialog box. You can repeat this until the correct one of the three pages that make up this dialog box will appear, or you can click on the button that says **Cancel**, which will return you to the **Cue Sheet**, allowing you to start the whole menu selection process over again.

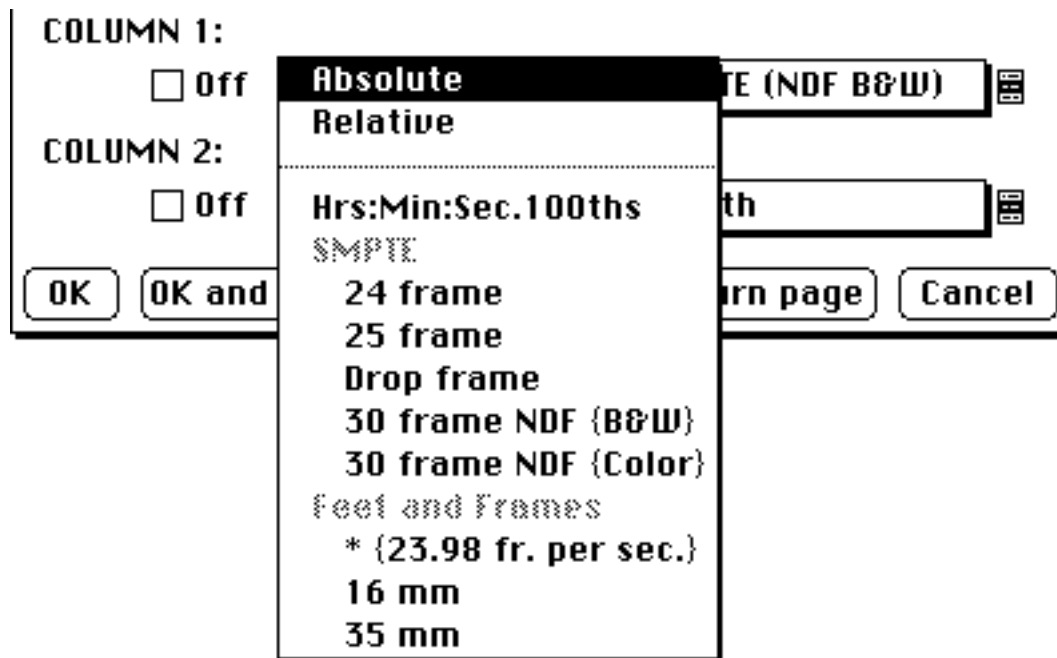
The other two pages allow you to make selections of different **Cue Sheet Formats** and **Tempo Formats**. We will take these up a little later but you are certainly free to click on the **Cancel and turn page** button and check them out. When your curiosity has been satisfied, click back to **Time Formats** and we will proceed.

Note: There are two other ways that you can call up the **Set Time Formats** dialog box. You can hold down the **Command** key and type the letter **F**, or once you have actually entered your first cue point, so that the timing columns with their headings have become visible on the **Cue Sheet**, you can click on the headings of either one of these columns to call up this dialog box.

Set Time Formats

As you examine this page it appears too simple. You can see the two columns of timing information displayed and you can see the little box to the left of them which allows you to turn either of them off in case you only want to look at one column of information, but where do you select between all of the different formats we have been writing about?

This mystery will become clear as soon as you click anywhere on one of the two boxes that describe what the **Time Format** of that particular column is. What you will see is:



This is a pop-up menu and it works just like the main menus and the hierarchical menus. Pull down and select any of the available choices for timing display and when you release the mouse button, your new choice will show in the box. This menu allows you to choose between a wide array of different time formats, and it lets you select either **Absolute** and **Relative** time.

Absolute and Relative Time

This is an important concept to understand. **Absolute Time** refers to the actual timing points of the cue as taken down from the movieola or video tape. **Relative Time** is the time from the start of the cue. This feature makes it unnecessary for the editor to zero the counter at the beginning of each cue in order to determine its length. After you have used the pop up menu to select either **Absolute** or **Relative**, you can return to the menu a second time in order to select the timing format you desire that particular column to appear in.

Format Choices

The three basic choices you have are **hrs:min:sec.100ths**, **SMPTE** or **Feet and Frames**.

In the **SMPTE** portion of the dialog box you can choose between 24, 25 or 30 frame **SMPTE**. When selecting 30 frame **SMPTE**, you can further pick **black and white, color**, or **drop frame**. **Black and White** means that the **SMPTE** is running at exactly 30 frames/second. **Drop frame** means that the **SMPTE** is displayed as 30 frames/second but is running at 29.97 frames/second. To compensate, the first two frames of each minute between the second and ninth minute of every ten minute cycle are dropped. **Color** means that the **SMPTE** is displayed as 30 frames/second but is running at 29.97 frames/second with no compensation as in **drop frame**.

IMPORTANT NOTE: Do not assume that you should enter your timings as color SMPTE if you get a color video tape. If there is no label on your working tape, check with your music editor, or with the video engineer who made your dub.

If all this seems confusing, don't worry. A small child could understand it. Unfortunately since there are no small children operating any of the major video facilities, we are in deep trouble. The main fact which you will want to be very clear on is exactly what type of SMPTE is being striped on the tape you are going to work with. Once you know, it will be possible to set **CUE** to conform to whatever you end up with.

There are two basic choices and a wildcard under **feet/frames**. **CUE** will deal with both 35 and 16 millimeter film, but it will also handle film at 23.976 frames per second. If you have a video with both a footage and a drop frame window burned in, and you want to take down the footages, use this format.

Information about how to correctly enter all these different formats is covered in the section starting on page 30.

There are a number of advantages to having two timing columns. The composer can be looking at the **Relative Times** which are pertinent to writing the music, while also being able to refer to the **Absolute** timing points that the editor and director are dealing with. For that matter the composer can be showing his times in **minutes/seconds** and simultaneously refer to **feet/frames** or **SMPTE**

numbers. As you think about the possibilities, you will probably come up with variations on this theme that suit your own needs. For Instance, if you have to have three columns of timings, you might want to make print-outs of two columns, and refer to a third on screen.

Since the **Set Formats** feature has three pages, **OK and turn page** will enter the choices you have made and send you to the next page of the dialog while **Cancel and turn page** will throw away any changes you just made but still keep you paging through the **Formats** dialog box. As with the dialog boxes we have already dealt with, clicking on the button marked **OK** (or hitting the **Enter** key) enters the choices you have made and sends you back to the **Cue Sheet**, while **Cancel** sends you back to the **Cue Sheet** without updating whatever was previously in the **Formats** dialog box.

Quick Note: If you have been playing around with some of the other pages in this dialog box you might not achieve similar results to what we will describe in the next section of the manual. To correctly undo any changes you may have inadvertently made, be sure that all the buttons on the **Set Cue Sheet Formats** page are set identically to the illustration which follows:

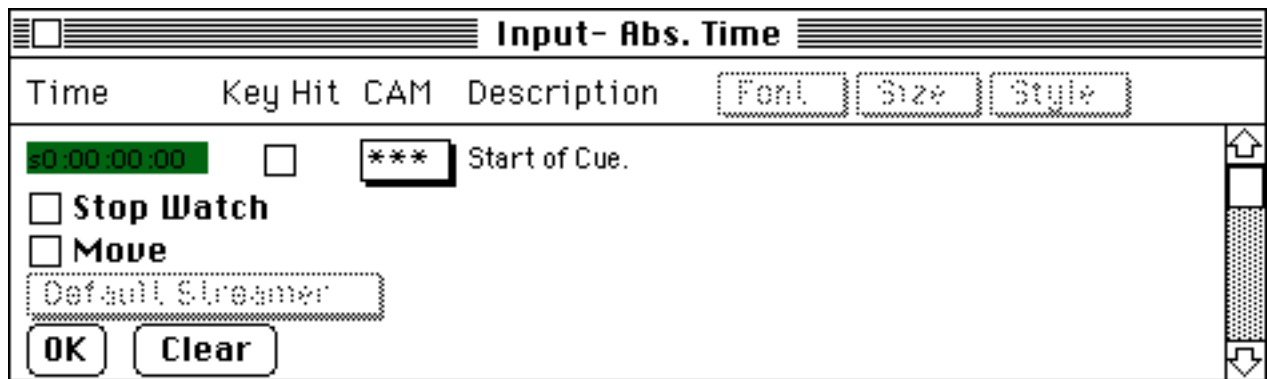
Set Cue Sheet Formats

<p>MUSIC INFO IN CUE SHEET</p> <p><input checked="" type="radio"/> Display <input type="radio"/> Don't Display</p> <p>CLICK DISPLAY (⌘Y)</p> <p><input checked="" type="radio"/> Click # <input type="radio"/> Measure/Beat</p> <p>ACC/BIT, CLICK TAP DISPLAY</p> <p><input checked="" type="radio"/> All Tempos <input type="radio"/> Beginning and End Only</p> <p><input checked="" type="checkbox"/> Mystery Feature</p> <p><input type="text" value="TEXT BETWEEN QUOTES"/> <input type="button" value="⌘Y"/></p>	<p>CUE POINT DISPLAY</p> <p><input checked="" type="radio"/> All Cue Points <input type="radio"/> Key Hits Only</p> <p>BEAT DIVISIONS (⌘optD)</p> <p><input checked="" type="radio"/> 100ths <input type="radio"/> Round Off Mode <input type="radio"/> <input type="text" value="100"/> <input type="radio"/> Notation</p> <p>SPACE BAR CHARACTER</p> <p><input checked="" type="radio"/> ":" <input type="radio"/> "," <input type="radio"/> "/"</p> <p><input type="checkbox"/> Input Error Check <input type="text" value="20"/></p>
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To find out about more about the **Set Cue Sheet Formats** page, turn to page 65 of this manual.

The Input Window

Now that we are back at our **Cue Sheet** display, you may need to retrieve the **Input** window. So once again you can either click on the **Window** menu and select **Input**, type Command-I, or click on any part of the **Input** window that is exposed. What you will see is this:



It is here that specific information about each cue point is entered. The two text areas in this window are **Time** and **Description**. In order to enter a cue point, both of these must be filled in. They are both editable text areas that follow all of the Macintosh conventions for editing text. You can move from one to the other by using the Tab key or by clicking in the field you want to activate. (The mouse cursor will change from an arrow to an "I-Beam" whenever it is over one of these fields.) Actually entering a cue point in to the **Cue Sheet** is done by clicking on **OK** or hitting the **Enter** key.

Absolute and Relative Time

Before we enter any timing information, it is important to be sure whether you are entering **Absolute** or **Relative** time. When you enter an **Absolute Time**, **CUE** will calculate the corresponding **Relative Time** and enter it in the **Relative Time** column and vice-versa. Although we previously explained the difference between the two, this distinction is important enough to bear repeating:

Absolute Time refers to the actual timing information taken from the movieola or video tape. **Relative Time** is the time from the start of the cue.

The title bar of the **Input** window indicates whether **CUE** is set to receive **Absolute** or **Relative** time entries. If it is set for **Absolute** and you wish to change it to **Relative** time you can do so by clicking on the **Operations** menu and selecting **Enter Relative Time**. After you have done so, the title bar on the **Input** window will reflect the change you have made. If you want to go back to **Absolute** time, click on the **Operations** menu again and you will see that it now reads: **Enter Absolute Time**. Clicking on this will return the **Input** window and its title bar to the **Absolute** time setting.

A faster way to accomplish this is to hit the **Command** key along with the letter "a". **Command "a"** will toggle you back and forth between the two time modes.

Time Entry Formats

If you are entering either hundredths of seconds, seconds, film frames or beats it is not necessary to enter "0" minutes, feet or measures in order for **CUE** to understand the number you are feeding it. Your entry will be logged correctly provided you use a decimal point if you are keying in a fraction of a second, the slash (/) before the frame number, or a letter "b" before the number of beats. No punctuation at all is necessary for entry of whole seconds without increments.

Once you enter the SMPTE hour in the **Running Time** dialog box, you need not enter the SMPTE hour when you enter times in that format.

The letters entered before a timing number distinguish between feet/frames, measures/beats, 16 millimeter, or the many SMPTE formats. They may be entered in either upper or lower case. The letters you should use to distinguish between the different forms of film and SMPTE are: "x" for 16 millimeter, "f" for 24 frame, "e" for 25 frame, "s" for 30 frame black & white, "c" for 30 frame color, "d" for drop frame, "m" for measures, and "b" for beats.

To enter film frames at 23.98 frames per second, precede the entry with an asterisk (*).

CUE will translate any kind of time entry you can feed it into the specific format you have selected for your **Cue Sheet**. Certain times such as **Running Time** and the start of the **Warning Clicks** are always displayed in the **Absolute** time format, while others such as **Offset** are always shown in the **Relative** time format.

If you have one time column set for **Absolute** and the other for **Relative**, **CUE** has no problem homing in on what format is to be used for **Absolute Time**. But what if you have both columns set for either **Absolute** or **Relative**? In these cases, **CUE** will arbitrarily decide that the first timing column is the one it will use for **Absolute Time Format**, and the second column for **Relative** time.

You can enter a number of seconds greater than "60" in the **Hr:Min:Sec:100th** format, and **CUE** will calculate the proper conversion and display your entry in minutes and seconds. Unlike many other programs, you do not need leading zeroes such as "09" in order to mark a decimal place. This cuts down on the number of key strokes you need to make.

Time Entry Types and Examples

Time entries can be expressed in several forms:

seconds and/or hundredths of seconds	87.64
	.53
minutes:seconds and/or hundredths	3:4.9
	66:01
hours:minutes:seconds and/or hundredths	4:0:06.15
	1:1:11

SMPTE Formats

30 frame (black & white) seconds and frames	s23:29
	s14
30 frame (b & w) hours:minutes:seconds:frames	s12:5:22
	S3:01:44:1
alternate entry method using semi-colons	s12;5;22
	S3;01;44;1
24 frame minutes:seconds:SMPTE frames	f6;48;1
	F4;9;21;7
25 frame minutes:seconds:SMPTE frames	e0:5:22
	E2:01:31:2
30 frame (color) hours:minutes:seconds: frames	c8;5;22
	C3:01:44:1
Drop frame hours:minutes:seconds: frames	d3:2:17
	D9:5:7:2

(for explanations of different SMPTE formats see **Format Choices** on page 27)

Film Formats

35 millimeter feet / and/or film frames	486/11
	/3
16 millimeter feet / and/or film frames	x67/5
	x/14
23.98 frames per second	*32/7
	*x256/
measures and/or beats	b48
	M6B3
	M8

As you can note from the above examples, you are provided as much forgiveness as possible when it comes to entering numbers to the **Input** window.

Film Frames at 23.98 FPS

This is a format especially designed for situations where the editor is taking timings from a moviola and the composer is working from a video encoded with drop frame SMPTE.

Since American video (NTSC) runs slow (29.97 frames per second instead of the advertised 30 fps), there will be a degree of slippage between timings taken from film when compared to drop frame SMPTE. The extent of the slippage is that ten minutes of film will take ten minutes and 18 frames of displayed drop frame SMPTE to unreel. This 18 frame difference over a ten minute span may not seem like a lot, but if an editor and composer are trying to get in sync over a particular subtlety in the picture, it could get confusing.

CUE's solution to this situation is to provide the editor with a way to notate feet/frame timings that will slightly slow them down automatically to match the video speed. This format is **film frames at 23.98 fps** (it is really 23.976 fps, but who's counting). If the editor takes the film timings down in this format (by placing an asterisk in front of each timing) then the composer will receive timing sheets whose cue points will match the movieola perfectly even after they have been converted to drop frame SMPTE.

Saving Keystrokes when Entering Numbers

Several time and effort saving substitutions have been included in **CUE** to make entering numbers easier:

When is a ; Not a ; ?

To save the keystroke of having to hit the shift key, you can enter ";" instead of ":" when typing hours-minutes or SMPTE (s6;48;23). When the number is actually displayed in the **Cue Sheet**, it will appear with colons instead of semi-colons.

Space Bar Punctuation

You can set the **Space Bar** up to be either a colon ":", a slash "/", or a period. This is done by clicking on the **Operations** menu, selecting the **Set Formats** sub-menu and releasing on **Cue Sheet Formats**. There, under **Space Bar Character**, you will be given the three choices. Clicking on whichever one you are using the most for between-number punctuation in your entry process, and then clicking on **OK** (or hitting the **Enter** key) should make your number entry typing routine easier.

The ESC Key

On extended keyboards the **ESC** key will work just like the **CANCEL**, **DONE**, or **EXIT** buttons. It is a logical counterpart to the **ENTER** key which replaces the **OK** button on your screen.

Command/Tab

If you are editing an existing timing, holding down the **Command** key while you hit **Tab** will move you from one time field to another so you won't have to retype slashes or colons.

No Extra Zeros Around Here

When you are entering an even number of feet, you need not place a "0" after the slash mark (/) to indicate zero frames. (You must use the slash, or **CUE** will read your entry as seconds).

If the time is entered as a measure or beat, **CUE** will take into account any tempo and meter changes and the current offset when it calculates the time.

Note: When entering numbers, make sure you use the zero character ("0") from the top line of your keyboard or your numeric keypad. Entering the letter "**O**" may look the same to you but it will confuse the computer.

Adding & Subtracting Time

It is possible to add or subtract time in the **Input** window (or in any other feature that receives an input time) by placing a plus (or "=") or a minus sign after the initial number you enter and then typing in the amount you want to add or subtract. All the conventions for entering a particular type of timing (specific letters for each type of SMPTE, the slash / for feet/frames, etc.) pertain to this entry as well (e.g. **+/8** or **-s10**).

You can **create a new cue point** by adding and/or subtracting time from an existing cue point with this feature as well. With a selected cue point entered in the **Input** window as a starting point, **Tab** or click immediately to the right of the number. Add or subtract the time to the cue point you wish to create, by beginning with a plus (+ or =) sign or a minus (-) sign, and typing your number using the protocol of the timing system you are in (/, :). Hit the **Tab** key, when you are finished entering the number, and the cursor will move to the description area for cue information. Now click on **OK** or **Enter**, and your cue list will have a newly entered cue point.

The only wild card piece of information in this area concerns adding and subtracting measures and beats. If you are working with a single **Tempo** from beginning to end of the cue then you can proceed as described above, but if you have been making a lot of **Tempo** changes, simply adding measures or beats to an existing timing point may not give you an accurate result.

CUE converts measures and beats to the time specified at that measure and beat input point. If, for example, you added or subtracted the input expression **M3B4**, **CUE** will take the **TIME** at **Measure 3, Beat 4**, and add or subtract it to your previous number. By entering an existing timing point into the **Input** window, you will always be adding measures and beats to some other type of time format (feet/frames, SMPTE, etc.). In this case, **CUE** assumes that you are describing measures and beats from the beginning of the cue.

Should you have varied the **Tempo** sufficiently, the result will be that a slightly incorrect time will be added in.

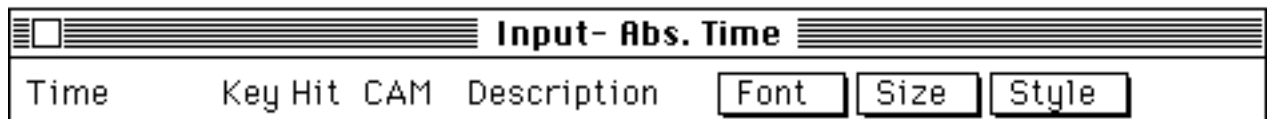
The way around this is to always add or subtract measures and beats to measures and beats ($m_3 + 4b_2 + m_3 + b_4$). When you do this, **CUE** will calculate the combined number of measures and beats and convert that into a time, taking into account all fluctuations in **Tempo** and **Meter**.

The Cue Point Description

Anything may be entered in the **Description** field. At times you may find it necessary to include a lot of detail concerning a particular timing point. **CUE** lets you enter up to 24 lines of text. If you need more space than this, then take heart, if you ever finish your cue sheet, you could probably publish the document as a novel and advertise it as having more pages than Gone With the Wind.

Varying The Look of Your Text

Whenever the cursor is in the **Description** field, the **Font**, **Size**, and **Style**, buttons will become enabled, allowing you to select and change the type of font, it's size and/or the style that the selected material is displayed in.



These three buttons work in a similar fashion to other Macintosh writing applications. Pop-up menus appear when you click on each one of these buttons providing you with those fonts, font sizes and font styles which are installed in your computer. You can change these items at any time when entering your cue point descriptions:



Click and hold on the **Font** button. You will find that one additional item has been added to the top of the menu which is unique to **CUE**:



Set Default to . . . allows you to select the basic font which will be used for

all printable documents in your current production set, with the exception of font, style, and size changes made to your cue point descriptions. **Set Default to. . .** will always display the most recent font chosen. If you select a font on your first click of this button, and you release your mouse button over this title on a second pass, your entire **Cue Sheet** will adopt the currently displayed font. Take care that you do not accidentally click twice in this manner when a font is displayed which was not meant to be the default setting.

The **Set Default to. . .** feature is primarily intended to give those of you with laser or other high-resolution printers a choice of type styles which will be consistent with the built-in fonts of your printer.

Some Text Editing Conventions

Although you have total freedom of entry, there are a few helpful tips for what you write:

There are several places in **CUE** such as the **Score Page**, the **Clicks** window and one part of the **Tempo Search** where because of limited space, your **Description** is abbreviated. If you can pack some recognizable key phrase into the opening words of your **Description**, you will help yourself in the long run. For the time being though, don't worry about it. This comes under the classification of "fine tuning".

If you are new to the world of Music Editorhood it will be useful for you to learn a few of the conventions used in putting **Cue Sheets** together. Using a relatively agreed-upon description format for each cue point will create less confusion when several people have to use the prepared cue sheets:

Dialog is capitalized.

Capitalize the word in your description that occurs right at the timing point you have noted:

(The window SHATTERS. Joe ran across the room and SLIPPED.)

Abbreviations:

BG	Background	FS	Full Shot
CU	Close Up	INT	Interior
DIAL:	Dialog	LS	Long Shot
ECU	Extreme Close Up	MS	Medium Shot
EL	End of Line (of dialog)	NARR:	Narrator

EOR	End of Reel	O.C.	Off Camera
EXT	Exterior	O.S.	Off Stage
FG	Foreground	POV	Point of View
FI	Fade In	SFX	Sound Effects
FO	Fade Out	ZIR	Zirconium

To reverse the case of a portion of your text, select the text you wish to modify, hold down the **Command** key and hit the reverse apostrophe key (^). Should your text be all upper case it will become all lower case and vice-versa. Mixed upper and lower case text will still be mixed, but all the letters will be the opposite case of what they were.

If you want to take a block of lower case text and capitalize the first letter of every word, select the text, hold down the **Command** key and hit the semi-colon (;).

In case you can't remember these two commands, you will be able to find both of them in the **Edit** menu.

One more editing convention can be found in a pop-up menu labeled "TEXT BETWEEN QUOTES" in the **Set Cue Sheet Formats** dialog box . This lets you choose between the standard text styles (bold, italics, etc.) when you are typing a description in the **Input** window. Whenever you type a quotation mark, the text style will automatically switch to the choice you made with the "TEXT BETWEEN QUOTES" pop-up menu. When you type another quote, the text style will return to the current font **Style** selection.

This feature does not change dialog already set in your **Cue Sheet**, or what you have just typed or selected for the current **Input** description window.

Other Input Window Editing Tools

In the **Edit** menu you can also select **Cut**, **Copy** and **Paste**. These function in **CUE** just as they do in any other Macintosh program. Since this comes under the category of basic familiarity with your Mac, we will not go into detail on this. Suffice to say that by selecting a block of text from the **Input** window and choosing **Cut** or **Copy**, you can **Paste** it into another cue point.

A HELPFUL TIP: When you are entering a series of SMPTE cue points that are close together, you can **Copy** the prefix, minute, and colon from the first cue point into the **Clipboard** (for example: s7:). By **Pasting** this into the **Time**

field, you only have to type in the second and frame on succeeding cue points, thus saving yourself a good number of key strokes.

The Key Hit Box

When you search for tempos, most probably, you will not want **CUE** to search for a tempo that catches every single entry on your **Cue Sheet**. As music editors do, you will probably find yourself noting cue points that help you to see the continuity in the scene you are working on even though you there is no intention of catching each of these with any kind of specific musical touch.

By clicking on the check-box marked **Key Hit** (or typing **Command-h**), you are telling **CUE** that this particular timing point is one of the cue points that you are interested in catching with your music. An "X" will appear in the check-box which means that a check mark will be placed in the **Cue Sheet** margin to the right of the **Time** entry as a reminder that this cue point is a **Key Hit**. A second click (or typing **Command-h**) will turn the "X" off.

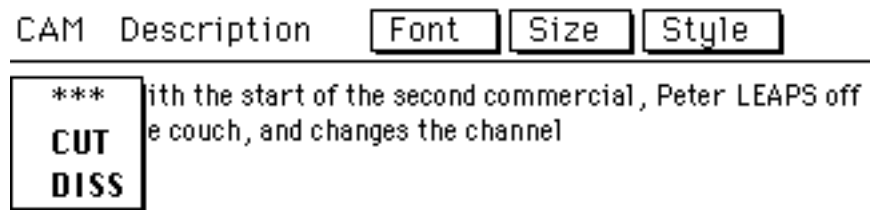
Time	Key Hit	CAM	Description	Font	Size	Style
32.4	<input checked="" type="checkbox"/>	***	With the start of the second commercial, Peter LEAPS off the couch, and changes the channel			

Stop Watch
 Move
Punch Only
OK Clear

The CAM Box (***, CUT, & DISS)

Film editors often note whenever there is a cut or a dissolve from one scene to another. To save you the trouble of writing this out each time one occurs, all you have to do is click on the pop-up menu button under the word **CAM**. When you do so, a little pop-up menu will appear giving you a choice of either **CUT** or **DISS** (dissolve) in addition to the three asterisks. The word that you select will now appear in the box taking the place of the three asterisks. When you click on **OK** or hit the **Enter** key the chosen word will be placed on the **Cue Sheet** to the left of your description

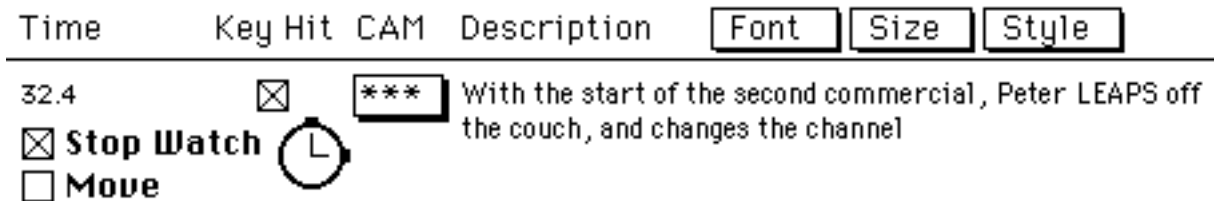
Another way to select **CUT** or **DISS** is to type **Command /** once or twice. This will allow you to toggle between the two words without having to use your mouse. Typing **Command /** a third time will re-display the three asterisks and turn this feature off.




The Stop Watch

Another very handy feature available to you in the **Input** window is the **Stop Watch**. It works very simply by clicking on the check box labeled **Stop Watch**.

The first click gets the **Stop Watch** ready. You will know that you have clicked successfully because the button will be highlighted and a **Stop Watch** icon will appear to the right.



Either clicking on the mouse or hitting any key will start and stop the **Stop Watch**. You will know the **Stop Watch** has started because the face of the watch will become black with white hands.

Time	Key Hit	CAM	Description	Font	Size	Style
32.4	<input checked="" type="checkbox"/>	***	With the start of the second sitcom, Peter LEAPS off the couch, and changes the channel			
	<input checked="" type="checkbox"/> Stop Watch					
	<input type="checkbox"/> Move					

The next click or keystroke stops the **Stop Watch**. At this point, the watch face will disappear. Most important of all, the elapsed time you have just clocked will appear under **Time** in the **Input** window.

In case you have no access to a movieola or a video tape with visible SMPTE numbers, you could take a timing by starting the **Stop Watch** at the point you want your music to begin and stopping it at the event whose timing you wish to catch. Since the **Stop Watch** places the time in the correct place in the **Input** window, all you have to do is describe the event you have just timed, click on **OK** and go on to the next event.

If the time you want to catch is a long way from the beginning of your cue, you can time from any point in your cue by typing that point into the **Time** field of the **Input** window. Now when the stopwatch starts it will be from that timing point instead of zero.

The MOVE Checkbox

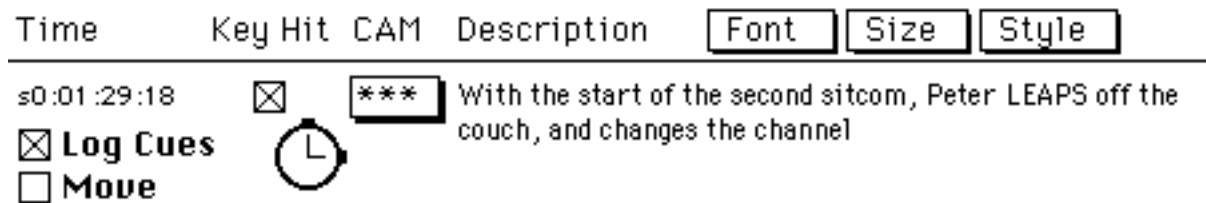
CUE does not assume that by editing a previously created cue point, you necessarily want to delete that entry from its original place in the **Cue Sheet**. Often, a cue point contains a description which you want to retain, changing only the time for your next cue point. If you change your mind about a cue point however, or wish to simply move it to another spot in your **Cue Sheet**, put a check in the **MOVE** box. This will move the entire cue point entry to the new time you have entered in the **Input** window, and delete the original.

Logging Multiple Cue Points on the Fly

Our **Stop Watch** is also a lap timer capable of storing up to 30 lap times. What this means is that you can grab either 30 different cue points or dialog ins and outs on the fly and then go back at your leisure, and generate **Descriptions** for them later. Here is how to log these multiple lap times:

First go up to the menu labeled **Reel World** and select **Log Cue Points**. Notice that in the **Input Window**, the words **Stop Watch** have been replaced by the phrase: **Log Cues**.

The first time you click on the words **Log Cues**, you will see the white watch face appear just as you did when you were operating the basic **Stop Watch**.



Your next click will start the **Watch**, and from here on, anytime you click the mouse you will Log another cue point provided you don't exceed 30 different events. You will know that the **Watch** has started because it's face will be highlighted in black, and you will be able to tell that you have exceeded 30 timing points because after 30, the **Watch** face will disappear and the time of the thirtieth timing point you logged will appear in the text area where **Time** is displayed.

If you are entering less than 30 timing points, log the last one in the series by hitting any key on the keyboard in order to turn off the clock. Give this a try with a number of random timings so you can get a feel for how this works.

Now you are ready to enter these cue points into the **Cue Sheet**.

If the **Time** entry area is not highlighted, hit the **Tab** key until it is. Then type **L1** (you can also use the lower case **L** if you wish). This stands for logged timing point #1. Hit the tab again to highlight the description area and now you are ready to enter some text. For purpose of this example you may want to type the same event number in the text area as well so you see which events your random timing points correspond to. When you hit **OK** or the Enter key, you will see the running time that you captured as cue point **L1** appears on the **Cue Sheet**.

Proceed to type **L2**, **L3**, and so on, describing each one until you are satisfied or until the series you entered is complete. When the last cue point you logged in this manner has been described, you will not be able to enter any more timing points. **CUE** will beep at you and the **Timing** entry area will highlight letting you know you have come to the end of your string.

A suggestion: If you are going to be grabbing a number of cue points on the fly, it helps to be organized in terms of knowing what you are going after. It may be possible for you to remember all twenty six timing points you hit, but it is more likely that you may confuse the end of a particular piece of dialog with a cut or a gunshot. One way to proceed might be to go for all dialog on one pass, all efx on another, etc.

Note: If you enter less than 30 timing points and don't hit the **Clear** button, you will resume timing from the last point you entered should you start the **Watch** again without creating **Descriptions** for those points you already logged. Clicking on the **Clear** button will remove this information so you can enter times starting at zero. On the other hand if you want to enter timing points from some place other than zero, simply enter that time in the **Timing** entry area and the **Stop Watch** will start logging from the time you entered.

Automatic Timing Points Entry

This is an aspect of **CUE** that can save you a major chunk of time. It permits you to pause the video copy of your film at a point you wish to log into the **Cue Sheet** and automatically enter the SMPTE number into the **Time** entry area of the **Input** window with a single keystroke.

Before you begin grabbing these numbers without having to type them out, there are several preliminary steps. The first of which involves having your video tape prepared correctly.

VITC & LTC - The SMPTE Twins Revealed

There are two generic types of Time Code:

One is Longitudinal Time Code (LTC). This is the one that most of us are used to dealing with. It comes in different flavors (24, 25, 30 frame, etc.) and is an audio signal generated onto or read from your video or audio tape.

The second main type is Vertical Interval Time Code (VITC) which is embedded

into the video signal (if you request it) and is read by hooking up the video signal to a box that will convert the VITC to LTC.

There is a very important reason for bringing up VITC at this time:

While **CUE** is capable of grabbing a Longitudinal Time Code (LTC) number on the fly, and can also pick off a number with the tape running at slightly slowed down speed, **CUE** along with everything else which reads LTC, is incapable of reading a number from a freeze frame, or for that matter from a tape that is rolling too slowly. In addition, should you be working with a 1/2" format video, in almost every case the sound will disappear as soon as you start to slow the tape down.

What this means is that if you want to rock your video back and forth, find the exact frame, freeze the tape and then click that number into the **Cue Sheet**, you will have to do something else. This is where VITC comes in.

When we freeze a video image, that single frame gets sent out 30 times/second (like regular full speed video) so that we can view it on our monitor. Since VITC is embedded in the video signal, it is also getting sent out at 30 frames/second. As a result, just as the monitor thinks it is getting continuous video even though it is only getting the single frame sent to it again and again, a device reading the SMPTE number will also be perfectly happy to accurately read that single SMPTE frame number because it is receiving the SMPTE number at what seems to be regular speed (30 frames/second).

Although many video editors get very adept at grabbing frames with the tape slightly slowed down, it does lack a certain degree of ease and accuracy. If you want the extra precision of VITC, make sure that you request your video tape with VITC as well as Longitudinal Time Code. Then, hook your VITC to LTC converter up to a SMPTE/MTC converter that is in turn connected to the MIDI input going to whichever port you have set as the sync port in the **MIDI Setup** dialog box of the **Reel World** menu.

VITC to LTC Converters

The basic process of splitting your video signal is made easy by the manufacturers of the hardware necessary to convert VITC to LTC. Standard operating procedure seems to be placing a video-out on the back of these boxes thus making it easy for you to route your video signal over to the monitor after

you have sent it to through the converter.

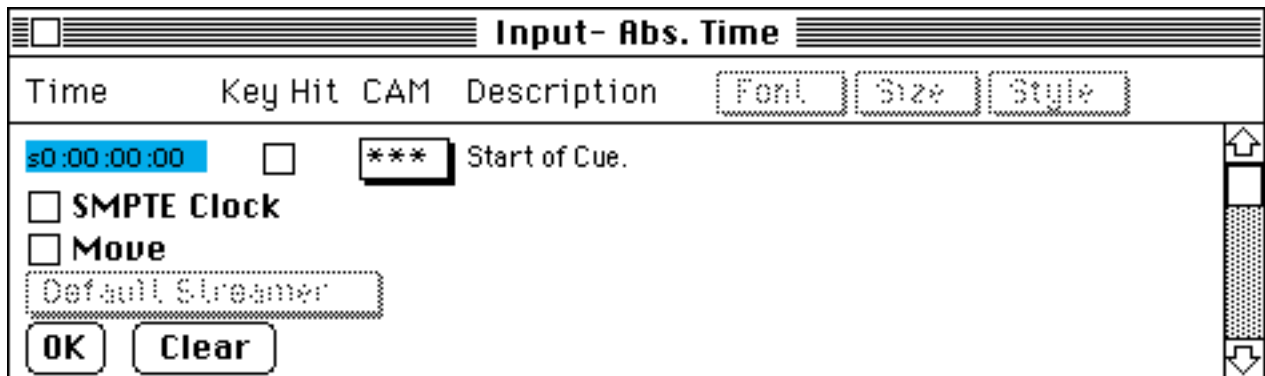
Telcom and Evertz Microsystems are two Canadian companies that make converters (Evertz VITC Reader/Translator Module 622, Telcom VITC) which work perfectly with CUE.

When your hook up is complete, you are now ready to roll.

Grabbing SMPTE Without Getting Dirty Hands: Back to Automation

First click on the **Operations** menu and select **Set Formats**. Organize the **Time Formats** page so that your **Cue Sheet** will be displaying the same SMPTE format that you are about to read from the video. As with standard typing of cue points, your **Cue Sheet** will make much more visual sense this way.

The next item on our check list is to lock **CUE** to SMPTE. This can be done by clicking on the **Reel World** menu to access the **Options** dialog box where you can click on: **Lock to Time Code**. An easier way to do this is to hold down the **Command** key and type the letter **E**. When you lock to time code, the **Stop Watch** area of the **Input** window will be changed to read **SMPTE Clock**.



Clicking on the **SMPTE Clock** check box will activate this feature. To have it capture a number, all you have to do is roll your video tape to the frame you want to capture. The clock will turn black to indicate that it is getting SMPTE. When you click on the mouse, that SMPTE number will appear in the **Time** entry area of the **Input** window.

Remember: if you are using LTC then you will have to grab your timing points

on the fly. When you are using a VITC converter, you have the luxury of pausing the video tape before you hit the key which automatically enters the video frame number. In either case once the number has appeared, you can type your description into the highlighted **Description** area and click on **OK** (or hit the **Enter** key).

Fine Tuning the VITC to CUE Coordination

All of us at one time or another have probably seen a line of visual "static" running from left to right across a freeze-framed video image. This is called the noise bar. In order to give us nice, clean freeze-frames, some video players shove the noise bar out of our sight completely above the picture. These players will not read VITC well because this area above the frame is exactly where the VITC information is stored, and the noise bar acts as a distorting mask which gets in the way of the VITC reader. To insure successful VITC reading, make certain you are using a video player that parks the noise bar where it is visible.

Since this noise bar is the dividing point between video frames, the VITC number that you capture might be one frame off from the SMPTE window depending on whether your video player parks the noise bar at the top or bottom of the screen. To avoid this annoyance, click on the **Reel World** menu and select **Options**.

Options

MIDI Clock Out Accented Downbeats
 Start After Count-Off

Song Pointer Mode: Fast Med. Slow S L O W

Send Clicks as MIDI Events Channel Note

Lock to Time Code (#E) Wait for MIDI Start

SMPTE Clock Adjust: - + Frames

Down at the bottom of this dialog box is a feature labeled **SMPTE Clock Adjust**. You can place any number up to 9 in the little text entry box and indicate whether this is to be a plus or minus compensation by clicking on the appropriate button.

In the case of the number in **CUE's Input** window always being one more than that which is displayed on your screen, click on the minus button, enter "1" and then click on **OK** or hit the **Enter** key. Once you have adjusted **CUE** to deal

with the idiosyncrasies of a particular set-up, you should be fine for the rest of the entries you are making during that work period. The **SMPTE Clock Adjust** is saved as a default.

You may find this feature useful when you are grabbing LTC cue points on the fly. It is possible to adjust for the rather predictable human delay times caused by our less-than-perfect response time.

When you select **Log Cue Points** from the **Reel World** menu while reading SMPTE from an external source, your **Log Cues** check box will be labeled **SMPTE Log**.

3 Working With Cue Sheet Information

OK, you have now been saturated with a big blast of information about the **Input Window** and a lot of you have probably been trying out some entries as you've been reading. This however is the official "let's go do it" place in the manual.

What follows is a series of sample cue points for you to copy into **CUE**. Before you start working on our sample cue, make sure that the **Input** window is set to receive **Absolute** timing information. (see page 26).

When you have entered the mandatory **Time** and **Description**, and clicked on the **Key Hit** and **Cut** information where needed, you are ready to log your cue point into the **Cue Sheet**. This is done by clicking on the button that is labeled **OK** (or hitting the **Enter** key). After you click, you will see that the information you typed now appears in the middle of the page on the **Cue Sheet**, and that the **Input** window is clear and waiting for your next entry.

If you wish to clear the entire contents of the **Input** window while you are working in it, then click on the button marked **Clear**. This removes text while still allowing you to remain in the window. If you want to remove text from a specific field such as **Description**, you can select it by dragging the cursor across it and hitting the backspace key just like in MacWrite.

Should there be an error in the **Time** field or if the **Time** field is empty and there is information in the **Description** field, when you hit **OK**, **CUE** will beep and select the **Time** field so that the time can be re-entered.

Viewing Both Timing Columns

Since we have set up our **Cue Sheet** to show two columns of timing information, it would be good to view them simultaneously as we make our entries. This can be done by using the scroll bar at the bottom of the **Cue Sheet** window. For your convenience, clicking on the shaded portion of the scroll bar will move the **Cue Sheet** back and forth, either revealing both columns of timing information or showing the **Tempo** information along with the second timing column.

There are other ways to move the **Cue Sheet** page horizontally. The easiest is hitting the **Tab** key which will bounce you back and forth. You can also move the scroll bar by clicking on and dragging the little box (or thumb as it is called) or for more delicate adjustments, click on the arrows at either end of the scroll

bar and hold down the mouse button until you get where you want to go.

A large screen can render this process unnecessary because the **Cue Sheet** window may be expanded to the width of the whole **Cue Sheet** and the height of whichever screen you are using.

Splitting the Cue Sheet

If you don't have a big screen, but want to see the measure and beat information on the right of the page as well as both timing columns to the far left, then click on the menu labeled: **Misc** and select **Split Cue Sheet** or hold down the **Command** and the **Option** keys and type the letter **S**. This will cause both sides of the Cue Sheet to be displayed on the small screen. What you lose sight of in this mode is the complete width of text. You will see a double line moving vertically down the middle of the page showing you where the text has been lopped off. Generally, enough of your initial text should be visible for you to know where you are in the cue. If you want to **undo** this center truncation, just repeat this process (**Command/Option S**) and the **Cue Sheet split** will vanish, restoring your complete description area.

What, you don't like where we placed the **split**? Well you can move the position of the split line as well. Just for that particular **Cue Sheet** which just can't be truncated any other way; select **Split Cue Sheet** in one of the ways described above. When the **Split** line appears, you will notice a small darkened area at the top of the double line. Clicking on this area and holding the mouse button down will allow you to drag the Split line to wherever you would like to have it on the **Cue Sheet** window.

Sample Cue Information

<u>Time</u>	<u>Key Hit's</u>	<u>Description</u>
s1:0:10:00***		The night sky fades in
s1:0:12:15	yes	A shooting star arcs across the heavens
s1:0:15:11 descends		Camera pans down to follow the star as it behind some hills
s1:0:19:19 the	yes	CUT FS view of a glowing crater left by the impact of star.
s1:0:21:14		Start to pan in toward the center of crater
s1:0:25:17 center of sheer surface reflects the glowing on the ground around it.	CUT	MS of a large shining egg that is sitting in the the low crater. It's embers

***Remember that since you entered the SMPTE hour in the **Running Time** dialog box, you should **not** type the SMPTE hour as you enter times in this format.

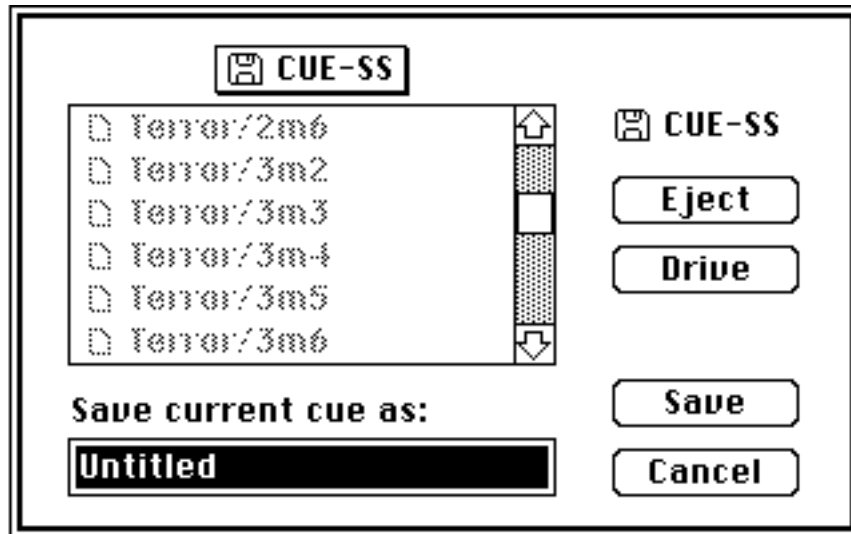
When you enter your first cue point you will notice that several other items have popped into existence. Your **Cue Sheet** now shows how many **Warning Clicks** will precede your cue, what your starting **Meter** is, and also displays the **Total Time** of the cue. You can adjust both the **Warning Clicks** and the **Meter** but we will deal with them later in the manual. The **Total Time** will change as you add more cue points.

Also notice that to the right of the descriptions (you may have to use the **Split Screen** feature, scroll or **Tab** over to see this), the **Cue Sheet** is telling you what beat and hundredth of a beat each one of your cue points falls on. The default tempo setting of **CUE** is **12-0** (a 1/2 second click) and so it is displaying click information at that tempo. Don't worry about this for the moment. You will be searching for the ideal tempo very soon.

Should you wish to remove a cue point you have just entered, click on the **Edit** menu and select **Undo** or type **Command Z**. If you have made no other entries, selecting **Undo** or typing **Command Z** a second time will undo the **Undo**.

Saving the Cue Sheet

Before we go on to do any further work with our sample cue this might be a good time to save it. Your **Cue Sheet** can be saved by clicking on the **File** menu and selecting **Save Cue**. A dialog box will appear asking you to "Save current cue as:"



After you have given it a name, click on the button marked **Save** (or hit the **Enter** key). As with almost all Macintosh dialog boxes if you wish to resume work without saving anything, simply click on the **Cancel** button. If you are working on a file that you have already given a name and **Saved**, then the next time you **Save** it, **CUE** will automatically update your file under the name you have given it. Try selecting **Save** again. The disk drive will whir for a few moments and then you will be able to proceed.

Should you want to save your updated cue without modifying the version you have already saved, then select **Save As** from the **File** menu. You will be presented with a hierarchical menu that will let you either save your work as as **Cue**, a **Score**, or as a **Title Page**. Slide the cursor over until **Save Cue as** is highlighted, and release the mouse button. We will deal with the last two items in this menu when we come to the sections of the manual about the **Score Page** (page 159) and the **Title Page** (page 108).

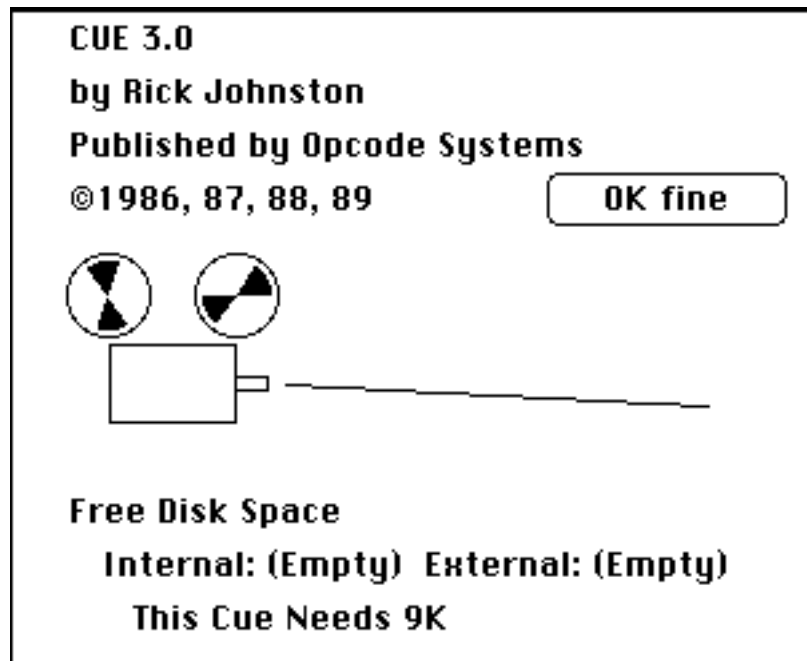
After you release the mouse button, you will see a dialog box open up that has the original file name under "Save current cue as:". By renaming it, you will save it

as a different file thus preserving the previous version intact under the old name. Beware: if you do not rename your file, the old version will be replaced and lost.

Save your files frequently while you are working on them. You will probably find this admonition in every computer manual you read. The bottom line is, you never can tell when Godzilla may bite through your local power lines and send your unsaved work into the ozone. Another good tip is to back your files up onto another disk at the end of any work period.

All About CUE

As an added assist to saving your file, you can see how big the file is and how much available disk space you have on your drives by clicking on the **Apple** menu and selecting **About CUE**. Clicking on the **OK fine** button removes this window.



Auto Backup

This is an option that has been provided for you so that you can save your previous file along with the newest version to be saved, or save a duplicate of your newest file update. Although backing up your entire disk should prevent

you from losing data, having an extra copy of each cue on your actual work disk provides you with an extra level of security.

Auto Backup works in the **Save** (not **save As**) mode only. It is optional because there may be some people who do not wish to take up the extra disk space necessary to store these backups.

To engage this feature, click on the **File** menu and select **Auto Backup**. If you want to make sure you have done this correctly, click on the **File** menu again and you should see a check mark to the left of the words: **Auto Backup**.

When you **Save** a cue, **CUE** will check the disk to see if that file already exists. If it does, **CUE** will rename it "*bak.filename*" before saving the new version of the cue. What this means is that you now will have saved the next to the last version of your file as your backup. If you want to save two identical copies of your most recent version of the cue, then select **Save** twice in a row.

Naming Your Files

A word of important advice on naming your **CUE** files: **Save As** lets you choose the title under which the cue is saved to disk. This is different from the cue title you gave it in the **Set Cue Info** dialog box. **Set Cue Info** provides an internal name for the cue that is useful within **CUE**. The name you give your file is the one which will appear under the Cue Icon in the Finder.

If you are working on a project with multiple cues in it, then the suggested naming procedure is to create a **production code** to use as the beginning of each file name. After creating your consistent production code title, place a **slash** ("/") and something to make that filename unique. In most cases this unique part will be the cue number.

The film title of the example used throughout this manual is called Zarkov Unchained. If you use "Zarkov" as your production code then the name used to save the first cue in reel one which has been entered on the **Cue Sheet** can be called "1m1"- the whole title then is: Zarkov/1m1. Any other cues you save from the same film would all be preceded by the same code, (Zarkov/6m2, Zarkov/3m5, etc.).

The usefulness of taking the trouble to do this will become clear when we deal with the **Master Cue List**, **Spotting Notes**, and the **Performing Rights Cue List**. In both these applications, CUE uses file names to locate all the cues from a particular production: ("Zarkov").

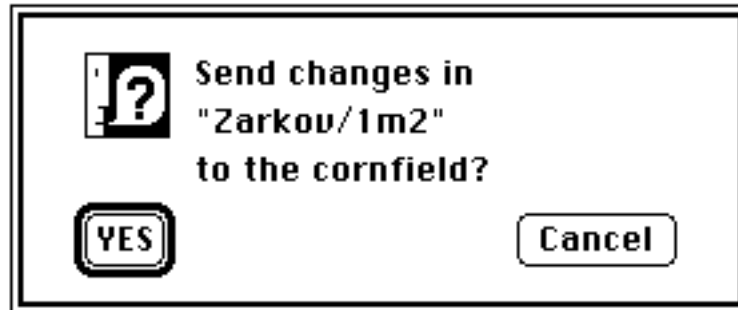
Do not be concerned about all your backup files ("*bak.filename*") creating a lot of unnecessary duplication by appearing on the **Spotting Notes**, **Master Cue List** and the **Performing Rights Cue Sheet**. The reason CUE puts "bak." at the beginning of the name is so CUE will ignore these files when it goes searching disks for a particular production code name.

If you are using 800K disks, or a hard disk initialized with the Hierarchical File System (HFS), you will have to use the production code when naming your file folders: (Zarkov/Reel 1, Zarkov/Reel2). On MFS disks, folder names are ignored. While this means MFS users don't have to be as meticulous when labeling folders, careful naming does help to keep your files organized.

Big Fat Note: This is the first of several places in the manual where we want to caution you not to place your cues in a folder with any name on it other than that of the specific production you are working on followed by a slash (/). If for example, you place all your files in a folder marked "CUE Folder", when you go to compile your **Spotting Notes**, **Master Cue List** or **Performing Rights Cue Sheet**, CUE will not be able to locate the files you are trying to work with, resulting in consternation, frustration and a phone call to find out why your CUE won't do this advertised task.

Restoring Your Cues

If for any reason, while you are working on a cue, you wish to return this cue to the last version you **Saved** click on the **File** menu and select **Revert**. You will be presented with this dialog box:



Clicking on **Yes** will reopen the previously **Saved** version of the cue. If you made a mistake by calling up this dialog box then click on **Cancel** and it will go away without affecting your current cue.

Clearing Your Cue Sheet

To clear your **Cue Sheet**, click on the **File** menu, select **New**, and you will be given an option to save any changes in the current cue. After you make your choice, the **Cue Sheet** will be cleared of all cue point entries. Any of the information you previously placed in the **Set Cue Info**, **Set Production Info** and **Set Formats** dialog boxes (see pages 15, 19, 24, 65, and 116) will be retained except for **Written**, **Orchestrated**, **Copied** and **Recorded**. The assumption is that if you are entering multiple cues on a given project, most of this information will remain the same. All you will have to update in most cases is the **Cue #** and the **Cue Title**.

Modifying the Cue Sheet

Editing Cue Points

Making changes to a cue point which is already part of the **Cue Sheet** is an easy matter. If the **Cue Sheet** is the front window, clicking once on any part of the cue point line, and holding the mouse button down, will cause a pop up menu to appear that looks like this:



This menu is a great little time-saver. When it first pops up, the word **Edit** will be highlighted. This means that when you release the mouse button the **Input** window will appear with that particular cue point entered into it ready to be edited. If you want to change whether or not this cue point is a **Key Hit**, simply selecting the words **Key Hit** in this menu you will switch the status of this cue point without you having to call up the **Input Window** so you can click on the **Key Hit** box.

The other items in this menu will be dealt with in other sections of the manual. **Nudge up** and **Down** on page 58, **Accel\Ritard** on page 132, and **Move Cue Points** on page 81.

Lets find a cue point for editing purposes. Open the sample file,"Zarkov/1m2, or the completed sample cue you have hopefully stored. As we have described before, clicking on any visible part of your **Cue Sheet** window will bring it forward, if other windows have been placed in front of it. You can now use the scrollbar at right to find a cue point you wish to edit, should the length of your cue place the point you are looking for off the screen. In the case of "Zarkov/1m2" the single cue point of the cue will be front and center. Your sample cues may take some scrolling. Click anywhere on the cue point line. The pop up menu will briefly appear with the **Edit** line flashing, and then immediately open the **Input** window for you.

Remember that once you have made changes to the cue point you are editing, you will have to click on the **OK** button (or hit the **Enter** key) to update this cue point on the **Cue Sheet**. If you decide against these changes before you have hit **OK**, you can either highlight the **Time** and **Description** and replace what is currently showing, or click on the **Clear** button to clear the whole **Input Window**.

You can get rid of an edit you just entered either from the input window or the **Cue Sheet** by clicking on the **Edit** menu at the top of your screen, and selecting **Undo** (or type **Command Z**).

As we have mentioned elsewhere in the manual, don't forget the "power keys" which you can use to type in various commands without having to select a window and click on a selection using the mouse. Mice are notoriously slow. Note the "clover leaf" **Command** symbol, **opt** symbol, and then a letter next to many of the selections in various menus. Holding the **Command** key, or **Command/opt** combination (if both are present) down while you press the indicated letter will create the same result as clicking on the menu and selecting an item. Memorizing the "power keys" for your most frequently used commands can take a great deal of operating time off your paperwork, and leave more time for composing (or a night on the town).

Back to the sample "Zarkov" cue which was entered before. Let's decide that we want to make the medium shot of the egg at s1:0:25:17 into a **Key Hit**. Go to the **Cue Sheet** and edit this cue point to get a feel for the process. Also proof read what you have typed to see if your typing has provided you with any other opportunities to edit our little cue.

Nudge Up/Nudge Down

This little feature increments or decrements the time of your selected cue point by the smallest division of your current **Time Format (Command-A)**. If you are entering **Absolute SMPTE NDF (B&W)**, the nudge divisions will be one frame.

Deleting a Cue Point

There are three main ways that you can delete a single cue point.

The first method is achieved by clicking the offending cue point into the **Input** window just as you did when editing. You can now delete it by going up to the **Edit** menu and selecting **Delete Cue Point**. A variation on this is to type "**Command d**".

A second cue point deletion technique is to type the time of the cue point you wish to delete into an empty **Input** window. Typing this time into an **Input** window which has no description information, and then clicking on the **OK** button (or hitting the **Enter** key) will remove the cue point from your **Cue Sheet**.

You can undo your most recent deletion by clicking on the **Edit** menu and selecting **Undo** (or type **Command Z**).

A third method of deleting a cue, or number of cues, can be achieved with fewer keystrokes than the methods above. Hold down the **Shift** key and click the mouse button over the line or lines you wish to delete. Then hit **backspace**, **delete** (on newer keyboards), or the **clear** key. A dialog box will appear:

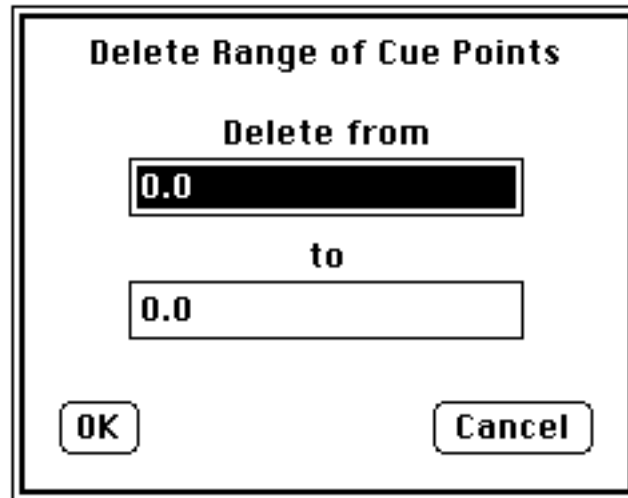


Click on the appropriate answer, and the cue sheet window will return with the selected cue or cues deleted.

Type a bogus cue point or two into the sample cue you are working on and try all of these methods of deletion to see which ones you like better.

Deleting a Range of Cue Points

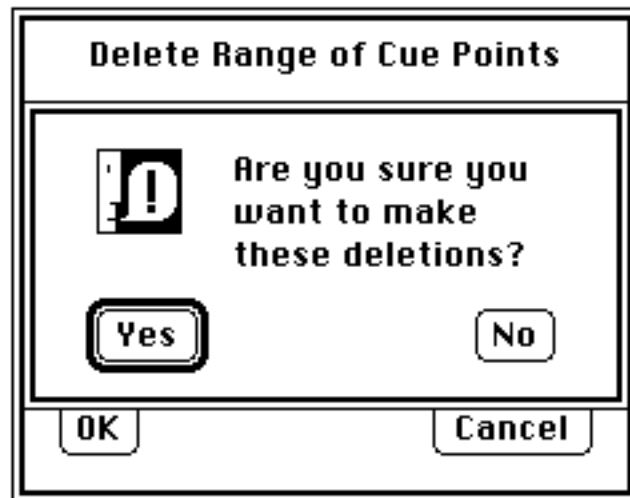
There is also a more precise way of deleting a range of cue points. The following dialog box can be brought up in the **Edit** menu under **Delete Range**:



Deleting a Range will work in either **Absolute** or **Relative Time** so make sure that the footages you are typing into the dialog box are taken from the time column that corresponds to the way the **Input** window's title bar reads.

You can use the **Tab** key to move between the two boxes, or use the mouse to move the cursor into place. Timing information can be entered in **feet/frames**, **minutes:seconds**, **SMPTE** timings or **measures and beats**.

Place the time of the first cue you wish to remove in the box marked: **Delete from**, and the time of the last cue in the series you wish to delete in the box marked: **to**. You can now begin to vanish all the designated cue points by clicking on **OK**, (**Cancel** returns you to the **Cue Sheet**). There is a fail-safe step to prevent you from incorrect deletions, so before you can complete the process, this extra dialog box will appear:



If you want to proceed, click on **Yes** and your deletion will be complete.

IMPORTANT NOTE: Deleting these cue points will **NOT** affect the length of your cue. By removing them, you will now be able to use the **Change Cue Length** feature in the **Operations** menu to make the necessary time deletion.

Converging Cue Points

CUE is so precise that it distinguishes between very small variations in time. When you switch time formats (from SMPTE to feet/frames for example), the different resolution factor between the two formats may exaggerate the on-screen rounding off just enough so the program won't recognize the cue point you wish to delete or edit.

As a result, when you ask **CUE** to remove a point that is different from any stored in its memory, it may balk. When you are editing such a contrary cue point, you may end up with a duplicate cue point that is just a hundredth of a second different.

There are several ways you can deal with this:

The Mystery Feature

Perhaps the best way to deal with this problem is to go to the **Cue Sheet Formats** sub menu of the **Set Formats** menu located in the **Operations** menu and make sure that the **Mystery Feature** is clicked on.

This means that if you are trying to delete or edit a cue point which varies from the time stored in **CUE**'s memory because you are now working in different format from the one you originally chose, **CUE** will recognize this minute difference and let you delete or edit without having to make any further adjustments to the time.

One of the few conditions where you might want to disable this feature will be for **Cue Sheet** entries less than ONE FRAME apart. Under this circumstance **CUE** might become confused, and you may want to employ **Justify Timings** to solve the problem.

Justify Timings

The second way to continue working in a time format where you are having difficulty deleting a cue point is to actually make the internal timings conform to the ones you want to edit in. Internal times are not rounded off every time you change formats, as this could have a cumulative effect which might cause your timings to "wander" from their original points.

If you do not need to make great numbers of small shifts, then conforming the internal timings to the display will not cause any problems. Click on the **Operations** menu and select **Justify Time**. Notice that in parenthesis next to the words **Justify Time**, you are told whether **CUE** is currently set for **Relative** or **Absolute** time. **Cue** will **Justify Time** in either format, according to the one you have set for your current **Cue Sheet**.

When you select **Justify Time**, the following dialog box will appear as a precaution to give you the opportunity to chicken out.



If you wish to continue, click on **OK** or hit the **Enter** key and the cue will be justified. To abort this process click on **Cancel**.

Cue Sheet Wrestling

Another method for dealing with problem cue points is to go back to minutes, seconds and hundredths of a second, or move to **Relative Time**, if it is in seconds and hundredths.

One final suggestion is to revert to the time format that you entered the cue in and make your deletions or edits.

Printing Your Cue Sheet

In order to print your **Cue Sheet**, select **Print** from the **File** menu. When you do so, a hierarchical menu will appear giving you the choice of printing a wide array of documents that **CUE** is able to generate. Each one of them is discussed in their own part of the manual. For the time being we are only concerned with **Print Cue Sheet**, so select this (or type **Command P**), and you will be presented with the standard Macintosh printing options. Make the appropriate choices and click on **OK** (or hit the **Enter** key).

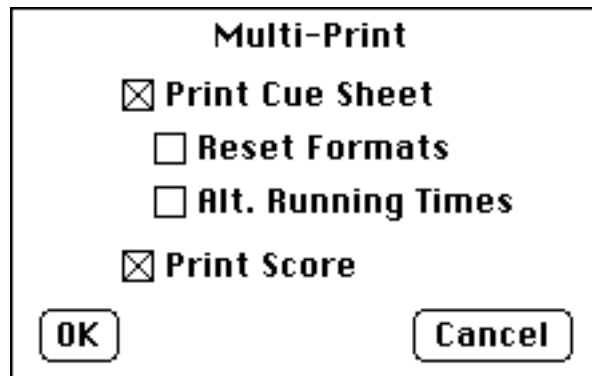
CUE will put the date and time on every **Cue Sheet** you print so you can always tell which is the most recent copy.

Note: If the document that gets printed out looks strange, you may not have all the appropriate font sizes installed as part of your system file. (See Apple's documentation on the **Font D/A Mover**.) In order to print **Best** on your Imagewriter, you will need font sizes installed that are twice the size of the one you wish to print. (For example: to print 12 point in the **Best** mode, you will also need 24 point installed.)

Selection of **Best** or **Faster** for your printout will best duplicate the quality of your on-screen material. Selecting **Draft** as a print option will give unpredictable results.

Printing From the Finder

If you want to print a number of cues, it is best to go to the **Finder**, hold down the **Shift** key, select the icons of all the cues you want to print and then choose **Print** from the **File** menu. When you do this, a special dialog box will be displayed on the screen before the standard Macintosh print options are made available to you:



If you are printing **Cue Sheets** and **Score Paper**, (see page 159) make sure both boxes are clicked "on". To continue, click **OK**, or hit the **Enter** key and you will be presented with two Macintosh page setup dialogs followed by two print option dialog boxes one after the other. Beneath each of them will be a title indicating whether you are setting the print options for **Cue Sheets** or **Score Paper**. This will allow you to have different printing specifications for each form in the same print run, such as printing your **Cue Sheets** vertically and your **Score Pages** horizontally.

Once you have set up both sets of printing options and clicked on **OK** or hit the **Enter** key for each of them, the printing will commence.


Should you be printing out a large amount of material, our advice is to click on **OK** and go eat lunch. The Imagewriter is not known for setting speed records.

Set Cue Sheet Formats

The appearance of the **Cue Sheet** both on screen and in its printed form can be varied in a number of ways other than what sort of **Time Formats** we want to display. Click on the **Operations** menu and choose **Set Formats** again so we can examine some of our other options.

Once the hierarchical menu appears, select **Cue Sheet Formats** and the following dialog will appear:

Set Cue Sheet Formats

<p>MUSIC INFO IN CUE SHEET</p> <p><input checked="" type="radio"/> Display <input type="radio"/> Don't Display</p> <p>CLICK DISPLAY (%Y)</p> <p><input checked="" type="radio"/> Click # <input type="radio"/> Measure/Beat</p> <p>ACC/RIT, CLICK TAP DISPLAY</p> <p><input checked="" type="radio"/> All Tempos <input type="radio"/> Beginning and End Only</p> <p><input checked="" type="checkbox"/> Mystery Feature</p> <p><input type="text" value="TEXT BETWEEN QUOTES"/> </p>	<p>CUE POINT DISPLAY</p> <p><input checked="" type="radio"/> All Cue Points <input type="radio"/> Key Hits Only</p> <p>BEAT DIVISIONS (%optD)</p> <p><input checked="" type="radio"/> 100ths <input type="radio"/> Round Off Mode <input type="radio"/> <input type="text" value="100"/> <input type="radio"/> Notation</p> <p>SPACE BAR CHARACTER</p> <p><input checked="" type="radio"/> ":" <input type="radio"/> "," <input type="radio"/> "/"</p> <p><input type="checkbox"/> Input Error Check <input type="text" value="20"/></p>
--	--

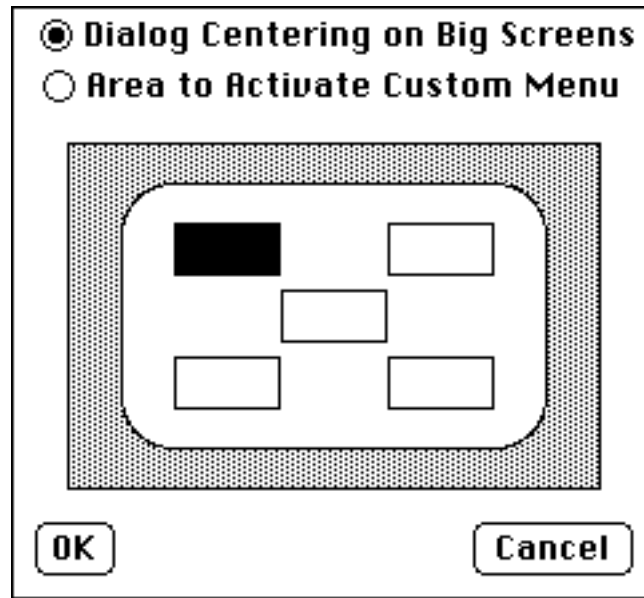
Another way to call this dialog box up without using the menu bar is to hold down the **Command** and **Option** keys while typing the letter **F**. A third way to call up this dialog is to click on the **Cue Sheet** heading labeled **Click #**. If you want to move to the other pages of this dialog, click on the **OK** and **Turn Page** or **Cancel** and **Turn Page** buttons at the bottom of the page depending on whether or not you want to save any changes you have made to this dialog.

Remember, if you want to see any changes you make in this dialog box actually

become part of the way the **Cue Sheet** is displayed, you have to click on **OK** or **OK and Turn Page**.

Screen Setup

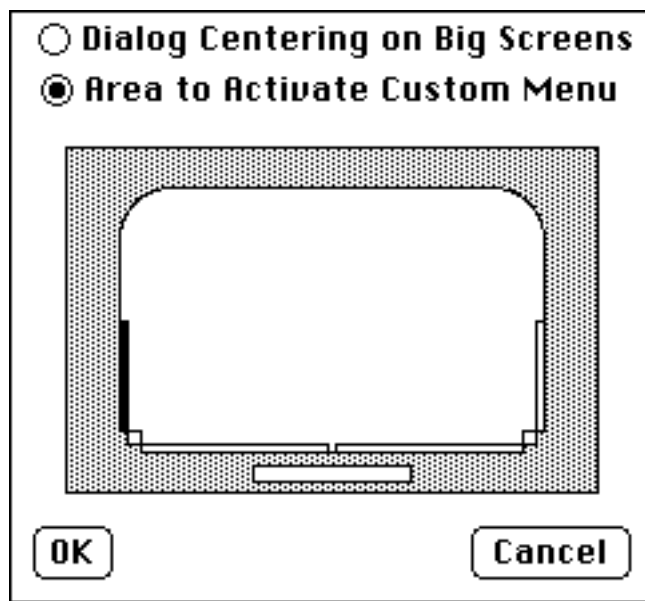
Under **Set Formats** an option has been created to allow large screen owners a measure of choice for dialog box observation. Select **Screen Format** from the sub-menu, and the following graphic dialog box will appear:



The two checkboxes at the top, will allow you to configure **CUE** dialog boxes on you screen in various ways. The first checkbox (above) comes up immediately upon selecting **Screen Setup: Dialog Centering on Big Screens**: Five rectangles are presented to you. These rectangles represent relative positions on your screen that dialog boxes will appear when you click select them from a menu or from a window. Click on an area of the screen with one of these boxes. It will highlight. Now click on **OK** and return to the **Cue Sheet**.

Test your selected screen position by bringing up a box. For instance, type **Command-R**. Your **Running Time** dialog box should appear in the general area of your screen, selected in the **Dialog Centering** box. The larger your screen, the more you can avoid covering your cue description or crucial numbers with a dialog box.

Checking the second box, **Area to Activate Custom Menu**, presents a modified screen graphic with several small rectangles along the bottom and lower sides of the white center-screen image.



A special area for bringing up your **Custom Menu** is created you highlight one of these side or bottom areas. Click **OK** and return to your **Cue Sheet**. Now when your mouse cursor moves over the area of your screen selected in the **Area to Activate Custom Menu** box, your **Custom Menu** will appear.

When you highlight the separate rectangle at the bottom of the shaded area in your picture. The "pop-up" **Custom Menu** feature will be turned off. If in fact, you decide to made no changes to your default **Screen Setup**, just click on **Cancel**.

Selections made in the **Screen Setup** dialog boxes will be included when you **Save Defaults**.

Music Info in Cue Sheet

Music Info in Cue Sheet is here as an aid to music editor/composer relations. By clicking the **Don't Display** button, you can turn off the visual display of **Warning Clicks**, **Tempo**, **Meter** and most important, **Bars/Beats**. This lets a cue sheet reach a composer without giving the impression that the editor is making musical suggestions. (The musical data is not lost. Clicking on the button next to **Display** will restore all this information to the screen).

Cue Point Display

A **Cue Sheet** as prepared by a music editor usually has many more cue points listed on it than the composer wishes to catch with his music. By going to **Cue Point Display** and clicking on **Key Hit's Only**, the **Cue Sheet** will now show or print out only the cue points which you have designated as **Key Hit's**. By removing all the non-essential cue points, a much more focused examination of the cue can be achieved. (Once again, this information is not lost. It can be retrieved by clicking on the button labeled: **All Cue Points**.)

Click Display

Click Display switches the **Cue Sheet** between displaying **Clicks** either as a total number of **Clicks** or as **Measures** and **Beats**. If you do not want to use the **Formats** dialog box you can toggle between **Click #** and **Measure/Beat** by typing **Command-Y**. **Measures** and **Beats** will become more useful later on, so let's stay with **Clicks** for the moment.

Beat Divisions

The wide array of choices for how you display the actual **Beat Divisions** in the **Cue Sheet** can be accessed in four different ways. In addition to clicking on the button next to the **Beat Division** of your choice in the **Set Cue Sheet** dialog box, you can choose **Change Beat Div. Display** in the **Misc.** menu, or for the greatest ease and speed, hold down the **Command** and **Option** keys and type the letter **D**. Each time you type **D**, you will toggle between one of the four **Beat Division** options without ever having to leave the **Cue Sheet**.

Hundredths and Other Fractions

CUE displays its fractional beats in decimal hundredths of seconds as a default setting, but another options is to display the fraction of your choice. By typing a number into the highlighted text entry box under **Beat Divisions**, you can display your beat information in any fraction up to a 999th.

One way this could be useful to you is if your sequencer supports step entry. If your sequencer divides a beat into 480ths for example, you can see your timing points displayed as exact beats and sequencer ticks that exactly correlate to the

sequencer, making it possible to enter notes at exact timings even if they don't fall on musical subdivisions.

Another use of this feature is to break the beat into musical divisions. For example, by entering a **2** into the text box, the beats will now be rounded off to the nearest eighth note (an eighth is half of a beat).

Notice that when you enter a number in this text box, the button next to it is automatically toggled on. If you want to go back to decimal hundredths, click on the button marked **100ths**.

The Great Beat Round-Off

Another way to deal with hitting certain cue points is to round them off to the closest beat and then conduct the hell out of the orchestra so they speed up and slow down to compensate for the inherent "errors" in the music you have written.

To activate this feature go to the **Set Cue Sheet Formats** page (**Command Option-F**). By clicking on **Round Off Mode** under the title **Beat Divisions**, and then on **OK**, you will convert the beat display to a mode where it not only rounds off the beats but also displays in parenthesis to the right of each beat how far off you are in plus or minus fractions of a second.

Zarkov/1m2- •Version 2			
26.00		E.L. (End of Line)	67 (-.13)
26.73	CUT	As the dawn begins to break, a cloud of dust thrown up by whatever is coming over the horizon, kicks up into the sky catching the first rays of sunlight as its height increases	69 (-.19)
30.53		Ergon's Nightmare machines are close enough now so that the grinding roar of their engines can be perceived across the expanse of twisted desert.	78 (.00)
35.97	✓ CUT	Morg peels back some canvas in the shape of a boulder to reveal a bizarre communications device	92 (-.00)
40.10	CUT	Morg's snaggle-toothed mouth is seen in CU as he gabbles into the communicator	102 (.11)
45.23		DIAL: "THEY HAVE FOUND THE EGG. WE'RE DOOMED!"	115 (.10)
49.00		End Dialogue	125 (-.00)
51.27	✓	A CRACKING-TEARING sound is heard.	131 (-.19)

Beat Display With Notation

There is a fourth choice for ways to display the beat division that each timing point occurs at. Again under **Beat Divisions** in this **Set Cue Sheet Formats** page, you will see an entry entitled **Notation**. Clicking on **Notation** will cause a note value to be displayed after the click number in your **Cue Sheet**. This is especially handy for the many instances where accuracy in hitting a cue is really a function of the nearest musical beat, or part of a beat that is practical to write in traditional notation. **Note:** In Notation mode, the cue point indicated will come at the end of the note indicated to the right of the beat number.

Accelerando/Ritard, Click Tap Display

We will go into using the **Accelerando/Ritard** feature in much greater detail on page 132 and information on **Click Tap** can be found on page 215. Quite simply **Accelerando/Ritard** makes a number of **Tempo** decisions that will speed up or slow down the click track between points which you designate and **Click Tap** allows you to tap out an entire click track by hand. If you want to see every single **Tempo** decision that **CUE** has made in either of these two cases, then click on the button marked **All Tempos**.

If you only want to see the opening and closing **Tempos** and whether an **Accelerando** or **Ritard** is taking place, click on the button next to **Beginning and End Only**. Since **CUE** will make a great many Tempo shifts to accomplish a given **Accelerando** or **Ritard** and will follow your every human nuance when you tap out a click, you may want to examine them only to satisfy your curiosity since they could take up a great deal of space on the screen or the printed page.

Space Bar Character

SPACE BAR CHARACTER



When entering times into the **Input** window or at any other point in **CUE** where you are prompted to enter a time, you can use the space bar as a short cut to enter the proper **Time Format** consistent with your current needs.

Input Error Checking

Every once in a while you will type a number into the **Cue Sheet** that is way off. What will usually happen is that you will type an hour in when you meant to type a minute, or a minute when you meant to type a second. Often this won't be noticed until later, particularly when you are flying along typing lots of cue points as quickly as possible.

Entering a time in the text box that is between 0 and 99 seconds activates this feature without a click into the radio button. From this point on until you click in the radio button to turn this feature off, **CUE** will compare each time entered into the **Input** window to the previous time entered, and if it is

less than the previous time or if the difference between the two is more than the number of seconds you specified in **Input Error Checking**, the Mac will beep and a dialog asking **Really?** will appear. If you click on **Yes**, this cue point will be entered into the **Cue Sheet**. If you click on **No**, then you are returned to the **Input** window where the **Time** entry will be highlighted and you can correct your mistake.

The assumption here is that if you are entering timing points in chronological order, each timing point will be later than the one before and that most of them will be in fairly close proximity to each other.

TheMystery Feature

This is the option that allows you to delete and edit cue points that would otherwise just sit there and snicker at you. For more detail on this, see page 62.

Text Between Quotes

The text between quotes is a pop-up menu. It enables you to choose between the text styles (bold, italics, etc.) of text inserted between quotes in the cue description of the Input window. When in the input window, whenever you type a quotation mark the text style will automatically switch to the choice you made with the Text Between Quotes pop-up menu. When you type another quote, the text will toggle back to the default style setting

Saving Your Default Settings

As you use the program more, it is quite likely that you will develop certain tendencies concerning how you like **CUE** to be set up. By clicking on the **File** menu and selecting **Save Defaults** you can preserve the settings on the three "pages" of the **Set Formats** dialog box as well as those of the **Options**, **Streamer Options**, and **MIDI Setup** dialogs located in the **Reel World** menu. Other items included in the **Save Defaults** package are the amount of **Pre-Roll** specified in the **Reel World** menu's **Generate SMPTE** dialog box, the position of windows on the screen, **Screen Setup**, **MIDI Channel Names**, **Custom Menu** settings, and whether or not you have selected **Auto Backup** from the **File** menu.

Using **Save Defaults** will allow **CUE** to be set up on screen just the way you like it every time you open the program. **Save Defaults** will cause **CUE** to save and duplicate any customized window placement you create, as well as the size of the **Cue Sheet** and **Click** windows. This comes in handy for anyone working with a large screen or a Mac II, where you have the space to spread your windows out for greater visibility over the broad expanse of the bigger screen.

If you have made any changes to your default settings that you would like to preserve, you can do so by selecting **Save Defaults** again. Should you have made any changes to your default settings and not saved them, **CUE** will remind you of this when you **Quit** the program and give you the option of saving them (or not saving them) at that time.

Should there be some point that you would like to return **CUE** to its original settings without going through a lengthy process of going from dialog box to dialog box, you can **Quit** the program and look in the **Finder** for a file marked **CUE 3.0 Defaults**. By throwing this in the **Trash**, you will permanently dispose of the customizing you have done.

Fine Tuning Your Cue Sheet

We have now reached a crossroads in this manual. For all intents and purposes, you are at a point where you now know enough about the **Cue Sheet** and the **Input** window so that you can go ahead with the vital task of determining the appropriate **Tempo** for your cue.

On the other hand, there are still a number of useful features that the **CUE Cue Sheet** has which we have not yet described. It's your choice. Our suggestion is that you skim over the remaining features very briefly, but let your main concentration flow into feeling comfortable with your own cues.

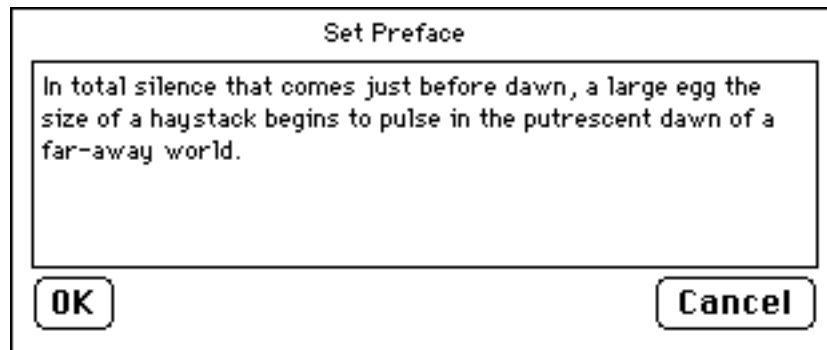
Your **Cue Sheet** is written. The bulk of your typing is behind you. Now this information is ready to go to work for you. **Tempo Search** begins on page 123.

4 Additional Cue Sheet Features

The Preface

There will be times where you will find it useful to have some general information in the **Cue Sheet** which will appear before the first cue point. This could be anything from a description of the previous cue, to information on synthesizer sync tones or a list of undergarments worn in the average Victorian household.

By going up to the **Operations** menu and selecting **Set Info**, a hierarchic menu will appear allowing you to select **Set Preface**. After you do so, a dialog box will appear that permit's you to enter up to 6 lines of text.



If you are satisfied with what you have written then click on the button marked **OK** (or hit the **Enter** key). The dialog box will disappear and you will see that the **Preface** you wrote now appears before the first cue point.

REL. TIME:	-----17 WARNING CLICKS BEGIN AT s1:00:01:15-----	CLICK #:
	As we move away from the low brick warehouse hidden behind the ghostlike frame buildings of an urban past, the camera pulls slowly back into dusk. . .	
	METER: 4 4	
0.00	The night sky fades in	1.00
2.50 ✓	A shooting star arcs across the heavens	6.00
5.37	Camera pans down to follow the star as it descends behind some hills	11.73
9.63 ✓	CUT FS view of a glowing crater left by the impact of the star.	20.26
11.47	Start to pan in toward the center of crater	23.93
15.57	CUT MS of a large shining egg that is sitting in the center of the	32.13

If you have no cue points entered, the **Preface** will not appear even though you have typed it in and clicked on **OK**. This is correct **CUE** behavior. As soon as the first cue point is entered, your **Preface** will be there.

Note: Once a preface has been entered, you can edit it by clicking on it with the mouse. This will bring up the **Set Preface** dialog box without you having to access the **Operations** menu.

Entering the Preface Into Your Spotting Notes

There are times when an editor has to start taking timings even before the spotting sessions take place. When this happens there are some editors who like to be able to transfer what they have written in their **Cue Sheet Preface** into their **Spotting Notes**. To accomplish this with **CUE**, go to the **Edit** menu and select **Preface to Spotting Notes**. If you then move to the **Operations** menu and select **Set Spotting Notes**, you will see the text of your **Preface** appearing in the text entry box. Provided you have **Saved** your file with this new information, it will appear in the **Spotting Notes** when you print them out.

To find out more detail about **Spotting Notes**, see page 100.

The Reverse Slash

Once thought of as the most feared fencing technique in Heidelberg, the reverse slash (\) has taken on a whole new meaning in **CUE**. There will be times when you may want to show some timing points that directly follow your cue without having **CUE** take them into account as part of the cue. By making the reverse slash (\) the first character you type in the **Input** window under **Description** and clicking on **OK** (or hitting the **Enter** key), you will be telling **CUE** to make the **Total Time** of the cue equal to the time of that cue point. Try adding a reverse slash to one of the **Descriptions** of our sample cue and you will see the following:

REL. TIME:	-----17 WARNING CLICKS BEGIN AT s1:00:01:15-----	CLICK #:
	As we move away from the low brick warehouse hidden behind the ghostlike frame buildings of an urban past, the camera pulls slowly back into dusk. . .	
	METER: 4 4	
0.00	The night sky fades in	1.00
2.50 ✓	A shooting star arcs across the heavens	6.00
5.37	Camera pans down to follow the star as it descends behind some hills	11.73
<hr/>		
REFERENCE:		
9.63 ✓	CUT FS view of a glowing crater left by the impact of the star.	20.26
11.47	Start to pan in toward the center of crater	23.93
15.57	CUT MS of a large shining egg that is sitting in the center of the low crater. Its sheer surface reflects the glowing embers on the ground around it.	32.13

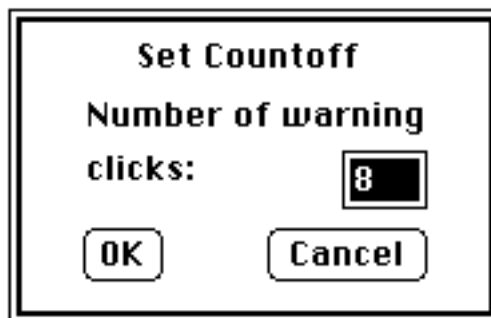
A line now appears directly after that cue point with the word **Reference:** just below it. Also note that the **Total Time** of the cue is listed as the time of the cue point with the reverse slash.

Set Count Off

You have probably noticed by now that below the title on the **Cue Sheet** is a line which has generally been reading: **8 WARNING CLICKS BEGIN AT . . .** followed by a time. Although this line is most pertinent to **CUE**'s ability to

play the click track of a given cue, we will go over this feature now because we are unraveling all the mysteries of the **Cue Sheet** in this section of the manual.

Set Countoff allows you to program a variable amount of warning clicks before **CUE** begins to play the cue with all it's **Tempo** and **Meter** changes. The amount of clicks is adjusted by clicking on the **Operations** menu and selecting **Set Count Off**.



If you wish to change the number of **Warning Clicks** from the default setting of **8**, type in another number and click on the button marked **OK** (or hit the **Enter** key). You can program up to **29 Warning Clicks**. When you enter "**0**" **Warning Clicks**, the display will not appear in the **Cue Sheet**. As with our other dialog boxes, clicking on **Cancel** removes the dialog box and leaves everything the way it was.

The number of **Warning Clicks** is displayed on the **Cue Sheet** with it's own start time for a very important reason: Often, because a piece of music starts softly or begins on an off-beat, it becomes a judgement call for the editor as to exactly where the composer intended the cue to begin. A deviation of even a few frames may cause the music to feel early or late, particularly if it is catching a number of events. If you place the **Warning Clicks** on to the mix or transfer of your music, an editor can cut the cue into the film precisely because he knows exactly where the warning clicks begin.

REL. TIME: -----17 WARNING CLICKS BEGIN AT s1 :00 :01 :15----- CLICK #:

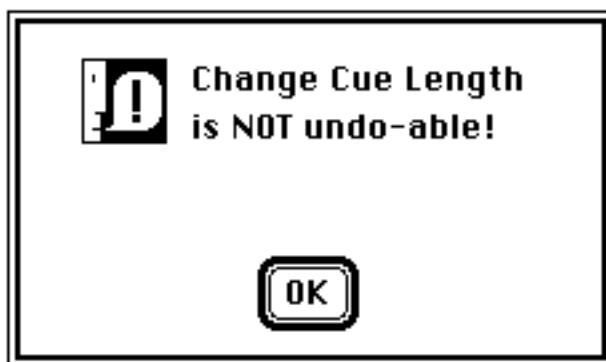
Since the **Absolute Time Format** will determine how the start time of your **Warning Clicks** is displayed, **CUE** can provide an editor with either feet/frame or SMPTE information depending on which medium the editing is being done in. This, coupled with the fact that your first **Warning Click's** time is calculated by computer, greatly eases the physical process of combining music with picture.

Note: You can change the number of **Warning Clicks** without using the **Operations** menu. The appropriate dialog box will appear if you click on the **Warning Clicks** line where it is displayed on the **Cue Sheet**.

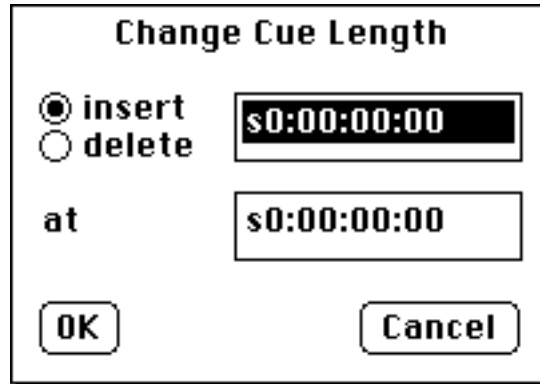
Change Cue Length

As long as we're dealing with making the editor's task easier, here is another feature that removes a minor nightmare from the job. Imagine this reel-life drama: All the timings for a scene have been taken down and translated from feet/frames into minutes:seconds. The phone rings. It's the director. He has just decided to add three frames into the middle of this scene. "That's not a problem, is it?" he asks solicitously. Now you get to recalculate every single timing point that happens after the three frame addition. You smile through gritted teeth and begin. But wait, in the distance, the sound of a bugle echoing through the hills: it's **CUE** to the rescue.

Before anything else happens, make sure that one of your timing columns is set for **Absolute Time** in the same time format that the director is working with and that the **Input** window is also set for **Absolute Time** so you will be ready to make modifications to the proper time format. Once this is done, click on the **Operations** menu and select **Change Cue Length** (or type **Command-L**), and you will be presented with the following dialog box:



This is a warning that you won't be able to **Un-do** this procedure by typing **Command Z** or by selecting **Undo** from the **Edit** menu. If you wish to proceed, click on **OK**, or hit the **Enter** key.



The first choice to make is whether you are inserting or deleting time and this is done by clicking on the appropriate button. To the right of these buttons is the box for entering the amount of time by which the cue is being changed. Any valid time format including measures and beats is acceptable.

Next, tab or position the cursor into the other entry box, which will then enable you to enter where the time change is to take place. If you insert this time change at the same time as an existing cue point, it will move that cue point (and everything after it) by whatever the amount you have entered into the first box. To keep that timing point intact, just add the time change at a point which falls before the cue points you want to move but after the ones that you wish to remain the same.

Adding time is a straightforward proposition. Lets say that we have to add 10 seconds and 6 frames to the sample cue which was entered back under **Lets Enter Some Stuff** on page 49 at 19 seconds and 19 frames in. Type **s10:06** into the first box and **s19:19** into the second box. Click on the **OK** button and you will see that 12 seconds and 15 frames have been added to all the cue points after 1 minute, 32 seconds and 2 frames.

Deleting time has an extra rule connected with it: In order to prevent you from removing a cue point by mistake, **CUE** will not allow you to enter a time deletion which would eradicate one of your entries. Try deleting 16 seconds and 4 frames into the cue. The Macintosh will beep at you and send you back to the time entry box to try again.

If the previous cue point is so close that there is no way you can enter your deletion without overlapping the next cue point, you will actually be removing that cue point from the film. To do this, go to your **Cue Sheet** and remove that unwanted cue point thus permitting the deletion to be entered.(See **Deleting a Cue Point** and **Deleting a Range of Cue Points** starting on page 59)

In the case of our example, there is more than a foot between the two cue points that bracket our deletion, so enter a foot count in the "at" box that is more than one foot before the cue point which is giving us a problem. If you do this, the cue point will be preserved and **CUE** will accept your deletion.

Although we have not yet taken up **Tempo Search**, this note is for later when you are using **CUE** on a project: Should you have already calculated your tempo, be sure to check and see where the newly recalculated cue points are falling. Unless our director changed the length of the film by an even beat, you will probably have to do a new tempo search.

Move Cue Points-An Insanity Prevention Tool

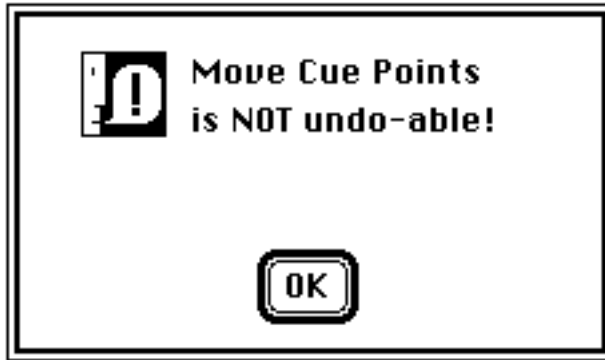
Using **Move Cue Points** in the **Operations** menu provides an alternate way to change the length of the cue you are working on. It was developed to cope with the following unpleasant scenario that befell a music editor friend of ours:

Imagine this: You have taken down all the timings from a film and created **Cue Sheets**. All of a sudden, wholesale changes to the picture begin to stream through. To make matters worse, absolutely no information is provided that lets you know where the additions and subtractions to the footage occur. Your only way of realigning your timing notes is to go through each reel examining cue point after cue point to see where changes have taken place.

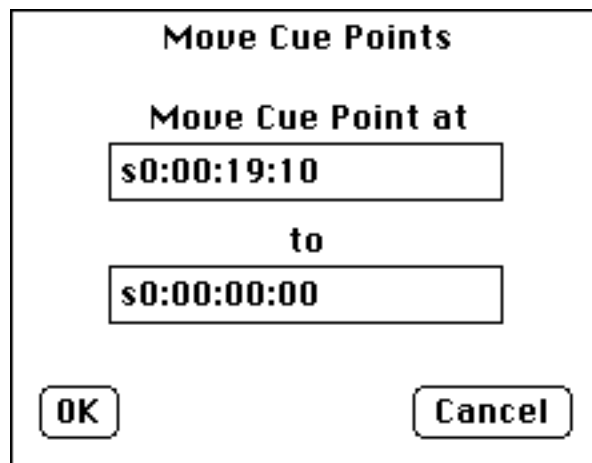
When you find a discrepancy, you have to calculate the difference between the new timing and the one on your **Cue Sheet** and then modify each subsequent cue point until you get to the place where the timing differential changes again. Calculating, recalculating, adding and subtracting the differential within each reel, reel after reel . . . the worst kind of work. But then, you are being paid by the hour aren't you?

CUE provides the following help:

When you come to a cue point whose timing has moved, click on the **Operations** menu and select **Move Cue Points**. You will be presented with the following:



If this reminder strikes fear in your heart, click on **OK** and when the dialog box appears, click on **Cancel**. If not, then you can proceed. (Remember that selecting **Revert** from the **File** menu will return your **Cue Sheet** to the last version that you saved.)



Using **Move Cue Points** is very straightforward. The first text entry box marked: **Move Cue Point at**, is where you enter the time of a cue point which no longer conforms to the recut picture. The other box labeled, **to** is where you key in the new timing that this cue point appears at. Once again we want to remind you (not that you have forgotten) to make sure that at least one of your timing columns, as well as your **Input** window is set for **Absolute Time**, and that you are entering your changes in the same format as the director's. Don't forget as well, that your hour (if in SMPTE) has already been set in the **Running Time box**, and so should not be added again

When you click on **OK**, two actions take place. First, your cue point now appears in the **Cue Sheet** with the updated time, and second, **CUE** calculates the difference between the old and new timing point and either adds or subtracts that time from all subsequent cue points in your cue.

A short Cut

From the **Cue Sheet**, clicking and holding the mouse button down on the cue point whose time you wish to change will bring up a pop-up menu. Release your button over the **Move Cue Points** entry and **CUE** will automatically put the time of this cue point into the first entry area of the **Move Cue Points** box.

It's still a laborious task, but at least you won't need a straight jacket with built in solar calculator.

Multiple Versions of Your Cue

There may be times when more than one way to score a particular part of a film may seem attractive. **CUE** gives you three versions of any given **Cue Sheet** so you can work on several musical approaches at the same time and compare them easily by clicking from version to version.

The **Version Number** is displayed in the **Title Bar** of the **Cue Sheet Window**.

You access the **Version Number** by clicking on the **Version** menu and selecting **Version 1**, **2** or **3**. The number of whichever version you choose will be displayed in the title bar of your **Cue Sheet** along with your file name.

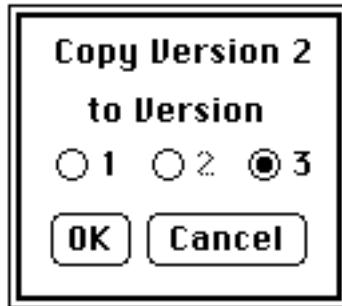
An alternate way to change **Versions** is to hold down the **Command** key and type either "+" (or "=") to move forward through the **Versions**, or **Command** "-" to move in the other direction. If you are not sure what **Version** you have moved to, you can click on the menu to check your progress.

All the cue point information will be exactly the same on all three versions. Any data you type into the **Input** window of any of the versions will appear identically on the other two.

What can be different from version to version are the **Tempos**, **Meter Changes**, **Offsets** and **Warning Clicks**.

Copying one Version into Another

If you want to try another approach to the cue that has only one or two minor changes from the one you are working on, select **Copy Version** from the **Version** menu and you will be presented with this dialog box:



The dialog box assumes that the version of the **Cue Sheet** you are currently on is the one which you wish to copy from. Changing to a different version of the **Cue Sheet** will allow you alter it's wording. Clicking on the version number you wish to copy into will cause an exact duplicate of the original to be created when you click on **OK**. Now you can make your modifications without having to re-enter all the information that is identical in both versions.

Selecting the Final Version

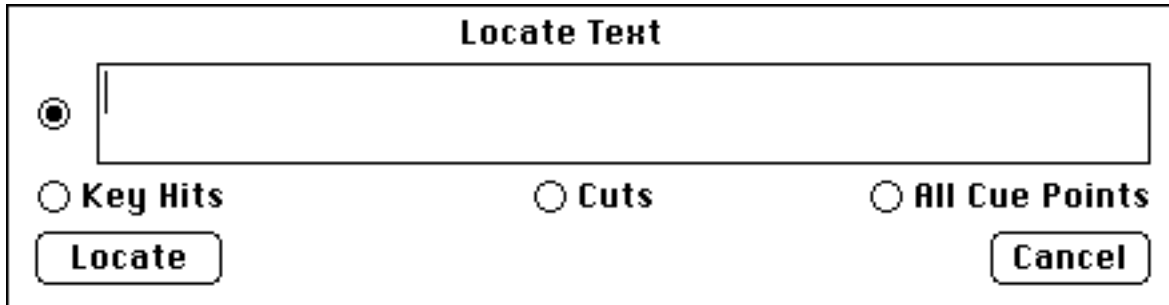
Since the **Tempos** and **Meter Changes** you set in your **Cue Sheet** affect the **Click Track** which **CUE** outputs, there is a safety feature to prevent you from playing the wrong **Version** at a session. When you select a **Version** from the menu, you will see that one of the **Versions** appears in **outline**. This is the final **Version**.

To set your final **Version**, select the one you want and then click on the **Version** menu again and select: **Set Final**. If you click on the menu one more time, you will see that the **Version** you just chose now appears in **outline**. To show you which is the final **Version** without your having to click on the menu, a dot (•) will appear next to the **Version** number shown in the title bar of the **Cue Sheet** window.

==== Czarkov/Sample- •Version 1 ====

Locate and Get Next

Locate, which is found at the bottom of the **Edit** menu, provides an easy way to zero in on specific aspects of your **Cue Sheet**. When you select it you will be presented with this dialog box:



The dialog box is titled "Locate Text". It features a text input field at the top. Below the input field are three radio buttons: "Key Hits" (selected), "Cuts", and "All Cue Points". At the bottom left is a "Locate" button, and at the bottom right is a "Cancel" button.

You can use this **Locate** feature to find specific words or phrases much as you do in most word processors. Enter the word(s) you wish to find and click on **OK** (or hit the **Enter** key). The dialog box will disappear and the first cue point containing the word(s) will appear in the **Input Window**. To make locating and changing the word(s) easy, they will be selected.

Get Next or **Command-G** will locate each successive occurrence. When there are no further occurrences of the word(s) then the following will appear:



What makes this particular **Locate** dialog box unusual is that it can also be used to find **Key Hit's**, **Cuts**, or **All Cue Points**. Clicking on the button next to whichever one of these you would like to locate will cause **CUE** to place **Key Hit's**, **Cuts**, or **All Cue Points** in the **Input Window** instead of a specific word or phrase. You use **Command-G** to locate the next occurrence just as you would with a work or phrase.

Typing **Command-G** after selection of **All Cue Points** is a far quicker way to bring each cue point into the **Input Window** in succession than having to go back to the **Cue Sheet** for each desired **Edit**.

Scale Time-The Incredible Shrinking Cue Sheet

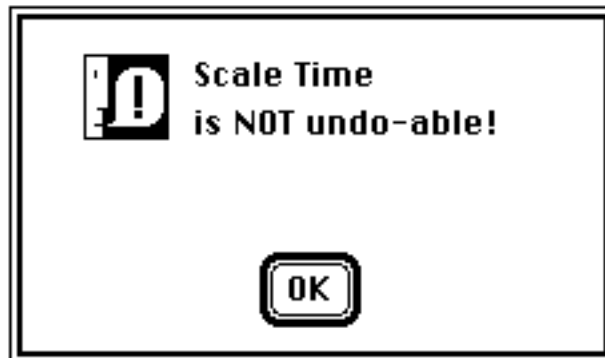
This is one of those features that you may not have to use too often, but if you do, you will be very glad of its existence. It is designed to deal with situations where you find that the original timings are proportionately different from the ones you are now working with. There are two basic scenarios within which this may happen:

One scenario is when you are trying to match up your drop frame SMPTE video tape with a **Cue Sheet** whose timings have been taken from a movieola without use of the **film frames at 23.98 fps** format (see page 32). This is a frustrating and not uncommon occurrence because when a video copy has been made of a film master ten minutes long, the video copy will last 10 minutes and 18/30th seconds (18 video frames) to cover the same distance that a movieola or kem does in 10 minutes even.

If you are converting to non-drop frame (B&W) SMPTE, **Cue Sheet** timing points will match the video perfectly. But if you convert the standard feet/frame timings to drop frame SMPTE, you will encounter a small problem. **CUE** is very precise. Ask it to convert 10 minutes of feet/frames to 10 minutes of 30 fps SMPTE (whether drop or non drop) and it will do so. Thus your **Cue Sheet** will match the movieola, but not the slower moving video. Since drop frame is "stop watch accurate", your video tape will be exactly 18/30th seconds (18 video frames) longer when you compare your video's SMPTE window to your **Cue Sheet's** ten minute span. How do you deal with such a small but maddening discrepancy?

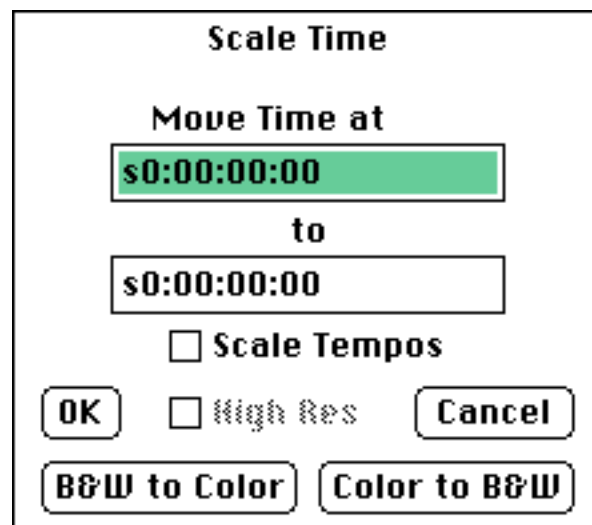
One suggestion is to try and bite off the numeric keypad on your Macintosh keyboard. If however you find this action to be counter-productive, you can use **Scale Time** to save the day.

Click on the **Operations** menu, select **Scale** and then **Scale Time** from the hierarchic menu that appears. You will first be presented with this dialog:



This means that you cannot type **Command-Z**, and have the **Scale Time** return to the original cue points. If you have been saving your work right along however, you **CAN** revert to your previously saved version.

Now click on **OK** and you will get the actual dialog box:



For the moment we will ignore the text entry boxes and focus on the bottom of the dialog box where you can click on a button that says **B&W to Color** and **Color to B&W**. Here **B&W** is shorthand for non-drop SMPTE (30 FPS) and **Color** stands for drop frame SMPTE (29.97 fps). By clicking on **B&W to Color** and then clicking on **OK** (or hitting the **Enter** key), you will automatically scale your **Cue Sheet** to reflect the slightly slower speed at which your video tape is running. After you return to the **Cue Sheet**, the percentage

your cue has been scaled will be shown in the third line from the top of the **Cue Sheet** and both your **Cue Sheet** and your video timing will agree.

If you want to see how this works, set the **Cue Sheet** up so that your **Absolute** column shows drop frame SMPTE, enter a cue point of exactly ten minutes and then follow the steps outlined above. When you have done so, you will see that this timing point is now ten minutes and 18 frames and that your **Cue Sheet** has been scaled by 100.1 percent.

If you have gone ahead and worked out your **Tempos** before you noticed the **Scaling** discrepancy, you can also click on **Scale Tempos** and **High Res** (High Resolution) so that **CUE** will accurately scale your **Tempos** along with your timings. Now you won't have to work out a whole new set of **Tempos**.

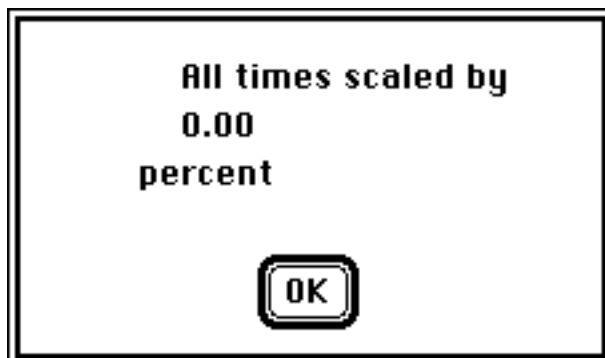
The other basic scenario where **Scale Time** saves you time, is through an occasional slip up in the transfer process, where SMPTE numbers on your video may not match the clock on the wall, yet the SMPTE is proportionally correct. It is under circumstances like this where the two entry boxes in the center of **Scale Time** become important.

Lets use a radical example: You have a piece of film that should take 30 seconds but because it has been transferred too slowly, the SMPTE numbers show that it takes 37.5 seconds. You have blithely gone ahead and created a **Cue Sheet** based on the SMPTE numbers before the mistake was spotted. With the aid of **CUE**, you don't have to recalculate and re-enter all your cue points. You can instead re-scale the whole **Cue Sheet** to compensate for the proportional difference between reality and the video you used when you took your original timings.

As you did in the previous example, click on the **Operations** menu and select **Scale Time**. **CUE** can calculate the ratio between a specific cue point in your **Cue Sheet** and the new (correct) time your cue point should appear at. Armed with this information **CUE** then proportionally scales all the rest of the cue points to fit this new relationship. All you have to do is enter two numbers. Into the box marked **Move Time at**, enter the time of your current (incorrect) cue point.

Placed the new time for this cue point into the box marked **to**. Remember NOT to add the SMPTE hour originally entered in the **Running Time** box. **CUE** has already done this for you.

Click on the box marked **OK** or hit the **Enter** key if you want the **Scale Time** process to take place. A dialog box will appear indicating the percentage of scaling needed to change your selected cue point to the new time:



Click **OK** if you wish to proceed, or anywhere else inside the box if you wish to bail out of the process and return to the cue sheet. If you clicked **OK**, your cue sheet will be modified to reflect the changes. Remember that **Scale Time** is not undo-able, but you can **Revert** your cue to its prior form if that previous version was the last one that you **Saved**.

The percentage that your cue has been shifted now appears on the **Cue Sheet** in the area just above the **Warning Clicks**.

```
:00:00) in Reel/Act 1  
(ALL TIMINGS WERE SCALED BY 100.80 PERCENT)  
  
----17 WARNING CLICKS BEGIN AT s1:00:01:15----
```

As we slink away from the low brick warehouse hidden behind the ghostlike frame buildings of an urban past, the camera pulls slowly back into dusk. . .

Note that if you use **Scale Time** in the **Absolute Time** mode, the **Running Time** you have set will be subtracted from both the **at** and **to** entry boxes before calculating the scaling percentage.

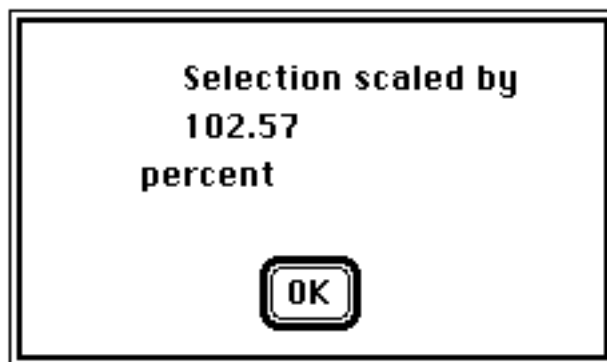
Scaling a Portion of the Cue Sheet

If you ever need to proportionately scale just a part of your **Cue Sheet**, here's how you do it:

Scroll the **Cue Sheet** to the first cue point that is to be included in the **Scaling**. Hold down the **Shift** key and click on this cue point. After you click you will see that this cue point is now highlighted.

Next, scroll to the cue point that is to be the last point in the section to be scaled. Hold down the **Shift** key and click on this cue point. As you do so, that cue point and all the others between it and the first cue point you clicked on will become highlighted. Now when you do the **Scale Time** procedures outlined above, only this highlighted portion of your **Cue Sheet** will be affected by the scaling process.

Since the amount of the **Scale Time** refers to only a portion of the **Cue Sheet**, the percentage will not appear at the top of the **Cue Sheet** but after you have clicked on **OK**, or hit the **Enter** key to begin the scaling, it will instead be displayed in a dialog box that looks like this:

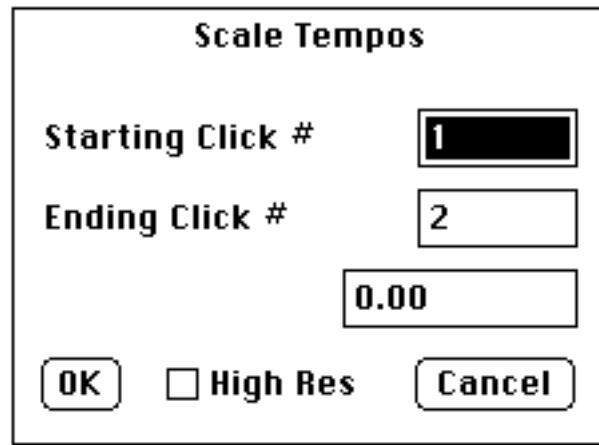


Should it be important for you to know what percentage of scaling has just taken place, this is the point to note it down somewhere.

Scaling Tempos

If you have been reading about **Scale Time** thinking how nice it would be to **Scale Tempos** without **Scaling Time**, you can.

By selecting **Scale Tempos** from the hierarchic menu that appears when you select **Scale** in the **Operations** menu, you will call up the following dialog box:



The dialog box is titled "Scale Tempos" and contains the following elements:

- Starting Click #**: A text input field containing the number "1".
- Ending Click #**: A text input field containing the number "2".
- Ending Time**: A text input field containing "0.00".
- Buttons**: Three buttons at the bottom: "OK", " High Res", and "Cancel".

In order to **Scale Tempos** you enter the **Starting Click**, the **Ending Click**, and what **Ending Time** you want that **Ending Click** to fall on. For most precise results, also click on **High Res** (high resolution) before you click on **OK** (or hit the **Enter** key). After completing this process you should see your changes entered into the **Cue Sheet**:

	METER: 4	
10.00	The night sky fades in	1.00
12.50	(THE TEMPO CHANGES TO 18-0 ON THIS CLICK)	6.00
12.50 ✓	A shooting star arcs across the heavens	6.00
15.38	Camera pans down to follow the star as it descends behind some hills	9.83

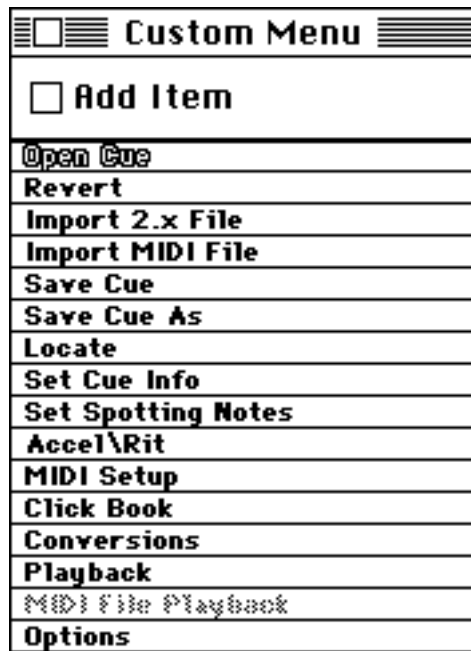
Since you can enter both a starting and an ending beat, you could choose to scale only one part of your cue, or several different sections of your cue, each one scaled to it's own particular proportion. As with **Scale Time**, cue points can be selected by holding down the **shift** key and clicking on the beginning and ending cue points you wish to include in a range. With this range highlighted, selecting the **Scale Tempos** box will send that range to their respective **Starting** and **Ending** click boxes.

In case you need a bit of visual help finding the right bar-beat or click numbers to enter into the **Scale Tempos** box while that box is on the screen, we have added the following text-key aids:

- Y** (the letter): toggles Cue Sheet between click or bar-beat display.
- up/down arrows**: will scroll the Cue Sheet behind the dialog box so that you can see various points in a cue which extends beyond the window.

Creating a Custom Menu

If you start to feel a bit overwhelmed with all of the menu bar searching and mouse clicking needed to repeat certain necessary tasks, it's time to use the **Custom Menu** which pops up the first time you open your **Cue Sheet**. You can also retrieve the **Custom Menu** by clicking on any exposed part of it on your screen; moving up to **Windows** in the menu bar; clicking and sliding down to the **Custom Menu**; or simply typing **Command Opt-M**.



When your **Custom Menu** is open, you can click on any of the titles in it's window to open or perform that function. If you click on the **Save Cue** title for instance, the **Save Cue** dialog box will immediately come up and prompt you for it's normal **Save** information. When the **Save Cue**

operation has been completed, the title will appear in outline until another title is selected from the **Custom Menu**.

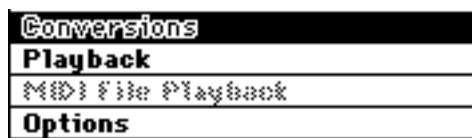
Of course, every production has it's own special needs. You may well find that a particular item (or series of them), not found on the default **Custom Menu** list is constantly needed for your work. That's just why we have constructed the **Custom Menu**. You can add any **CUE** function found in the **Menu** bar of **CUE** to the **Custom Menu**, by replacing one or more of the default entries with the needed function.

To replace a **Custom Menu** entry, click on the **Add Item** check box above the current list. Select a title you wish to replace from the list below, and click on it. The selected item should be highlighted, and will flash to show that it is active. Now move up to your **Menu** bar, and select the function you wish to place into your **Custom Menu** list. When you click on the desired item, it will automatically appear in the highlighted, flashing box, chosen for it.

Follow this example. Click on a visible edge of the **Custom Menu**, Select it from the **Windows** column above, or type **Command Opt-M**. When it has come to the top of your screen, click on the **Add Item** Check box. If you have not previously selected other items in the **Custom Menu**, the top entry of the list will be highlighted:



Lets keep this entry, and move to another for the sake of example. Click on **Conversions** toward the bottom of the list:



With this box highlighted and flashing, move up to the **Reel World** menu, and select **Generate SMPTE**. This entry should now replace **Conversions** in the **Custom Menu** box:



If you wish to replace another other entry, click on it and follow the same process. Continue your replacements until the **Custom Menu** reflects your best working format. When you are done, click on the **Add Item** check box to deactivate the entry procedure. Click on your newly added items to see that they function properly.

Cue Sheet Surgery

Breaking Cues

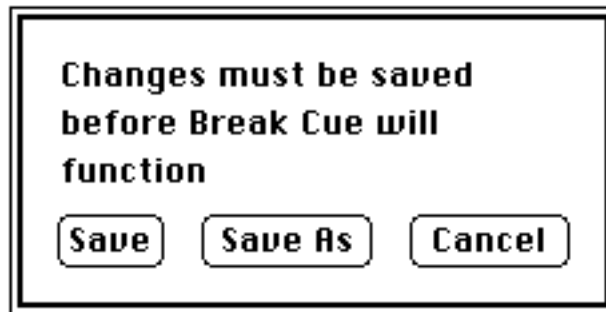
When you are receiving instructions coming from someone else, make sure to find out whether they are in **Absolute** or **Relative** time, so that you will break the cue in the correct place.

There are two steps to **Breaking a Cue**.

The first step is to click in your **Cue Sheet** window on the cue point that will end the first part of your cue. When it appears in the **Input** window, type a reverse slash (\) as the first character in the **Description** and click on **OK** (or use the **Enter** key). This designates everything after the edited cue point as **reference** material. It is this part of the cue that will become the second cue.

The second step is to click on the **File** menu and select **Break Cue**.

If you have previously **Saved** the reverse slash and any other changes you may have made, then **CUE** will go ahead and **break the cue**. Should you have any unsaved changes, the following dialog box will appear:



Should you wish to keep a copy of the **Cue Sheet** in it's original form, then click on **Save As**, which will allow you to give a different file name to the cue you are about to break. When you click on **Save**, **CUE** will save the cue and proceed to break the cue into the two parts.

The second part of the cue will be saved with an "A" appearing after the name. Thus, the second part of **Zarkov/1m2** will appear as **Zarkov/1m2A**.

It is important to note that **CUE** has not saved the first part of the cue in it's shortened form. Should you want the second half of the cue to appear as a reference, you can select **Revert** from the **File** menu and the entire cue would reappear with the reference point in it that you last **Saved**. If you are sure you want to keep the cue in it's shortened version, you can save it without **Reverting**.

After saving the abbreviated cue, you would have to use the **Merge** function if you wished to put the two parts together again.

Merging Two Cues From the Same Reel

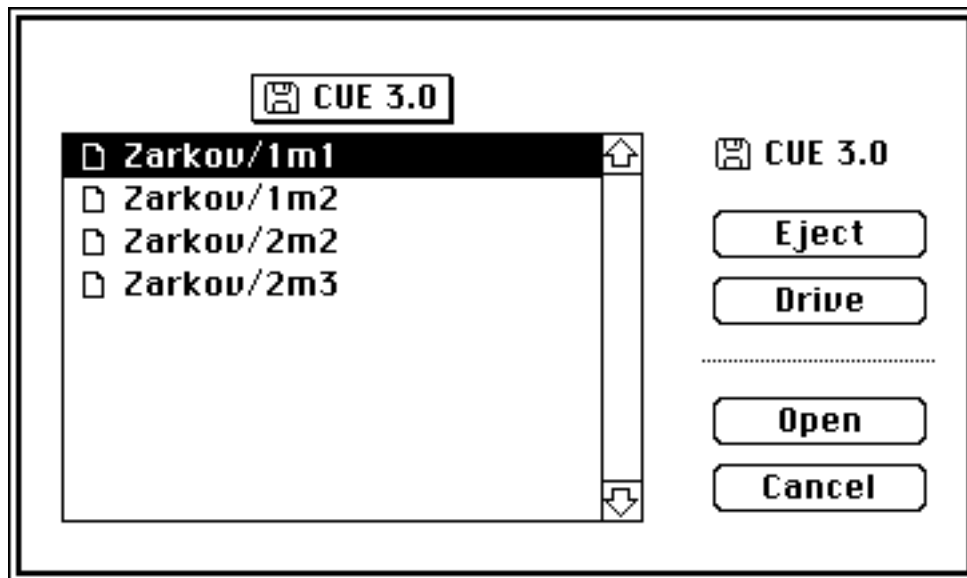
Merging two cues that are in the same reel can be a very easy process if you follow a few basic rules. It can also be like wrestling a greased gorilla in a phone booth if you don't. The key is this: When your **Running Times** are set, **CUE** will handle the **Merge** automatically if your cues are labeled correctly.

1. Enter your **Running Time** on every cue.
2. Label your cues correctly.

CUE recognizes production codes from the file name, so use the same production code followed by a slash (/) as in **Zarkov/1m1**, with every file that is part of a particular project. Since **CUE** can tell that cues are from the same reel from the cue numbers you enter into the **Set Cue Info** dialog box, be certain that this information (1m1, 1m2, etc) is in place and correct.

It is only when **CUE** sees two cues from the same production and the same reel that it will correctly **merge** them without you having to enter any additional information.

CUE merges a prompt-selected cue to that cue which is already in the **Cue Sheet**. So whichever cue comes first needs to be in the **Cue Sheet** before you proceed. Open **Zarkov/1m1** for a test of this procedure. Click on the **File** menu and select **Merge Cues**. You will be presented with a directory. Pick which cue will be appended to the one already in the **Cue Sheet**.



Double-click on **Zarkov/1m2**, and you will see the following:

1m1	1m2
-10.00 START OF CUE. 0.00 THE NIGHT SKY FADES IN 2.50 A SHOOTING STAR ARCS ACROSS THE ... 5.38 CAMERA PANS DOWN TO FOLLOW THE S... 9.63 FS VIEW OF A GLOWING CRATER LEFT... 11.46 START TO PAN IN TOWARD THE CENTE... 15.58 MS OF A LARGE SHINING EGG THAT I...	0.00 START OF CUE. 2.96 A BRIGHT LASER BEAM OF LIGHT BEA... 4.00 THE BEAM BLINDS THE CAMERA EYE A... 7.17 AT THE BASE OF THE "HAYSTACK" TH... 8.21 MEDIUM CLOSE-UP OF MORG WHOSE SL... 15.42 THE LIGHT SWEEPS BY AGAIN 18.71 MORG BECOMES AGITATED AND BEGINS... 20.25 MORG SPEAKS: "IT'S NOT TIME YET... 26.00 E.L. (END OF LINE) 26.75 AS THE DAWN BEGINS TO BREAK, A C... 30.54 ERGON'S NIGHTMARE MACHINES ARE ... 35.96 MORG PEELS BACK SOME CANYAS IN T... 40.08 MORG'S SNAGGLE-TOOTHED MOUTH IS ... 40.13 DIAL: "THEY HAVE FOUND THE EGG. ... 43.92 END DIALOGUE 46.17 A CRACKING-TEARING SOUND IS HEAR... 47.33 MORG SPINS AROUND TO LOOK. 48.33 C.U. OF THE OUTER SKIN OF THE GL... 48.83 MORG BEGINS TO CACKLE WILDLY. 50.46 WE BEGIN TO SEE SOMETHING MOVING... 51.71 ERGON IS CLOSING IN. WE SEE HIS... 57.00 WITH AN INCREDIBLE SHRIEK, THE E... 58.63 MORG IS DANCING WILDLY, LEAPING ... 1:01.46 EMERGING FROM THE EGG IS ZARKOY... 1:05.33 ERGON AND HIS WARRIORS PULL TO A... 1:09.17 THEY CUT THEIR ENGINES AND SILEN...
End at: <input type="text" value="23.33"/>	Start at: <input type="text" value="0.00"/>
<input type="button" value="OK"/> <input type="button" value="Previous"/> <input type="button" value="Next"/>	<input type="button" value="Previous"/> <input type="button" value="Next"/> <input type="button" value="Cancel"/>

Under the first cue is a box where you can enter the time that the first cue ends, and under the second cue is a box for entering the time when the second cue starts.

If these cues had more than one "page" to them, you could flip forward or back through the "pages" of either cue by clicking on the **Next** or **Previous** buttons under each cue.

Should you not want to follow through with this **Merge Cue**, then clicking on the **Cancel** button will return you to the **Cue Sheet**.

Examine the number displayed in the **End at:** box. Instead of listing the time of the last cue point in **1m1**, it is showing where it plans to start **1m2**. Since **CUE** has everything under control, we need do no calculations and can click on **OK** (or hit the **Enter** key). This will complete the **Merge** and return us to the **Cue Sheet**, where we can now examine our **merged** cue.

If you decide not to keep the results of your **merge**, click on the **File** menu and select **Revert**, which will permit you to restore the cue to its original form.

Merging Cues From Separate Reels

Probably one of the places you will most often encounter the need to **Merge Cues** is where there is a reel change right in the middle of a cue or where you end up dealing with a non-mechanical reel change.

Every step taken in the previous merge example applies here, right up until the point where you would click **OK** (or hit the **Enter** key). Since the two cues are from different reels, **CUE** does not know how to connect them. This means you will have to help out by placing an end time in the **End at:** box under the first cue.

When **Merge** is chosen under any circumstance other than two correctly labeled cues from the same reel, the time displayed in the **End at:** box represents the last cue point of the first cue. Add to that number the amount of time which separates this cue from the beginning of the second cue, and the **Merge Cue** operation will take place successfully.

If you want to cut off the second cue's beginning, take the time of the second cue where the **merge** should begin, point and enter it into the **Start at:** box. Again, clicking on **OK** (or hitting the **Enter** key) will complete the **merge**. Try this by combining **Zarkov/1m2** with **Zarkov 2m2**.

As a result of a radical cut that the director made, **Zarkov/2m2** now starts six seconds after the end of **Zarkov/1m2**. In fact, he has cut directly to the second cue point in **Zarkov/2m2** as well. Enter your **Merge Cues** comparison page and type 1:15.17 into the **End at:** box, and 4.17 into the right hand **Start At** box. Merge the two cues. You will now see that **CUE** has not only placed the beginning of what had been **Zarkov/2m2** six seconds after **Zarkov/1m2**, but has begun on the second cue point of the second cue as well.

	they are too late.		
s0:01:09:05 ✓	They CUT their engines and silence falls on this weird tableau. Only a strange wind can be heard that the music fades down into.		161.24
s0:01:15:05 ✓	CUT CU of Zarkov, his face reflecting the flicker of the flames as he sits deep in thought		175.14
s0:01:19:19	CUT Medium CU of Morg sitting a bit back from the flames and gazing in awe at Zarkov		185.48
s0:01:21:15	DIAL: "MORG, BRING ME THE CHEST."		189.81

All the timings of what had been **2m2** have been recalculated. Whether the same **Tempo** will work for all of this new extended cue is another matter completely...

Set Change Over

After the director's radical cuts of **Zarkov**, executed with a dull hatchet, your cue **4m4** now spans two reels. While the **Relative** times need to stay the same, halfway through the cue the **Absolute** times need to reflect this reel change over. The **Set Change Over** command under the **Operations** menu enables you to do this:

Reel Change Over

Reel Ends At:
s4:09:12:10

Next Reel Starts At:
5 (hr) s0:00:30:00

Show Change Over

OK Cancel

Enter the end time of the current reel you are working in, and the start time of the next reel. All **Absolute** times will now reflect the change over, while the **Relative** times remain the same. If you would like to see a notice of the change over in your cue sheet, then click the **Show Change Over** box and **CUE** will print a **Reel Change** message in the **Cue Sheet** at the correct place.

***** REEL CHANGE OVER *****

END of CUE.

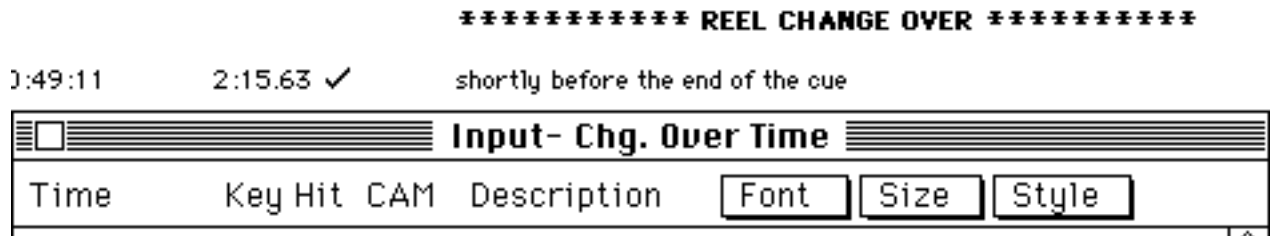
330.54

We are using SMPTE numbers here, since our "work print" was striped with SMPTE. Remember however, you have only to change **Time Formats** in **Multi-print**, to get your feet/frames numbers in a print-out for the music editor.

After a **Change Over** has been included in your cue, both you and **CUE** will need to keep the **Absolute** and the **Change Over** times straight. Here is how it's done:

Enter Change Over Times

Now you have a reel change over in the middle of a cue, and **CUE** will need to distinguish between not only **Absolute** and **Relative** times upon input, but also between the **Absolute** and the new **Change Over** time. After all, this is ONE cue, and we want to enter it as such. Make sure you are in **Absolute Time** mode (**Command-A**), go to the **Operations** menu, and place a check next to **Enter Chg. Over Time** (select it). The **Input** window will now let you enter times occurring after the change over. The top of the **Input** window now shows:



Change Over time is only a form of **Absolute** time, where the SMPTE hour (reel number) has changed, and **Relative** time is unaffected by the reel change over. The **Enter Chg. Over Time** title will be greyed out in the **Operations** menu, unless you are in the **Absolute Time** mode.

If you wish to return to entries in your previous **Absolute Time** (cues before the change-over), or want to enter **Relative** time cue points, uncheck the **Enter Chg. Over Time** or use **Command-A** to return to **Relative Time**.

5 Spotting Notes

While the Spotting process may be the first practical use for **CUE** as you begin work on a feature, we have placed the information at this point in the manual so that you will already be familiar with the basic workings of the **Cue Sheet**.

Spotting Notes allows you to enter information about the film, and also sets up all the files you will need later to generate **Cue Sheets**. With the exception of the actual **Spotting Note** description, all information typed in here will be entries you won't have to duplicate when actually producing the **Cue Sheet**.

You create **Spotting Notes** by clicking on the **Operations** menu and selecting **Set Spotting Notes**. The following dialog box will open:

Set Spotting Notes

Prod. Title Cue #

Cue Title

SMPTE hr. Start Time End Time

Music Editor

If you have a **Cue Sheet** in memory when you select **Set Spotting Notes**, titles, times, and description notes (if entered into **Set Spotting Notes** at an earlier point) will show up in the boxes here.

The large box at the top of the window is provided for you to enter a brief description of the scene, or edit those notes which have appeared there from the **Cue Sheet** in memory.

The next items will seem familiar because we have already met them in the **Set Cue Info** and **Set Running Time** dialog boxes. Typing in the **Production Title**, **Cue #** and **Cue Title** will automatically place this information in the **Set Cue Info** dialog box. For a correctly ordered print out, make sure you number your cues in the **Cue #** box using the form *rrMss*, where *rr* is the reel number and *ss* is the start number (**6m4** is the fourth cue on reel six).

Entering the **Start Time** is just like entering the **Running Time** (page 20) and will place the data into that dialog box. Remember that if you are entering a SMPTE number you should place the SMPTE hour in the box labeled for this purpose, and just type SMPTE minutes, seconds and frames into the box labeled: **Start Time**.

Typing the end point (without the SMPTE hour) of the cue into the box marked: **End Time**, will create a single cue point in the **Cue Sheet** whose description will be: "End of Cue". Although you won't be able to see it in the **Cue Sheet**, this **End Time** has a **Reference Point** embedded in it's text. You will only notice the **Reference Point** function if you try to type in timing points that fall later than the cue point marked **End Time**. If in fact a **Reference Point** appears when entering data to the **Cue Sheet**, you have probably entered cue points past the original end the cue entered here. If you wish to continue on past this point, delete the reverse slash (\) which begins the description of that cue point, or delete the whole "End of Cue" cue point and proceed.

You can have only one **Reference Point** per **Cue Sheet**. If there several entered, **CUE** will display the first one it comes to in the **Cue Sheet** as a **Reference Point** and ignore any later **Reference** entries.)

A space is provided to type in the name of the **Music Editor**. This information will get included in the **Title Page** assembly (page 108).

The last items in this dialog box are the four buttons at the bottom.

Save New Cue allows you create a new cue with the name you have entered. Clicking on this button will bring up a **Warning** box telling you that proceeding with this operation will completely erase any cue points currently in memory, and replace them with the information you have entered in the **Set Spotting Notes** dialog box. After clicking on **OK**, enter a new cue name, or save your material under the one currently in memory. Be careful not to lose valuable cue points and cue descriptions by replacing a previously created cue through the **Save New Cue** procedure.

Save Edit will save the existing cue points in currently in memory, and add the **Spotting Notes** dialog information to this material. You should always use **Save Edit** if you want to add or change the spotting notes on an existing cue. Clicking on this box will bring up the **Save Current cue as** prompt. You can save you cue under the name currently in memory, or create a new one.

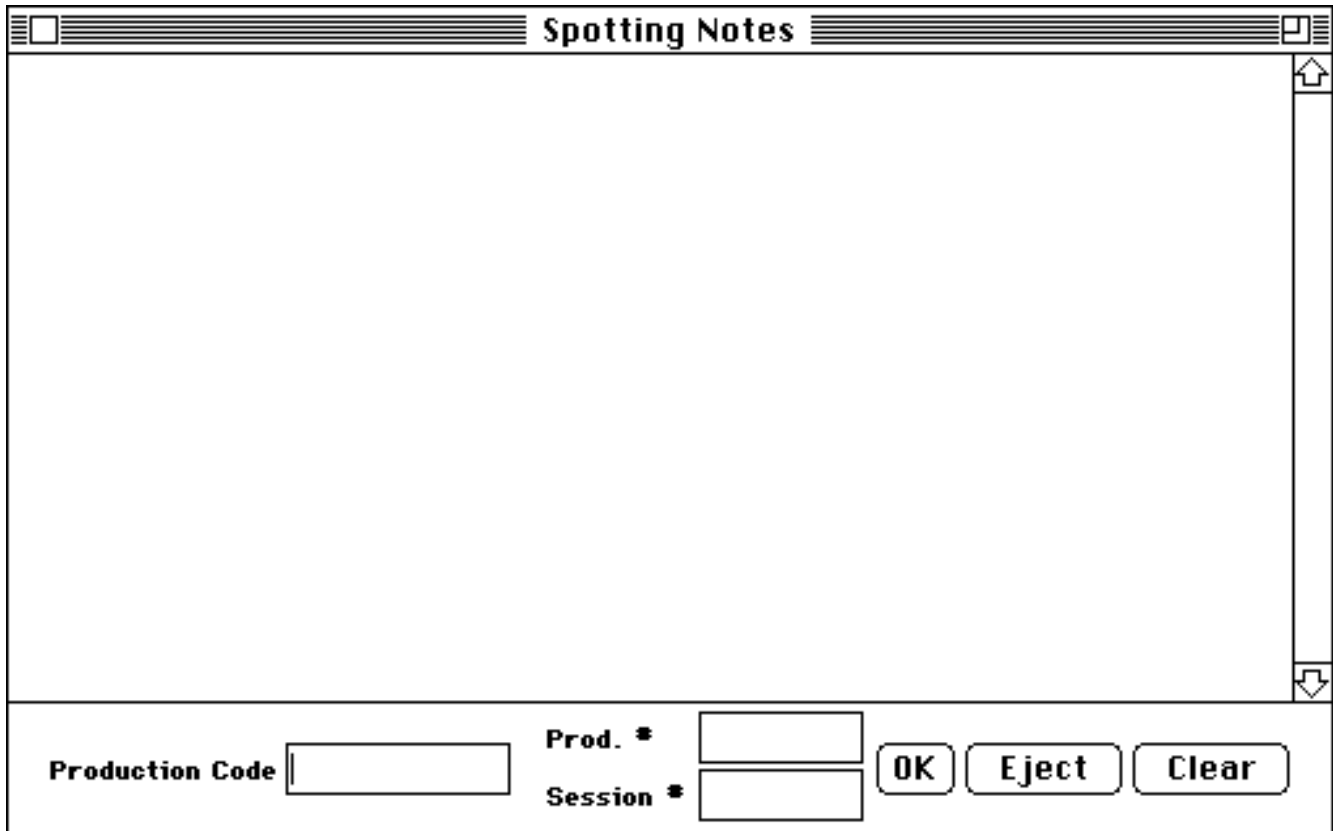
Be sure that you follow all the naming conventions for files and folders described under **Naming Your File** and **Saving Your File** (page 54) for both the **Save New Cue** and **Save Edit** selections.

Two other buttons are included at the bottom of this box. **Open** lets you select other files for editing without having to leave this dialog box. **Done** returns you to the **Cue Sheet** in memory after you have finished **Saveing**, or allows you to exit without modifying the **Spotting Notes** box.

Displaying the Spotting Notes

Printing your **Spotting Notes** takes place in an identical manner to the **Master Cue List** and the **Performing Rights Cue Sheet** procedure. Make sure that your files are named correctly with the production code (name) followed by a slash (/) and your Cue or Reel designation. Make sure as well, that your files are not nested within any other folder(s) with a different name.

Click on the **Windows** menu and select **Spotting Notes**. The following window should appear:



Create your **Spotting Notes** compilation by typing the "production code" name into the box at the bottom left of the window. If you have named your files correctly with the production code followed by a slash (/) and the cue number, then **CUE** will be able to accurately search and compile the report. Do not add the slash or cue number to the **Production Code** box.

Production # and **Session #** boxes are included at the bottom of this window as well. They will reflect what has been entered in the **Set Cue Info** box for those cues which are being edited. Only cues with matching session numbers will be displayed upon clicking **OK**. **CUE** will look for **Cue Sheets** with matching **Session #s** when 1 through 9 is entered in that box. Thus you can search for cues that are from a specific production and session. Television series coded with the same production code, may well use these additional qualifications to display a particular episode. To begin a search which discriminates according to **Production #** or **Session #**, the words **Prod. #** and/or **Session #** must be highlighted, with the proper numbers entered into their associated boxes.

Session # Entries other than 1 through 9 will cause all cues with matching **Production Code** numbers to be included in the compilation.

Before you click on **OK**, (or hit the **Enter** key) to initiate the search procedure, be sure that **CUE** knows about all the disks you want to include in the search. Any disks that have not been placed into a disk drive since you opened the program should be inserted at this time. Clicking on the **Eject** button will remove disks currently in use so you can place other disks in your drive. You can repeat this process as many times as is necessary, although if you are careful with your disk management you should be able to get an entire film onto a single 800K disk.

Now click on **OK** and you will be asked if you want to **Search** or **Skip** each disk that has been inserted since you began your current use of **CUE**. If you have forgotten any disks, you will have to go through the **Search** procedure all over again, so it is good to be organized before you start.

After all the disks have been searched the **Spotting Notes** will appear on the screen in the identical manner in which they will print out:

Spotting Notes		
Production: Zarkov Unchained Production #: 0000		
MUSIC SPOTTING NOTES		
Monday, January 8, 1990		
REEL 1 (2 Starts)		
1m1	9.57	"Opening Shot"
s0:00:10:00		Picture starts with fade in of nighttime sky. A shooting star arcs across the sky and disappears behind some hills.
s0:00:19:17		CUT to shot of crater as CAM PANS towards center to reveal a large shining egg in the crater. The egg reflects the embers still glowing on the ground.
On Camera Vocal		
1m2	1:09.17	"Birth Sequence"
s0:00:33:10		A laser beam sweeps horizon and awakens MORG who has been sleeping at base of haystack. MORG becomes irritated and runs around saying
s0:01:42:15		"IT'S NOT TIME YET. THEY'RE EARLY!" As dawn breaks, ERGON'S nightmare machines approach across desert MORG walls into
On Camera Instrumental		
Production Code	<input type="text" value="Zarkov"/>	Prod. # <input type="text" value="0000"/>
		Session # <input type="text"/>
		<input type="button" value="OK"/> <input type="button" value="Eject"/> <input type="button" value="Clear"/>

Each Reel number will appear in **Bold**, along with the number of music starts found in that reel indicated in parenthesis after it. The top line of each **Spotting Note** lists the cue number, cue length and cue title. Beneath this are the start and stop times of the cue in the current **Absolute Time Format** as well as the musical usage. To the right is the description entered in the **Spotting Notes** dialog box.

At the very bottom of the report you will find the total musical starts for the entire production listed in bold face type. This is followed by cumulative time for each type of musical usage (entered in the **Set Cue Info** for each cue), and finally the total quantity of music for the entire production.

TOTAL STARTS:	3
On Camera Instrumental	1:42.55
On Camera Vocal	9.57
TOTAL MUSIC:	1:52.12

To actually print out the report, click on the **File** menu and select **Print Spotting Notes** from the **Print** sub-menu.

Organizing Your Files

Virtually all Macintosh users these days will be running with HFS (Hierarchical File System) initialized disks and will want to put cues in nested folders. Your folder names must start with the "production code" and a slash (/) in order for them to be included in a search. The folders can be nested as deep as you want as long as they follow the naming convention. For example, you might have a folder named **Zarkov/Cues** that contains other folders named: **Zarkov/Reel 1**, **Zarkov/Reel 2**, **Zarkov/Reel 3**, etc. Each of these folders would contain the actual cues.

Note: Systems using the old MFS (Macintosh Filing System) are probably not capable of running **CUE 3.0**.

Big Fat Important Note: We are trying to call particular attention to this next point because in the years that this program has been available to the public, this is the single most asked question:

It goes something like: "All my files are named correctly. Why can't I compile my **Spotting Notes** (or **Master Cue List** or **Performing Rights Cue Sheet**)???"

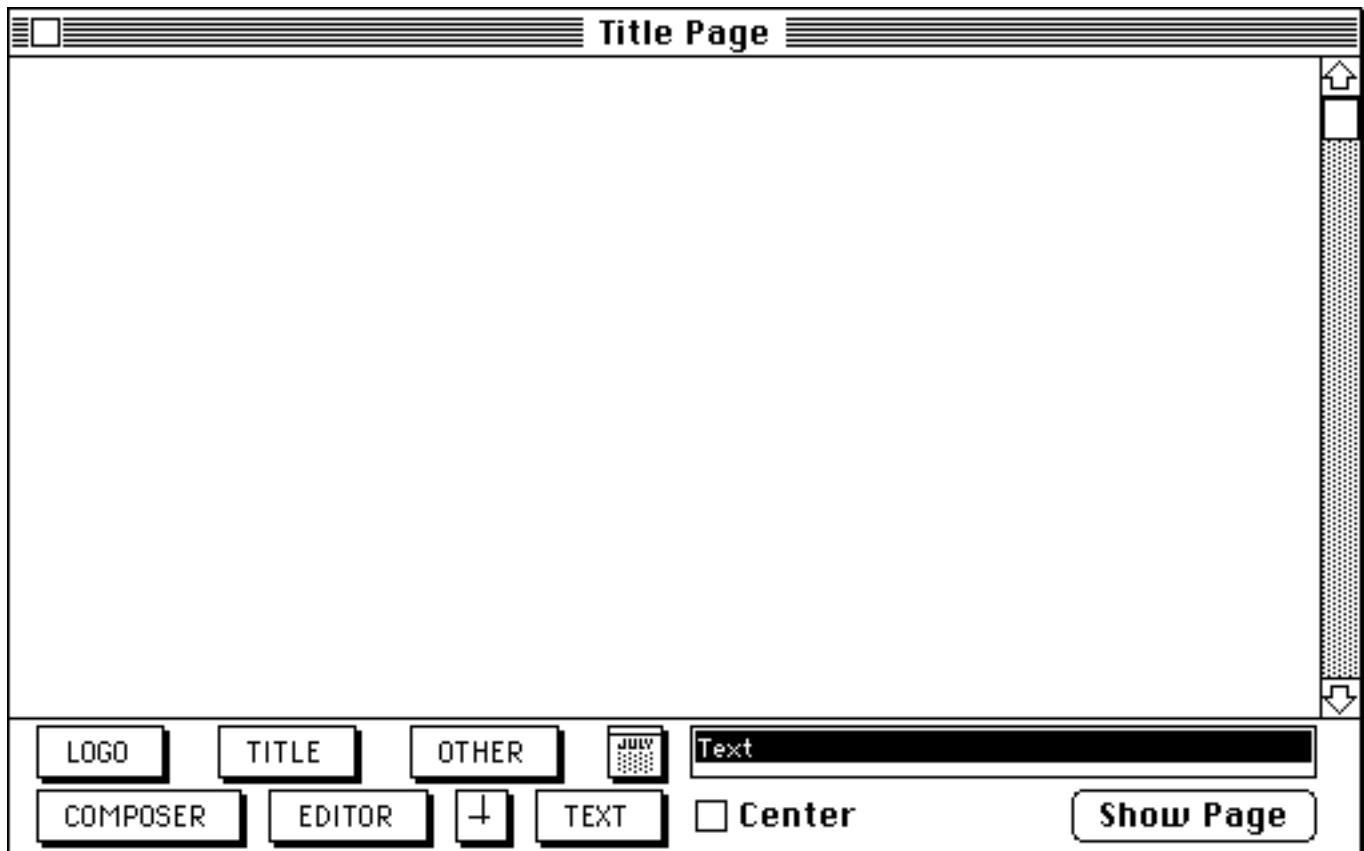
The most common mistake made by **CUE** users is that after they have named their cues correctly and placed them in folders that also follow the labeling convention of the production code followed by a slash (/), they place *all* of their **CUE** material into a folder labeled **CUE** or **Film Stuff** or **Top Secret** or **Winky the Dog With No Name**. Doing this makes it impossible for **CUE** to recognize and locate the files it is being asked to compile into a report such as **Spotting Notes**. Do not put your files into a folder labeled with anything other than the production code if you expect this feature to work.

Entering Your Spotting Notes Into the Preface

If you find that it would be useful to see the first 5 or 6 lines of a **Spotting Note** appear as the **Preface** in the actual **Cue Sheet**, you can easily accomplish this by clicking on the **Edit** menu and selecting **Spotting Notes to Preface** when you are back in the Cue Sheet window. Since the text entry box for **Spotting Notes** is larger than the one available for your **Preface**, you will not be able to transfer a longer **Spotting Note** in it's entirety. A suggestion would be to make sure that all key information you want transferred is up near the beginning of the **Spotting Note**.

6 Creating a Title Page

Once all your basic information has been entered into **Set Spotting Notes** and/or **Set Cue Info**, CUE can create a **Title Page** quickly and easily. Click on the **Windows** menu and select **Title Page** in order to proceed.



At the bottom of the window are a number of labeled rectangles that you can drag anywhere in the workspace located above the dividing line. When you release the button on the mouse, the box you have dragged will instantly display the corresponding information you have loaded into the **Cue Sheet**. Dragging the boxes below the dividing line removes them from the layout.

Title, **Other** and **Composer** derive their information from items you have filled in on the **Set Cue Info** dialog box. **Editor** pulls the editor's name from the **Set Spotting Notes** dialog box. The **Date** and **Time** come from the clock that is a basic part of the Macintosh.

The only boxes that do not work this way are the ones marked **Text** and **Logo**.

Text lets you enter a short line of miscellaneous information in the little text entry box at the far right of the top line. Since space at the bottom of the page prohibits the display of all 50 characters you can enter, you may want to move the small box marked text above the line where it will then display all the characters you are typing.

The **Logo** box is for the placement of a logo that you work out in MacPaint or some other related art design program. Once you have created your artwork, transfer of it to the **Title Page** is done by having both your art program and **CUE** open at the same time using Multifinder, or by using a Desk Accessory like Art Grabber.

Click on the box marked logo and drag it on to the area of the page where you wish to place it. When you release the mouse's button you will see that the box has expanded in size considerably and is now highlighted black. This means that it is ready to receive. By copying the Macpaint art or "grabbing" it with one of the many graphic copying DAs, you can proceed to paste it into **CUE** by typing **Command V** or selecting **Paste** from the **Edit** menu. Your logo will appear on the work page portion of the **Title Page** window in the identical size that you created. Clicking once on the logo will unhighlight it.

If you want to make your graphic bigger, you can do so by clicking on the **Logo** box once more. This will highlight it again and also bring up two small boxes at the upper left and lower right hand corner of the **Logo**. Dragging the box at the lower right horizontally will increase the width of your **Logo**. You can expand the height if you drag the box downward (vertically). Reversing these actions will decrease the size of your **Logo**.

If you drag in a diagonal direction you will modify the **Logo** height and width simultaneously. Holding down the **Shift** key while you drag the mouse diagonally will modify the length and width in perfect proportion to one another. Holding down the **Command** key and clicking once on the little sizing box will pop your logo back to it's original size.

The little box at the upper left of the **Logo** is used to drag the **Logo** to any place on the page that you wish to have it displayed.

Centering Your Work

There are two ways to automatically center the various items on the **Title Page**.

If you click on the item labeled **Center**, an "x" will appear in the box to its left. Any item that you drag up into the work area will now jump to the center of the page as soon as you release the mouse button.

When you have set something on your **Title Page** that you now wish to have centered, click **Center** "on" and then click on the item you want to have centered. It will instantly appear at the middle of the page. To center the logo in this manner you must click on the little box at the upper left hand corner of the logo.

Holding down the **Shift** key while dragging will lock the item to a vertical grid. Clicking on it with the **Shift** key down will cause the item to snap to a vertical grid.

To see what your whole **Title Page** is looking like, click on **Show Page** which will create a miniature version of the whole page so you can study the overall placement of all your items. Notice that this button now reads **Show Screen**. Clicking on it again will return you to your work screen.

Saving Your Title Page

You save your **Title Page** by clicking on the **File** menu and selecting **Save Title Page As** from the sub-menu of the **Save As** entry. Once you have done this, your **Title Page** will appear in the **Finder** looking like this:



Printing Your Title Page

Click on the **File** menu and select **Print**. A Hierarchic menu will include **Print Title Page** which you can then select.

Opening a Saved Title Page

The **Title Page** is saved as a template that can be reused on each new project. It will display the title, composer, etc. of the cue that is currently in the **Cue Sheet**. The only adjustments that might need to be made when you start a new project are in items that you want centered.

To open your **Saved Title Page** click twice on the **Title Page** icon in the **Finder**, or if you are already in the program, click on the **File** menu and select **Open Title Page**.

6 Tempos

For most of us, this is where we say goodbye to the Click Book.

CUE will search for your **Tempos** and **Offsets** and allow you to place multiple changes of **Tempos** and **Offsets** into your **Cue Sheet**. It will also calculate **Accelerandos** and **Ritards** so you can re-time any cues for which you can't find a perfect **Tempo**. These modifications to your **Cue Sheet** will affect both the custom **Score Paper** you create as well as the **Click and Sequence Playback Modes**, so it is here that **CUE** kicks into high gear on behalf of the composer.

When you add the ability to hand tap a **Click Track**, enter up to 400 different **Tempos** in a single cue, **Scale** the **Tempos** for all or part of a given cue, and **Calculate Tempos from Beat and Time**, you can see what a powerful ally **CUE** can be in your work.

The Click Book

Although one of the central purposes of **CUE** is to render the traditional **Click Book** unnecessary, there may still be times when you will find it useful to consult one. Because of this, **CUE** provides you with a super **Click Book** which you can access by clicking on the **Windows** menu and selecting **Click Book**, or typing **Command Opt-K**.

Click Book (Tempo Format: 24 fr.)										
	0	1	2	3	4	5	6	7	8	9
		0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00
10	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
20	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50	14.00
30	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00
40	19.50	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00
50	24.50	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00
60	29.50	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00
70	34.50	35.00	35.50	36.00	36.50	37.00	37.50	38.00	38.50	39.00
80	39.50	40.00	40.50	41.00	41.50	42.00	42.50	43.00	43.50	44.00
90	44.50	45.00	45.50	46.00	46.50	47.00	47.50	48.00	48.50	49.00
100	49.50	50.00	50.50	51.00	51.50	52.00	52.50	53.00	53.50	54.00
110	54.50	55.00	55.50	56.00	56.50	57.00	57.50	58.00	58.50	59.00
120	59.50	1:00.00	1:00.50	1:01.00	1:01.50	1:02.00	1:02.50	1:03.00	1:03.50	1:04.00
130	1:04.50	1:05.00	1:05.50	1:06.00	1:06.50	1:07.00	1:07.50	1:08.00	1:08.50	1:09.00
140	1:09.50	1:10.00	1:10.50	1:11.00	1:11.50	1:12.00	1:12.50	1:13.00	1:13.50	1:14.00
150	1:14.50	1:15.00	1:15.50	1:16.00	1:16.50	1:17.00	1:17.50	1:18.00	1:18.50	1:19.00
160	1:19.50	1:20.00	1:20.50	1:21.00	1:21.50	1:22.00	1:22.50	1:23.00	1:23.50	1:24.00
170	1:24.50	1:25.00	1:25.50	1:26.00	1:26.50	1:27.00	1:27.50	1:28.00	1:28.50	1:29.00

Tempo

12 - 0

Find Click #

1

Find Time

0.0

Prev

Next

For those deprived unfortunates who have never had the opportunity to fondle the sacred pages of a traditional click book, an explanation of the above display is in order.

Each page of a **Click Book** lists the first 599 beats of the current tempo and the times at which they occur. In the example page above, a 12-0 click tempo has been selected. Beat #1 hit's at 0.00 seconds, beat #3 at 1.00 second, etc. To help you find a particular beat in this sea of numbers, the "one's" column of the beat number is listed across the top of the page and the "ten's" column is listed down the left. To find beat number **57**, for example, find the number **50** in the "ten's" column and then move right to the column under the number **7**. You will find that beat **57** falls on the **28th** second. The entire list of 599 timing points can be seen by using the scroll bar to the right of the window, and scrolling to the bottom of the page.

While the **CUE Click Book** looks much like it's printed counterpart, it has a number of special features which greatly enhance it's flexibility and speed of use.

The first and most important feature in the **Click Book** is time format selection.

The **Click Book** display will show all of its timing points in whatever **Time Format** you have set in your **Set Formats** dialog box under the **Operations** menu. You can select the **Set Time Formats** dialog box from the **Click Book** window without returning to the **Cue Sheet**. There are two columns in this box.

CUE will display the **Click Book** timing points in the time format chosen for **Relative Time**. The **Click Book** time format will not respond to format changes if both columns are set to display Absolute time. However, when you change the **Relative** time column from one format to another, you will see the new **Time Format** instantly displayed in the **Click Book** window.

Second, the **Click Book** will work with any of the tempo formats available to you in the **Set Tempo Formats** window of the **Set Formats** dialog box. The tempo format you have chosen will be shown as part of the title at the top of the **Click Book** window.

A Third feature is the ease of navigation through the **Click Book** numbers to the time point you need. At the bottom of the window there are three areas for entering text. They are labeled **Tempo**, **Find Click #** and **Find Time**.

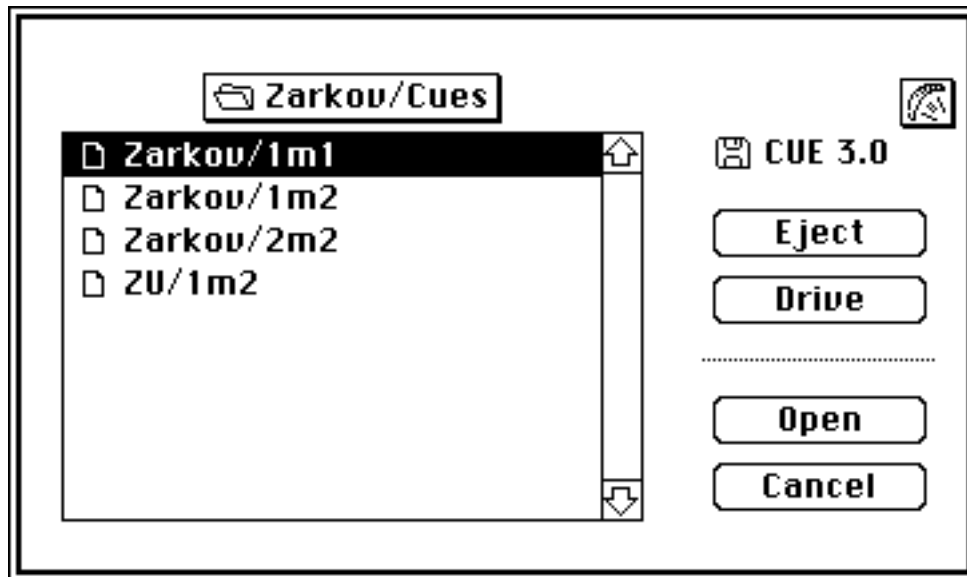
When you type in a beat number and hit the **Find Click #** button, that specific beat will be highlighted on the page. If you type in a time and click on **Find Time**, the beat that comes the closest to that time will be highlighted.

If you enter a tempo in the current **Tempo Format**, and then click on the button marked **Tempo**, the **Click Book** will display the first 599 beats of that tempo in the current **Time Format**. You can hear the selected tempo from the Mac Speaker, audio output or MIDI Click Source, by holding down the shift key and clicking on the **Tempo** button. A second click will stop the audible pulse. The audible metronome can also be muted or unmuted by selecting the **Clicks On/Clicks Off** item in the **Misc** menu.

To the far right are two buttons marked **Prev** and **Next**. By clicking on them you can decrement or increment the tempo by one step for each click of the button. By stepping up or down you can quickly see what tempo comes the closest to catching the highlighted beat nearest to the time in the **Find Time** area. Beats per Minute will be incremented or decremented by 10ths or 100ths, depending on what you have set in the **Set Tempo** dialogue box. Should you be in the 24 frame **Fractional Mode**, the **Prev** and **Next** buttons will change the tempo by an 80th of a frame.

Loading a Cue

To work with **Tempo Search**, let's call up another cue which will be more of a challenge as it has more cue points than our current sample. Click on the **File** menu and select **Open Cue** from the pop up menu that appears when you select **Open**. You will be asked if you wish to save our current file in it's most recent form. Make a "yes/no" decision on this and you will be presented with a standard "open" box that lists what you have on your disks.



Open the file called **Zarkov/1m2** by clicking twice on it. (If you do not see that file listed, click on the button labeled **Drive** which will change your file dialog to the other drive where you should see it listed. It is also possible that the file may be nested safely inside a folder, which means you will have to double click on the folder title to see what is listed in it.)

If you are choosing this file from the **Finder**, click twice on the icon that looks like this:



The Macintosh will load not only "Zarkov/1m2", but also **CUE**.

Selecting the Tempo Format

We dealt with setting the **Time Formats** as part of the **Cue Sheet Setup** on page 24. Now is the time to get to know the Tempo Format feature better. Select **Tempo Formats** from the Set Formats sub-menu in the Operations menu. You can also type **Command opt-T**.

Set Tempo Formats

Frames Per Beat @24 Frames per Second
 fractional tempos

Frames Per Beat @25 Frames per Second

Frames Per Beat @29.97 Frames per Second

Frames Per Beat @30 Frames per Second

Beats Per Minute
 tenths **hundredths**

Tempo Format gives you the choice of whether you want to base your **Tempo** on **Film Frames** (frames and eighths of a frame per beat with the option of dividing each frame into eightieths if you select **fractional tempos**), **SMPTE Frames** (frames and eightieths of a frame per beat at 25, 29.97 and 30 frames a second), or **Beats Per Minute** with the option of dividing the beats into either tenths or hundredths. Click on the **Tempo Format** you wish to work in and then click on **OK** (or hit the **Enter** key).

Let's click on **Frames Per Beat @ 24 Frames per Second** since this is a format lots of film composers are comfortable relating to. If you try any of the other formats for experimentation, you will see that the second line from the top of the **Cue Sheet** will list the **Tempo Format** you have chosen.

Setting a Tempo

Let's suppose that you already know the **Tempo** that you want to set. Select **Set Tempo** in the **Operations** menu (or type **Command T**), and the following dialog box will appear:

Set Tempo (24 Frm.)

Play 11 - 4 Search Results

Frames 1/8s

Tap Tempo

Calc Tempo from Beats and Time

Previous Tempo Next Tempo

Starting at click # 1

Ending at click # 145

OK Undo Last Exit

What you have here is a flexible **Tempo** control center that gives you the option of making as many as 400 different **Tempo** changes per cue. The **Tab** key allows you to move most easily between the 4 entry boxes, but you can use the mouse as well. By typing in your **Tempo** choice and clicking **OK** (or hitting the **Enter** key), you will set the cue to that **Tempo**. To leave this dialog box, click on **Exit**.

Whatever number is entered in the box labeled: **Starting at click #**, will determine the beginning point of the **Tempo** selected in this window. Use the default setting of **1** if you wish to begin your cue with this tempo. If the **Cue Sheet** behind this dialog box has the click numbers displayed as bars and beats, you can switch them to only clicks by typing "y" (either upper or lower case).

The box directly below, **Ending at click #** this lets you designate an ending click number for the **Tempo** change you are making. If no number is entered in this box, the tempo selected in this window will play through the end of the cue. By entering an ending click, you will be returned to the previous **Tempo** at that point. As an added reminder, the small box to the left of the **Ending at click #**

line must be checked in order to specify an ending tempo. To save you a key stroke, the box will become automatically checked whenever you enter an ending click.

Being able to enter different **Tempos** at different spots in the cue lets you fine-tune your **Click** track in those cases where a single **Tempo** or **Offset** will not work for the entire cue. When you enter a **Tempo** in the middle of your cue, the **Cue Sheet** will display the change you have made.

To see how this works (and looks), enter a **Tempo** at some click point other than **1**, click on **OK**, and check your **cue sheet** behind your dialog window. In the following example, a **Tempo** of 11-5 in 24 fps format was entered starting at click # 28).

s0:00:08:06	CUT	Medium close-up of Morg whose sleep has been awakened by the beam of light	19.99
s0:00:11:20		(THE TEMPO CHANGES TO 11-5 ON THIS CLICK)	28.00
s0:00:15:13 ✓		The light sweeps by again	35.73

If you wish to cancel the **Tempo** you have just set, click on the **Undo Last** button.

You can recall and modify the different tempos entered into your **Cue Sheet** by clicking on the **Previous Tempo** and **Next Tempo** buttons of your **Set Tempo** window. This will cause the **starting** and **ending click #** as well as the tempo of the **previous** or **next** tempo to be displayed. You can click back or forward as many times as you have **Tempos** entered in either direction. Another way to move through the different **Tempos** is to use the right and left arrows on the keyboard.

Scrolling the Cue Sheet Behind the Dialog Box

If you want to scroll the **Cue Sheet** behind this dialog box you can do so by hitting the up/down arrow keys on the keyboard.

How to Hear Your Tempo

Clicking on the button marked **Play** in the **Set Tempo** dialog box will cause **CUE** to play the **Tempo** you have displayed in the **SetTempo** dialog through the Mac speaker. A second click on the **Play** button will stop the clicks. If you do not hear clicks when you hit **Play**, check your **Apple menu** in the **Macintosh Control Panel** to see if the sound has been turned off, or if you have the click turned off in **CUE's Misc** menu. If you look under the **Misc** menu and it says **Click On**, that means that the click is **Off** and selecting item will turn the click **On**. If it reads **Clicks Off** than this means the click is **On** and selecting this will turn the click **Off**. Another way to access the click **Play** feature from the **Set Tempo** dialog box is by typing the letter **O**.

You may need to set a number of different **Tempo** changes in one cue, so the **Set Tempo** dialog box does not return you to the **Cue Sheet** when you click on **OK**. If you click on **OK** (or hit the **Enter** key) after every entry, you will log each of them into your **Cue Sheet** without having to leave **Set Tempo**. When you are ready to leave the **Set Tempo** window, or if you were just browsing, and haven't **OKed** anything this time around, click on **Exit**.

The button labeled **Search Results** will be discussed when you have found out how to **Tempo Search** (page 123).

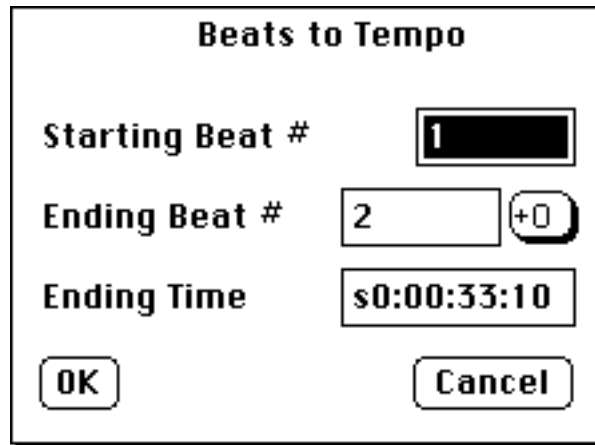
Tempo Tap

If you have a musical segment completed that feels right, and need to determine it's **Tempo** without using a stop watch, you can use the **Tempo Tap** in the **Set Tempo** dialog box for that purpose. Clicking once on the button labeled **Tempo Tap** will activate this feature.

Using the mouse or any key, tap out 17 beats at the tempo you have in mind. After the 17th beat, **CUE** will beep and display the exact tempo you have tapped out. The results of your **Tempo Tap** will be displayed in Film Clicks, SMPTE Clicks or Beats per Minute depending on what you have chosen in the **Set Formats** dialog box. If you want to see how that **Tempo** works with the cue points in your **Cue Sheet**, click on **OK** (or hit the **Enter** key) to enter this tempo, and **Exit** to make the dialog box disappear. The results of your new tempo will be calculated and displayed in the right hand column of your **Cue Sheet** window.

Calc Tempo From Beats and Time

Another useful feature in the **Set Tempo** dialog box can be accessed by clicking on the button labeled: **Calc Tempo from Beats and Time**. When you do this, a smaller dialog box will appear inside **Set Tempo**. It has fields for the **Starting Beat**, **Ending Beat** (with increments button) and **Ending Time**.



The image shows a dialog box titled "Beats to Tempo". It has three input fields: "Starting Beat #" with the value "1", "Ending Beat #" with the value "2" and a "+0" button to its right, and "Ending Time" with the value "s0:00:33:10". At the bottom are "OK" and "Cancel" buttons.

Here are two examples of the way this feature can be used:

When your **Tempo** is not catching an important cue point on a beat, and you are not interested in hitting any points before that, place the beat number that begins the section you are working on into the box marked **Starting Click**. Then round off the beat number that won't fit and put it in as the **Ending Click**. Make the **Ending Time** the time of that cue point, and click on **OK**. **CUE** will calculate a **Tempo** that comes closest to landing that specific cue point on the desired beat.

If you have a finished musical piece (a complete song for instance) that needs to be shoe-horned into a specific scene; count the number of beats the song takes. Let us assume that the first beat of our **Cue Sheet** is where the song starts. By entering the **Starting Click** as **1**, the number of beats you counted (plus 1) as the **Ending Click**, and the time of the scene as your **Ending Time**, **CUE** will calculate the **Tempo** that comes closest to make your music fit perfectly into the available space. Remember to enter the time as **Absolute** or **Relative**, depending on the **Enter Abs/Rel Time** setting (**Command-A**).

Your ending beat number need not come in whole number increments. Clicking on the right hand button next to the **Ending Beat #** box, will give you a choice of 16th note through dotted 8th note in addition to the **Ending beat #** you select.

In the case of both examples, click on **OK** (or hit the **Enter** key) and you will be returned to the **Set Tempo** dialog box where you will see this **Tempo, Starting** and **Ending Clicks** displayed. You can always change the start and end information at any time. When your selection is complete, click on **OK** (or hit **Enter**) and this **Tempo** will be entered. **Exit** returns you to the **Cue Sheet**.

While the two examples given here begin with the first beat of the cue, you can actually select a range of cues from within your **Cue Sheet** and transfer them to the **Set Tempo** window. While in your **Cue Sheet** window, hold down the **Shift** Key, and select the range of cue points you want with the mouse. The **Starting** and **Ending beat #**, as well as **Ending Time** of the highlighted range will be transferred to the **Set Tempo** window if you select it at this point.

Note: If you are working in film frames, **Calc Tempo from Beats and Time** will go for the greatest degree of accuracy and use **CUE**'s ability to show this format in 80ths of a frame. Should your sync source only go to eighths, then you should round off.

Tempo Pop-Up Menu

If you scroll to any place in the **Cue Sheet** where a change in **Tempo** is displayed and click on that tempo change, a pop up menu will appear that allows you to make a number of tempo decisions without having to go back to **Set Tempo**.



Inc (Increment) **Tempo** and **Dec** (Decrement) **Tempo** are very straightforward. Selecting either one of them and releasing the mouse button, will change the **Tempo** by one step in whichever direction you select. This change will immediately appear on your **Cue Sheet**.

Several options are included to change the degree of resolution for your **Tempo** select. In **Frames per Beat**, your tempo will be incremented or decremented by 1/8ths. Hold down the **Option** key to increment/decrement the tempo by

1/80ths. When you are in **Beats per Minute**, your tempo will be increased or decreased by whole beats. Holding down the **Option** key will produce a resolution of 1/10ths of a beat. For 100ths of a beat resolution, hold down the **Shift/Option** keys.

Inc (Increment) **Beat** and **Dec** (Decrement) **Beat** will change the beat number that the **Tempo** change you have clicked on occurs at. You can make these one increment/decrement at a time adjustments until that particular **Tempo** bumps up against a subsequent or previous **Tempo** change. Both **Inc Beat** and **Dec Beat** will recalculate the click of all following cue points.


Move Block Up and **Move Block Down** will let you move an entire block of **Tempo** changes. When you select either **Up** or **Down**, a little dialog box appears that gives you the opportunity to select how many beats you want this particular block moved. This procedure will affect the tempos that follow the one you are moving. If you move a particular block up or down three beats, every subsequent block of **Tempo** changes will also show as being moved by three beats. Thus, if you don't want to change what beat the previous or following **Tempo** blocks start at, you should use **Inc Beat** and **Dec Beat** instead.

Searching for Tempos

It is a good idea to have an approximate **Tempo** in mind before you select **Search Tempos** from the **Operations** menu. Although **CUE** will allow you to search a wide array of tempos at a given time, it is not unlimited. Also, by searching too wide an array of tempos, you may present yourself with an overwhelming number of options. When you first call up **Search Tempos**, it will look like this:

Search Tempos (24 Frm.)

- to -

To Closest  Search Cuts

MARGIN: -. to +. Max Hits: 12

OFFSETS: -
 +

start # Step

tempo: hits:	tempo: hits:	tempo: hits:

Once Around the Park With Search

At the top of the **Search Tempos** dialog box, the **Tempo Format** is listed: (24 Frame, 24 Frame fractional, 25 Frame, 29.97 Frame, 30 Frame, B.P.M.). Make sure that it matches the **Tempo Format** you want to search in. If it doesn't match, then select the appropriate **Tempo Format** from the **Set Tempo Formats** window in the **Operations** menu.

The first series of boxes underneath the **Search Tempos** title are fields where you enter the range of tempos for your search. A default range of tempos will come up when you first select **Search Tempos**. After that, the range of the most recent **Search** you did will be displayed anytime you return to this dialog box.

Below the entry fields is a button marked **To Closest**, that runs through a series of note value choices allowing you to search to the closest quarter note, eighth note, eighth note triplet or sixteenth note, depending on how many times you click on it.

Directly beneath this are two small text boxes labeled **Margin** that let you custom design the margin for error that **Cue** will deem acceptable when it **Tempo Searches**.

Under that are fields for entering the range of **Offsets** that you want searched along with each **Tempo**.

Part way down on the right is a number labeled **Max Hit's**. This tells you how many cue points were marked as **Key Hit's**. These are the only points that will be included in the standard search.

Just above **Max Hit's**, is a check box labeled **Search Cuts**. When this is clicked "on", **CUE** will do a non-standard search where it looks for **Tempos** that will best hit only the cue points which take place on **Cuts**.

The space at the bottom part of the screen is provided to show the results of any search that you do. It will hold up to 36 different **Tempos**.

Using Search Tempos

To help matters along with our sample cue **Zarkov/1m2**, let us say that our **Tempo Tap** came out to be **9-5**. A reasonable search range might be **9-0** to

11-0. Enter these numbers in the appropriate boxes and then click on the button labeled **Search** (or hit the **Enter** key). If you enter a range of **Tempos** too large to fit in the display box, **CUE** will beep and select the second **Tempo** field. Reducing the search range will permit you to continue.

Once your search margin has been pared down to include 36 or less **Tempos**, hit the **Search** button and you will see this range of tempos displayed with three rows of number numbers to the right of each **Tempo**. The first column in bold type shows the number of key hit's each **Tempo** is hitting. Since two frames is considered to be the amount of time within which the average human eye is incapable of noticing a discrepancy, two frames in either direction of the cue point is the default setting for **CUE**. (We will explain how to fine tune this parameter in a little while, but for the moment let's decide that any cue point within this plus/minus two frame margin is considered to be hit).

The second column in plain text shows the number of hit's that fall just outside the established hit margin. This is useful to know because computers are so darn literal. If a cue point is even one film frame away from being hit, the computer considers this a failure. By looking at the second column you can see how many hit's are just a film frame away from being included as bona fide hit's. This gives you a little more information to help you decide whether you can work with a given **Tempo** or not.

The third column in the gray text shows you how many of your **Key Hit's** are definitely outside the range of the hit margin.

Search Tempos (24 Frm.)

9 - 0 to 11 - 0

To Closest
 Search Cuts

MARGIN: -. 08 to +. 08
Max Hits: 12

OFFSETS: - +
 0.00
0
0.00

start
#
Step

tempo:	hits:	tempo:	hits:	tempo:	hits:
9-0	9 0 3	10-4	2 2 8		
9-1	6 0 6	10-5	5 0 7		
9-2	3 1 8	10-6	5 0 7		
9-3	5 3 4	10-7	3 1 8		
9-4	7 0 5	11-0	4 0 8		
9-5	5 0 7				
9-6	3 3 6				
9-7	2 3 7				
10-0	5 3 4				
10-1	5 0 7				
10-2	8 1 3				
10-3	5 4 3				

Hits and Misses (The Zoom Feature)

9-0 and **10-2** look promising because they are respectively hitting 9 and 8 out of 12 **Key Hit** points within two frames of the nearest 1/4 note (check the second column, and you will see that **10-2** is hitting a ninth cue point within one frame). To take a closer look at which points are being hit, it is not necessary to enter this **Tempo** into the **Cue Sheet**. By clicking on a **Tempo** in the **Results Box**, we engage a "zoom" function which shows us the details we need. Let's zoom on the **9-0 Tempo** first.

Hit/Near/Miss Tempo: 9-0 (24 frm.)			
2.97	A bright la...	8.91	1:05.33 Ergon and h... 175.21
4.00	The brain bl...	11.66	1:09.17 Valley CUE t... 185.45
15.43	The light s...	42.14	
20.23	Morg speaks...	54.93	
35.97	Morg peels ...	96.91	
46.17	A CRACKING-...	124.12	
48.33	C.U. of the...	129.87	
50.47	We begin th...	137.58	
57.00	With an inc...	153.00	
1:01.47	Emerging fr...	164.91	

This zoom is showing us the time, an abbreviated description, and the beat to the nearest hundredth of each **Key Hit**. Any **Key Hit** that this particular **Tempo** is hitting within two frames is shown in **bold**, any hit within one film frame of being hit is shown in plain text, and any hit that is really off is shown in gray type.

You will also have noticed by now that **CUE** has started to play a click as soon as you engaged the zoom function. This click is the **Tempo** you have zoomed in on. It is provided so you can determine differences in click rates without having to leave the dialog box. In order to turn the click off, hit the letter "O" in either upper or lower case. If you hear no click, hit the letter "O", and click once on the zoom box to return to the **Search Tempos** display and then click on the **Tempo** whose click you would like to hear. This time when you zoom in on that particular **Tempo**, you will hear the click unless you have the sound for the whole computer turned off in the **Control Panel** under the apple menu.

If there are more than 20 **Key Hit's**, you can examine them by clicking anywhere on the zoom box. Each click will show you 20 more **Key Hit's**. When you have reached the end of the **Key Hit's** listing or if there are less than 20 **Key Hit's**, clicking on the zoom box will return you to the **Search Tempos** display.

Since the other promising looking **Tempo** is **10-2**, let's click on it .

Hit/Near/Miss Tempo: 10-2 (24 frm.)			
2.97	A bright la...	7.95	1:05.33 Ergon and h...
4.00	The bean bl...	34.36	1:09.17 \They CUT t...
15.43	The light s...	37.12	
18.23	Phry speak...	41.36	
35.97	Morg peels ...	85.21	
46.17	A CRACKING-...	109.10	
48.33	C.U. of the...	114.15	
50.47	We begin to...	119.17	
57.00	With an inc...	134.43	
1:01.47	Emerging fr...	144.92	

Some of the timings that are not caught by the nearest 1/4 note are very close to being at .5 of a beat, which is the eighth note. To make sure and see how the other **Tempos** work out, click on the 1/8 note button, and then click on **Search**, so that **CUE** will search to see how many of the **Key Hit's** fall on an eighth note.

Search Tempos (24 Frm.)

9 - 0 to 11 - 0

To Closest
 Search Cuts

MARGIN: -. 08 to +. 08
Max Hits: 12

OFFSETS: - +
 0.00
0
0.00

start
#
Step

tempo:	hits:	tempo:	hits:	tempo:	hits:
9-0	12 0 0	10-4	7 3 2		
9-1	11 1 0	10-5	6 3 3		
9-2	11 1 0	10-6	9 1 2		
9-3	8 4 0	10-7	10 1 1		
9-4	10 2 0	11-0	10 0 2		
9-5	11 0 1				
9-6	7 4 1				
9-7	8 4 0				
10-0	9 3 0				
10-1	10 1 1				
10-2	11 1 0				
10-3	5 5 2				

We now have some decisions to make. The **9-0 Tempo** is hitting all 12 **Key Hit's**, and a couple of our tempos are now hitting all 12 if we can work with the near misses. Which one is better?

This is where musical choices start to come in. Are there some cue points you would like to hit on the 1/4 note? Each one of our choices differs in this respect. If you don't care about that particularly, then are you satisfied to go with a **Tempo** that is slower (**10-2**) than the original **9-5** we **Tempo Tapped**?

If hitting the nearest eighth note is all right and you are really interested in getting as close to **9-5** as possible, notice that our beloved **9-5** is hitting 11 out of 12 **Key Hit's**. By zooming on **9-5**, and examining this **Tempo**, you may feel that the one **Key Hit** that is not being hit is no big deal. You could write something that has slow-speaking instruments like basses catching this point. Or it may not be as important as you thought it was when you first entered the cue.

You are on your own with these choices. Each cue will be different. Not all may offer as many ways to go as this particular sample does. The main point is that **CUE** lets you spend your time making these creative decisions instead of laboring over the math involved.

What has been covered so far provides a basic overview of **Tempo Search** that may give you sufficient tools for your needs. Be aware however, that there are further refinements available to you if you want to get involved with them. They are:

- 1- Dividing your **Tempo** into smaller increments to give yourself more choices within a given range.
- 2- Modifying the margin within which **CUE** considers a cue point to be successfully hit.
- 3- Retiming your click track so that it still feels like one **Tempo** but speeds up or slows down to catch certain **Key Hit's** that your **Tempo** of choice is not hitting.
- 4- **Search Offsets** to determine the proper start of your cue which will hit the greatest quantity of cue points.

Details on these follow starting on page 131 but for those anxious to get on with it let's proceed to actually place a **Tempo** into your **Cue Sheet**.

Entering the Result of Your Tempo Search

When you have chosen the **Tempo** you wish to enter into the **Cue Sheet**, make sure that this **Tempo** is the last one you have zoomed on before clicking **Done**. By doing this you ensure that when you select **Set Tempo** from the **Operations** menu, the **Tempo** of choice will be displayed under the dialog box. This saves you the trouble of remembering it or having to scribble this information on a scrap of paper.

To make matters even easier, if you click on the button labeled **Search Results**, you will see the **Tempo** displayed beneath the dialog box is now entered into **Set Tempos**, waiting for you to click on **OK** or hit the **Enter** key.

Set Tempo (24 Frm.)

-
Frames 1/8s

Tap Tempo

Starting at click #

Ending at click #

Search Results:
Tempo 9-5 Offset 0.00 (beat 1.00)

Upping your Tempo Search Precision

Fractional Tempos

The more **Tempo** choices you give **CUE** to search within a given range, the more you up the chance that the maximum number of **Key Hit's** will be nailed with the error margin you have chosen.

30 Frames per Beat @ 30 frames per second gives you the greatest level of detail because it divides each frame into eightieths. But what if you want to work in **Frames per Beat @ 24 frames per second** where each frame is divided into eighths, or **Beats per Minute**?

If you want to work in film frames or beats per minute you do have the ability to up your level of precision:

Click on the **Operations** menu, select **Set Formats**, pick the sub-menu labeled **Tempo Formats** (or type **Command Opt-T**) and under 24 frames per second, you will see that you have the option to click on **fractional tempos**. Clicking on this will divide your frames into eightieths instead of the standard eighths. In the case of **Beats per Minute**, you have the choice of clicking on either **tenths** or **hundredths** of a beat.

To see the effect of this greater range of **Tempo** choices, convert the standard film frames to **fractional tempos** and then return to **Search Tempos** so we can work further with our sample cue.

One of the first differences you will see is that the breadth of your search range is restricted because there are so many **Tempos** within a small range. You will find that the largest range you can enter into the **Search Tempo** dialog box is between three eighths, because each eighth will have ten sub-divisions. Since **9-5** was the **Tempo** we originally tapped let's enter a range of **9-4** to **9-7** and hit **Search**.

In case the scope of your search is so broad that it can't be shown in the display window, **CUE** will list the tempo range in eighths of frames (every ten tempos). As soon as you decrease the search range to the point where it can be displayed in 36 or less **Tempos**, then every **Tempo** in the range will be shown. This range display works works for all tempo formats.

If you set the search to the nearest eighth note you will see that a **9-47** or a **9-48 Tempo** catches all twelve of our **Key Hit's** within two frames. Also notice that the **fractional tempos** that work out to an even eighth will be displayed without a trailing zero.

Honing Your Hit/Miss Margin

Each composer may have their own preference for how they want to hit a cue point with a given musical punctuation.

CUE's default margin for error in its **Tempo Search** is two frames to either side of the cue point, but a standard bit of wisdom is that it is always better to be late than early with a musical sting. Even though two frames is not supposed to be discernable by most people, you may not wish to hit any of your cue points early. To avoid this you can redesign the error margin by using the **Margin** feature of the **Search Tempo** dialog box.

The default setting for the search margin is entered as a minus eight hundredths of a second to a plus eight hundredths of a second. (A frame is approximately .04 seconds.) If you only want **CUE** to search for hit's that fall after a cue point, enter **01** into the minus text box (it won't accept a "**0**" but hopefully less than one hundredth of a second early won't be a problem for you).

In this same manner, if you are comfortable hitting a cue point with music that may be up to three frames late, enter **12** into the plus box and that will extend the range that **CUE** deems an acceptable search margin. You can type a number as high as **99** into either of the two boxes. If you want a number higher than that . . . you probably don't need **CUE** to **Tempo Search** .

Accelerando/Ritard

There are two main purposes for this feature. The first is to create a click track which has an accelerando and/or ritard in it to fit the dramatic needs of your picture. Another is that you have found a **Tempo** that really works well for most of your cue, but there are a few cue points that just won't fall into place. You may feel that these cue points do not fall on a musically convenient beat, and would like to place one or a few of these awkward key-hit's on to specific whole beats. We call this second feature **Key-hit Retiming**, and will discuss it after we have explored the various features of the **Accel./Ritard**. box.

IMPORTANT NOTE: Before we proceed, if you are working with **24 Frames per Second Tempos**, it will be extremely useful to set the **Tempo Formats** dialog box for **fractional tempos**, and if you are working in **Beats per Minute**, you should work in **hundredths of a beat**. While **Cue** will do **Accelerandos** and **Ritards** in standard **frames & eighths** or **Beats per Minute**, the much larger range of **Tempos** you have in **fractional tempos** and **hundredths of a beat** will allow **CUE** to perform it's calculations with significantly greater precision.

The **Accel./Ritard.** dialog box can be called up in two ways. The simplest is to select a cue point which you would like to have fall on the closest whole beat. Click and hold the mouse button down anywhere on your chosen line, and the pop-up menu will show **Accel./Ritard** as one of your choices. Release the mouse button on this selection and your dialog box will open. A slightly faster way of getting to this box is accomplished by holding down the **Option** key when you click the mouse button over your cue point line. The **Accel./Ritard** dialog box will be displayed immediately. Of course, you can also click on the **Operations** menu and select **Accel/Rit**. The following dialog box will appear (we are using **CUE** example: Zarkov/1m2 here):

Accel./Ritard.

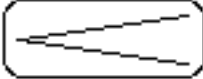
Starting Beat #

Desired
Ending Tempo -

Ending Beat #

Ending Time

Insert High Res



Depending upon how you entered this dialog box, the numbers appearing in the box may vary. We are going to take a look at each of these entry items, replacing each with the desired information. As you read the following sections you will

find that the numbers **CUE** has entered for you, will complete your **Key Hit Retiming** with a minimum of key strokes.

Starting Beats/Ending Beats

The first task in creating an **Accelerando/Ritard** for your cue, is to define the start and stop time you want. This is done by placing the beat or click # you wish to begin at into the box labeled **Starting Beat #**, and then typing the time of the cue point you wish your **Accelerando/Ritard** to end at into the text box marked **Ending Time**.

There is a second way to define the **Accelerando/Ritard** start and stop: Before you enter the **Accelerando/Ritard** dialog, you can hold down the **Shift** key and click on the cue point you want to become the starting point for the **Accelerando/Ritard**. As you do so, this cue point will become highlighted. Then scroll to the cue point that is to be the stopping point for the **Accelerando/Ritard**, and click on this cue point while holding down the **Shift** key. Now the entire range of cue points between the two that you have clicked on will be highlighted. When you call up the **Accelerando/Ritard** dialog box after doing this you will see that the cue points listed in the **Starting Beat #** and **Ending Time** boxes are the same ones you chose in the **Cue Sheet**.

Desired Ending Tempo and Ending Click

Desired Ending Tempo and **Ending Beat #** give you a creative choice. Notice that if you click on one of them the button of the other one will no longer be highlighted. You can specify the **Tempo** you want your **Accelerando/Ritard** to speed up or slow down to, or you can indicate what **Click #** you want your **Accelerando/Ritard** to stop at.

Desired Ending Tempo is pretty straight forward. The more the **Ending Tempo** you entered varies from the starting **Tempo**, the more your click track will speed up or slow down to reach the **Ending Time**. **CUE** will end the **Accelerando** or **Ritard** at the **Tempo** closest to the **Desired Ending Tempo** which catches the ending time on a whole beat. **CUE** will remain at that tempo until another tempo indication is inserted.

Ending Beat works in a similar way, but fitting the desired number of beats into the time specified. The more the **Ending Beat #** you enter varies from the **Click** that a constant **Tempo** would have reached by the **Ending Time** shown in this dialog box, the more drastic the **Accelerando** or **Ritard** will be. In this case, the **Ending Tempo** will be the one that comes closest to hitting the **Ending Beat #** you specified.

There is a button to the right of the **Ending Beat #** entry box that allows you to cycle through a series of different note values:



Clicking on a note value other than "+0" will add that note value to the ending beat thus allowing you to end your **Accelerando/Ritard** on something other than a whole beat. For example: if the **Ending Beat #** is 55 and you have clicked the note value box to show and eighth note, then the destination of the **Accelerando/Ritard** is beat 55 and a half.

Insert Check Box

When this box is checked, it will cause the beat after the end of the **Accelerando/Ritard** to revert to the **Tempo** that was originally active at that point in the cue.

High Resolution

If you want **CUE** to calculate **Tempos** at the highest possible rate of resolution, you can activate the **High Res** button which will give you a resolution of 65,536ths of a frame or beat. Be careful- there are two potential areas of concern when using **High Res**:

One is that 65,536ths is a much higher rate of resolution than what the **Cue Sheet** can display, and so consequently, if one of these **Tempos** is re-entered in the **Set Tempos** dialog box, it may not exactly match the **High Res** tempo originally calculated by the **Accelerando/Ritard** routine. Of course, a few minor tempo fluctuations this small won't affect the overall cue.

The other way that using **High Res** can trip you up, is that you have a maximum of 400 different tempo changes in any given **Cue Sheet**. Since the **High Res**

mode will probably be making a tempo change on every beat, this would mean that at a 1/2 second click rate (120 BPM) you would be out of tempo changes by the time your cue was three and a third minutes long if you are doing **Accelerando/Ritards** from the beginning of the cue. When you are working on longer cues, use the **High Res** mode judiciously and you should be in good shape.

Scrolling the Cue Sheet Behind the Dialog Box

If you want to scroll the **Cue Sheet** behind this dialog box you can do so by hitting the up/down arrow keys.

Key Hit Retiming:

Key Hit Retiming is designed to place a particular cue point on a whole beat in as few keystrokes as possible. It is accomplished by clicking on the cue point you wish to see in the **Accel.Ritard** dialog box and selecting **Accel/Rit** when the pop up menu appears. Explaining **Key Hit Retiming** will be easiest if we work with our sample cue **Zarkov/1m2**. We are working with **Relative Time**, and a starting film-based click tempo of 10-3. To gain extra resolution, we have also chosen a click tempo accuracy of 1/80th.

The first **Key Hit** timing point that we will address appears at **15.42 seconds (Relative Time)**. Even though it falls on **36.66** beats into the cue, which is just fine for writing to the nearest eighth note, let's decide that we really need to have this on the beat.

To start **Key Hit Retiming**, hold down the **Option** key and click on this cue point text line. The dialog box will open looking like this:

Accel./Ritard.

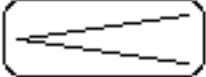
Starting Beat #

Desired Ending Tempo -

Ending Beat #

Ending Time

Insert High Res



Notice that **CUE** has automatically filled in all the text boxes for you. If for any reason you wish to amend any of the entries, you may do so without hurting **CUE**'s feelings. The **Starting Click #** is **2**, because **CUE** always adds one beat to the previous **Accel/Ritard** operation. Even though this is not the case at the beginning of the cue, **CUE** goes ahead and adds one beat anyway to preserve your starting **Tempo**. You can change this if you wish, although it is not necessary.

The **Tempo** displayed is the one that was part of your **Cue Sheet** when you first loaded the file into **CUE**. If it is not displaying a **10-3 Tempo**, go ahead and enter **10-3** for purposes of staying together in this example. Notice that the **Ending Click** has been rounded off to the nearest whole beat. Again, if that does not conform to your needs, you can type in your own number. It is important to note that you should have the **Tempo** page of the **Set Format** dialog box set for **fractional tempos** if you are working in **24 Frame per Second Tempos**.

At this point, you need only click on **OK**, and **CUE** will calculate the necessary **Accel./Ritard**, entering the proper changes of tempo into your **Cue Sheet**, and **NOW** placing your cue point at 15.42 right on as close to beat 37 as possible. Chances are, if your sample cue has not been altered for other operations, you

needed to make only one click in the **Accel./Ritard** dialog box- the **OK**. Pretty Nifty.

5.62	ACCEL...	14.00
7.17	At the base of the "haystack" there is a stirring of movement	17.60
8.21	CUT Medium close-up of Morg whose sleep has been awakened by the beam of light	20.02
15.00	(THE TEMPO CHANGES TO 10-06 ON THIS CLICK)	36.00
15.42 ✓	The light sweeps by again	36.99

For those who have never had access to it before, **Key Hit Retiming** will feel like a luxury. It is a process whereby you speed up and slow down the click track ever so gradually to make your key hit's fall on quarter notes. The whole essence of **Key Hit Retiming** is to make subtle **Tempo** changes that will not throw off the musicians following your click track. If they can easily play to the shifting **Tempo** without being disturbed, chances are that the viewing public will not even notice the compensations you are making.

The extent to which you use **Key Hit Retiming** must be up to each individual, but there are some definite constraints you should consider. If you ask **CUE** to pull a very large discrepancy into line within a small number of beats, there is just no physical way that it can be accomplished without a comparatively radical **Tempo** shift. Also, when using Ending Beat # to determine your accelerando or ritard, you may end up with a tempo significantly different from the one you started with. You can, of course, check the Insert box which will restore the tempo which was originally set for your ending cue point, but this could be dangerous.

It is also useful to remember that if you are satisfied with certain **Key Hit's** which fall within the part of your cue that you are **Key Hit Retiming**, they will probably end up at a slightly different click point as a result of the gradual **Accelerando** or **Ritard** which you have programmed to take place around them. This could make your hit's more even more accurate, but it also might drag them in the wrong direction.

Accelerando/Ritard timing points can be in **Absolute** or **Relative Time Format**, according to what you set for your **Input** window of the **Cue Sheet (Command-A)**. Scroll your **Cue Sheet** to the right so that you can see the

timing column closest to the description and the column that lists the clicks to the right. You might want to use the **split** feature to see your far left and far right columns if necessary (**Command Opt-S**).

There are several more options available to you for **Key-Hit Retiming**, if you wish to use them. **Desired Ending Tempo** or **Ending Click #** can be checked the dialog window before clicking on **OK**. If you do not wish to proceed with this calculation you can always click on the **Cancel** button and the dialog box will disappear without making any changes in the **Cue Sheet**. Should you have clicked on **OK** by mistake or wish for any reason to **Undo** the most recent **Accelerando/Ritard** that has gone into the **Cue Sheet**, hitting **Command-Z** will **Undo** the last **Accelerando/Ritard** which you entered.

After you have clicked on **OK**, you will be returned to the **Cue Sheet**. If you scroll to the top of the **Cue Sheet**, you can see that the word **Ritard** or **Accel.** has appeared at the point where we asked the program to begin **Key Hit Retiming**. At the end of the **Retimed** portion, **CUE** displays the final **Tempo** reached by this particular **Key Hit Retiming**.

If you want to behold all the gyrations **CUE** goes through to achieve a **Key Hit Retiming**, you can go to **Cue Sheet Formats** in the **Set Formats** menu and click on **All Tempos** under **Accel/Ritard Display**. When you do this and click on **OK**, you can see that there are places where **CUE** is recalculating the **Tempo** on virtually every beat. Unless you want an extremely long **Cue Sheet**, you should probably go back to **Cue Sheet Formats** and click on **Beginning and End Only**.

You can use **Key Hit Retiming** to bring several cue points onto whole beats. **CUE** will begin the accelerando or ritard for each successive cue point after the one it has just completed. Check the **Starting Beat #** box to be sure.

If you want to come even closer to an exact beat using **Ending Tempo**, check the **High Res** box. When you return to the **Cue Sheet** you will see that the ending click number is much closer to the beat you wanted to hit.

It should be possible with **Tempo Search** and **Accelerando/Ritard** to create a click track that will work for you, but what happens if nothing close to the **Tempo** you want hit's enough of the cue points and you absolutely want a rock steady click track that has no **Accelerandos** or **Ritards** in it?

This is where **Offsets** come in.

Setting Offsets

Slipping Your Cue

You may run into times when no tempo close to the one you want will catch enough of the **Key Hit's** in a scene. One possible way out of this bind is to use **Search Tempos** for a tempo that will work if you offset your cue a little bit earlier or later than the start point you planned. In many cases, a few frames in one direction or another will make little difference to anyone but the composer.

Searching for an Offset

Let's say that you like a **9-5** click and nothing else will do. Our previous **Tempo Search** showed that a **9-5** was hitting only five of our twelve **Key Hit's** on the nearest 1/4 note. Although searching to the nearest 1/8th note indicated that 11 out of the 12 **Key Hit's** were being caught, we would like to do better.

Remember: the **Offsets** you **Search** will be displayed in the current **Relative Time Format**. Make sure your **Set Formats** dialog box is set up to your liking.

We start by clicking on **Search Tempos** in the **Operations** menu. Even though we only want an **9-5** click, let's search **Offsets** in a range of **Tempos** from **9-4** to **9-6**. If there was a wonderful solution to our problem just one click to either side of **9-5**, we might be willing to compromise.

Next, we need to define the range of **Offsets** to search. To the right of the word **Offsets** are three boxes marked **start**, **#**, and **step**.

Start is where we enter the beginning point of our search. The search can begin before zero by clicking on the minus button. Moving forward with our example, click on the minus button and enter /5 as our start point. This means that **CUE** will search **Offsets** starting at -5 film frames.

By entering a number in the box labeled **#**, we determine how many different **Offsets** will be searched in each **Tempo**. Enter the number **10**.

The last item to define is the increment between each **Offset** in our search. Enter /1 (one frame) in the box marked **step**. **CUE** searches in a consecutive manner, so it will now start at minus five frames and search ten different **Offsets** one frame at a time. This means -5,-4,-3,-2,-1,0,+1,+2,+3 and +4 frames. If the **step**

were set for /2 (two frames), then the search would cover -5,-3,-1,+1,+3,+5,+7,+9,+11 and +13 frames.

You can enter information into the **start** and **step** boxes in any of the valid time formats including measures and/or beats. We have chosen film frames for the current example. Once you have set the three boxes and chosen the note value resolution, the **Search** Button can be clicked (or the **Enter** key hit).

Should you make an error entering any data, the Macintosh will beep and select the field where the error occurred. If you asked for more **Tempos** and **Offsets** than can be displayed at one time, the Mac will beep and select the second tempo field. Asking for fewer **Tempos** in the search will alleviate this error, as would asking for fewer **Offsets** to be displayed.

Since asking for a great number of **Offsets** can exceed the size of our display box very quickly, you will be only be able to display the **Offsets** for a somewhat narrowed range of **Tempos**. If you want to examine a large range of **Tempos**, then place the plus or minus **Offset** you would like to search into the box labeled **start**, put "0" in the # and **Step** boxes and click on **Search** (or hit the **Enter** key). By backspacing, entering another **start** point, and hitting the **Enter** key again, you can move through a series of single **Offsets** per **Tempo** quite efficiently.

Let's make our first **Offset** search to the nearest 1/4 note:

Search Tempos (24 Frm.)

9 - 4 to 9 - 6

To Closest
 Search Cuts

MARGIN: -. 08 to +. 08
Max Hits: 12

OFFSETS: - 0/5
 + 10
0/1

start
#
Step

tempo:	hits:	tempo:	hits:	tempo:	hits:
9-4		-0/5	5 2 3	-0/4	2 2 3
-0/5	4 0 3	-0/4	6 0 3	-0/3	5 0 3
-0/4	4 0 3	-0/3	3 3 3	-0/2	6 0 3
-0/3	5 0 3	-0/2	4 0 3	-0/1	5 0 3
-0/2	5 1 3	-0/1	3 3 3	0/0	3 3 3
-0/1	7 1 3	0/0	5 0 3	0/1	4 3 3
0/0	7 0 3	0/1	4 1 3	0/2	5 2 3
0/1	7 1 3	0/2	4 2 3	0/3	5 0 3
0/2	5 2 3	0/3	7 1 3	0/4	5 2 3
0/3	4 2 3	0/4	6 0 3		
0/4	4 0 3	9-6			
9-5		-0/5	5 1 3		

We are making progress. There are several **Offsets** catching seven of the **Key Hit's** within two frames.

Now set **CUE** to search to the closest eighth note by clicking on the **To Closest** button until the eighth note symbol comes up. Click on search and you should see something like this:

tempo:	hits:	tempo:	hits:	tempo:	hits:
9-4		-0/5	10 2 3	-0/4	6 5 3
-0/5	11 1 3	-0/4	11 0 3	-0/3	10 2 3
-0/4	10 2 3	-0/3	6 5 3	-0/2	11 1 3
-0/3	12 0 3	-0/2	11 1 3	-0/1	11 0 3
-0/2	10 2 3	-0/1	9 3 3	0/0	7 4 3
-0/1	10 2 3	0/0	11 0 3	0/1	6 5 3
0/0	10 2 3	0/1	9 2 3	0/2	10 2 3
0/1	11 1 3	0/2	7 4 3	0/3	11 0 3
0/2	8 4 3	0/3	11 1 3	0/4	10 2 3
0/3	9 3 3	0/4	10 1 3		
0/4	12 0 3	9-6			
9-5		-0/5	10 1 3		

We are looking good. The +4 frame **Offset** at a 9-4 **Tempo** is catching all 12 **Key Hit's** within an 1/8th note. A zoom on +4 frames at 9-4 shows the following:

Hit/Near/Miss Tempo: 9-4 (24 frm.) Offset: 0/4			
4/3	A bright la...	8.07	97/12 Ergon and h... 165.60
5/12	The beam bl...	10.67	103/8 \They CUT t... 175.31
22/14	The light s...	39.54	
30/1	Morg speaks...	51.67	
53/11	Morg peels ...	91.43	
69/0	A CRACKING-...	117.20	
72/4	C.U. of the...	122.67	
75/7	We begin to...	128.07	
85/4	With an inc...	144.57	
91/15	Emerging fr...	155.85	

Whichever one you choose, make sure it is the last one you zoom on before clicking on **Exit**, in order to ensure that **CUE** will show you the choice you made when you go to enter it in the **Set Offset** dialog box.

A Helpful Hint

Being able to enter an **Offset** of measures and/or beats can be helpful if you are trying to change tempo in the middle of a cue. Lets use the example of an 11-5 starting tempo in a cue that catches all the major cue points up through bar 23, beat 4. Now you want an imperceptible tempo change to catch the rest of your important cue points. You might search the **Tempos** 11-4 to 11-6 with an **Offset** of m23b4 (measure 23 beat 4). Only the hit's that come on or after bar 23 beat 4 will now be included in the search. The **Max Hit's** number will also reflect the number of hit's in the specific part of the cue you are searching. The bar and beat format takes into account any earlier tempo and meter changes you have already placed into the **Cue Sheet**, so if you find a new tempo for this next section of the cue, it can be entered with the knowledge that it will work with what you have previously set.

Entering the Offset You Have Searched For

As with the **Set Tempo** dialog box, the **Set Offset** dialog box will display the **Search Results** of your last zoom in a box beneath it:

Set Offset

- +

SMPTE bits(0-79) - +

Permanent Anchor Tempos

Search Results:

Tempo 9-4 Offset 0/4 (beat 1.38)

Clicking either the "+" or "-" button, entering the Search Results in the upper box, and clicking on **OK** (or hitting the **Enter** key) will place your **Offset** into the **Cue Sheet**.

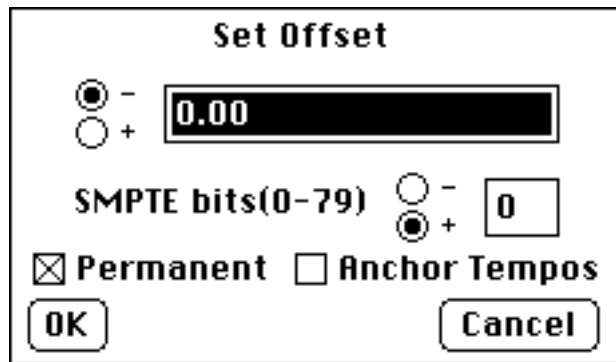
Underneath the box for entering the **Offset**, you will see a place for entering **SMPTE bit's**. This relates to a similar offset procedure you can perform in the **Playback** window. Entering a plus or minus **SMPTE bit's Offset** here will not affect the actual calculations set in your **Cue Sheet**, but is provided to deal with a situation where a minute adjustment of under a single SMPTE frame would perfectly align the music to the picture on **Playback**. Click on either plus or minus and enter a number up to **79** bit's in the box provided. Once again, clicking on **OK** or hitting the **Enter** key will engage this adjustment.

In the center of the **Set Offset** box you will find the check box marked **Permanent**. When this is checked, the start time and all cue points will be permanently recalculated, and all memory of the offset will be gone forever. **Permanent Offset** is most useful when someone forgets to enter a **Running Time** before they begin entering cue points. (See page 20)

If you want to examine various choices of **Offsets**, you can do so by entering a different **Offset** on each **Version** of the **Cue Sheet**. Do not make your **Offsets** permanent if you want to see a different result on each **Cue Sheet**.

Anchor Tempos

If you check the "-" button and the **Permanent** button, the **Anchor Tempos** checkbox becomes active.



When you check the **Anchor Tempos** check box, and enter your **Offset** in measures and/or beats, you will add that many measures and beats to the start of your cue, *up to* your first tempo change. From there your cue will remain intact. Thus, if you calculated your tempos and then moved your music start three beats earlier (for example) than it's original starting point, **CUE** will add those three beats *up to* the first tempo change in your cue. Without **Anchor Tempos**, **CUE** would normally move all of your tempo changes 3 beats earlier, and that would throw off your hit's. This is especially true for hit's caught with a lot of tempo changes calculated for their original points. **Anchor Tempos** will add the **Offset** beats in so that the original tempo changes are all happening at the same **Absolute Time** that they did before you put in the **Offset**.

If you check **Anchor Tempos** but enter the **Offset** in some other format than measure/beats, **CUE** will beep and select the **Offset** text window when you hit **OK**.

Adjusting Running Time

Since you have decided to start your cue later or earlier than the original start point, you have effectively changed the **Running Time** by the amount of your

Offset. CUE will automatically adjust your **Running Time** to reflect this **Offset**, without changing the absolute times of individual cue points.

Setting the Meter

Set Meter allows you to insert up to two hundred meter changes into your cue. You access the **Set Meter** feature by selecting it from the **Operations** menu, or by typing **Command-M**.

The screenshot shows the 'Set Meter' dialog box. At the top, the title 'Set Meter' is centered. Below it, the 'Beats per Bar' field contains the number '4'. To the right of this field is a display showing '4' over '4'. Below the 'Beats per Bar' field is a horizontal line, and below that are four radio buttons labeled 'Units' with values 2, 4, 8, and 16. The radio button for '4' is selected. To the right of the radio buttons is a display showing '4' over '4'. Below the radio buttons is an 'insert' checkbox, which is unchecked. To the right of the 'insert' checkbox is a 'Starting at bar #' field containing the number '1'. Below the 'insert' checkbox are two buttons: 'Previous Meter' and 'Next Meter'. Below the 'Starting at bar #' field are two radio buttons labeled 'Clicks per Beat' with values 1 and 2, and an 'Accents Only' checkbox, which is unchecked. Below the 'Clicks per Beat' radio buttons is the text 'Accents: > x x x x'. At the bottom of the dialog are three buttons: 'OK', 'Undo Last', and 'Exit'.

This dialog box has a field for entering the number of **Beats per Bar**, four **Unit's** buttons for selecting the value of a beat, a display that shows the **Meter** you are setting and a field entitled **Starting at bar #** to show where the meter change occurs. You can enter multiple meter changes by clicking on **OK** (or hitting the **Enter** key) after changing the necessary information. Other features in this dialog box include an **insert** option and an **Undo Last** button, the ability to customize your **Accents**, and set the **Clicks per Beat**.

Unless you are using the **insert** option, the last **meter** entered becomes the **meter** for the rest of the cue and will remove any meter changes you have entered after this point, so meter changes should be entered in the order they occur. If you want to clear the whole cue in one particular meter, enter a **meter** at bar 1, and any other **meters** you may have set will disappear.

If you want to select a beat value without using the mouse you can do so by holding down the **Option** key while you hit the appropriate number. **Option 2**, **Option 4**, **Option 8** and **Option 6** set the **Unit** buttons for 1/2, 1/4, 1/8th and 1/16th notes respectively.

To facilitate entering several meter changes in the cue, the **Set Meter** dialog box

will remain visible until you click on the **Done** button. This will return you to the **Cue Sheet** where you will see each meter change displayed in bold lettering.

10.50	DIAL: "MORG, BRING ME THE CHEST."	6- 1.56
	METER CHANGE: $\frac{2}{4}$	7- 1.00
13.25 ✓	DIAL: "THE CHEST?"	7- 2.95
	METER CHANGE: $\frac{4}{4}$	8- 1.00
14.71	CU of Zarkov as he looks over at Morg. DIAL: "I KNOW YOU ARE ITS KEEPER. BRING IT TO ME NOW AND ALL WILL BE WELL."	8- 3.82

The Insert Button

If you want to change the meter of one particular bar, you can do so by entering the meter you wish to have in exactly the same manner as indicated above and clicking on **insert**. (Holding down the **Option** key while hitting "x" will also turn **insert** on or off). Whichever bar number you now place in the text box next to **Starting at Bar #** will be the only bar number where that particular meter will appear in the **Cue Sheet**. The next bar will revert to whatever meter was originally active at that point and any other following meters will also remain unchanged.

In our last example, a $\frac{2}{4}$ bar was placed at bar 7 so that the **Key Hit** at 13.25 seconds would fall on a downbeat. The meter then returned to $\frac{4}{4}$ on the next measure.

Undo Last

Once you have entered a meter change, the **Undo Last** button will become active. Clicking on it will **Undo** the last meter change that you entered. This is very different from using the **Undo** command in the **File** menu (or typing **Command-z**) which will **Undo** all of the meter changes you made since you last entered the **Set Meter** dialog box.

Changing Clicks per Beat

If you are setting a **Meter** that is either eighths or sixteenths you can have the audible click that **CUE** generates follow along by clicking on the appropriate **Clicks per Beat**. As you change the **Unit's** from quarter notes to eights or sixteenths, you will see that the **Clicks per Beat** option changes to give you the choice of several audible beat subdivisions. These options range from x4 and x6 subdivisions in 16th note meters to .5 subdivisions (one click every two beats) in half note meters.

To toggle between the audible beat subdivisions without using the mouse, you can hold down the **Option** key and hit the **period** and **comma** keys for the same result.

Customizing the Accents

CUE will place a number of "x's" to the right of the word **Accents** that is equal to the number of **Beats per Bar**. Clicking on any of these displayed x's will place an accent above it, providing an audible accent for that beat. A second click on any x will turn the accentuation off for that beat.

If you wish to customize your audible click track further, you can click on the **Accents Only** box. With this feature engaged, only accented beats will be heard in your click track. This is a particularly useful feature for irregular and compound meters. A 7/8 meter with clicks placed only on 1, 3, and 5 would be constructed like this:

Clicks per Beat 2 3 **Accents Only**
Accents: > > >
 x x x x x x x

In **Playback**, **CUE** will play all 7 beats for each measure of **Warning Clicks** specified. Then, for the cue playback it'self, accents only will be heard. Remember to reset your accents with each change of meter within a cue, if you want a different accent scheme.

The Next and Previous Buttons

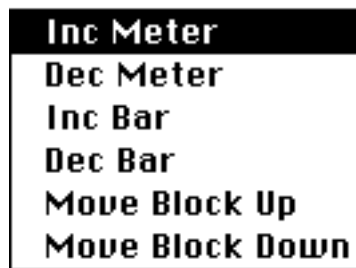
If there are multiple meter changes set in a cue, the **Next** button or **Previous** button can be used to jump forward or back between them. While you can modify

any meter you select, remember that a modification to the meter of an early measure will wipe out all ensuing meter changes. If you don't wish to lose your next meter changes, you may wish to use the **Insert** function, or build your meter changes from the beginning of the cue.

The left and right arrows on your Macintosh keyboard will replace mouse clicks on the **Next** and **Previous** buttons.

Changing the Meter While in the Cue Sheet

If you scroll to any place in the **Cue Sheet** where a change in **Meter** is displayed and click on that meter change text, a pop up menu will appear that allows you to make a number of metering decisions without having to go back to **Set Meters**.



Inc (Increment) **Meters** and **Dec** (Decrement) **Meters** are very straightforward. Selecting either one of them will change the **Beats per Bar** by one step in whichever direction you select.

Inc (Increment) **Bar** and **Dec** (Decrement) **Bar** will change the bar number that the meter change you have clicked on occurs at. You can make these one bar at a time adjustments until that particular meter bumps up against a subsequent or previous meter change.

Move Block Up and **Move Block Down** will let you move an entire block of meter changes. When you select either **Up** or **Down**, a little dialog box appears that gives you the opportunity to select how many bars you want this particular block moved. This procedure will affect the meters that follow the one you are moving. If you move a particular block forward three bars, every subsequent change will also show as being moved by three bars, so if you don't want to change these following meters, you should use **Inc Bar** and **Dec Bar**.

How to Organize Where to Make Meter Changes

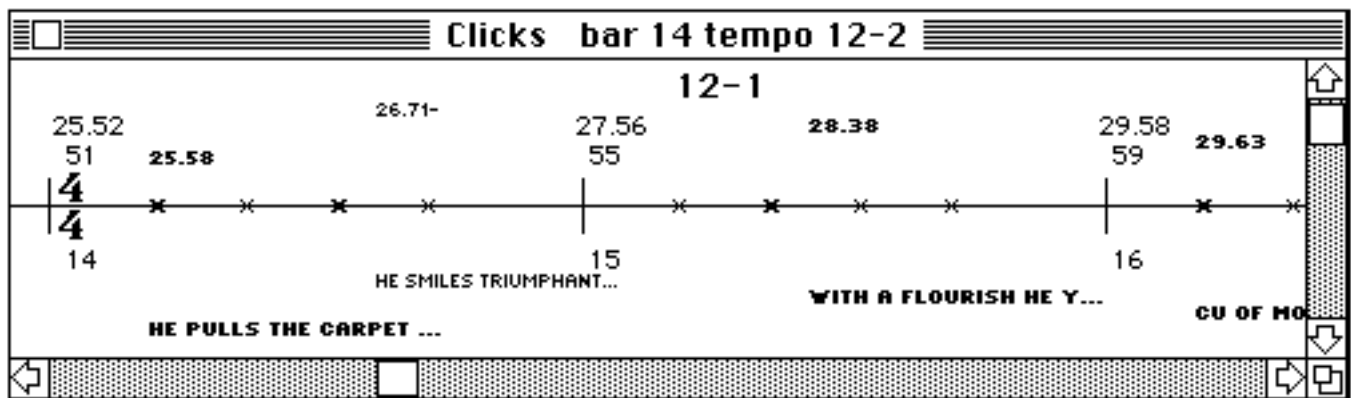
There are two ways to make selecting places for **Meter Changes** easier:

While you are in the **Set Meter** dialog box, you can hit the letter "y" (upper or lower case) which will toggle between **Clicks** and **Measures/Beats**. If you are in the **Cue Sheet** and wish to do this, you can hold down the **Command** key and hit **Y** to achieve the same results. If you can't remember this shortcut (which is listed in the **Misc** menu), a longer method for switching formats is to click on the **Operations** menu, where you can first select **Set Formats** and then **Cue Sheet Formats** from the hierarchic menu that appears. Once this dialog box presents itself, you can set the **Click** display to **Measures/Beats** or **Clicks**.

Another completely different approach is to examine the **Clicks** window.

The Clicks Window

Selecting **Clicks** from the **Windows** menu, or typing a **Command K** gives you a window which displays your cue in notation similar to that used for drum parts. With the **Clicks** laid out in such a visual manner, it is very easy to make decisions about setting **Meter**.



What's in the Window?

At the beginning of each bar we have the following information (reading from top to bottom): the time of the beat at the start of the bar (**25.52**); the click # of that beat (**51**); a meter change (if there is one) (**4/4**); and the number of that particular bar (**14**).

If you have made a **Tempo** change during the cue, this will be displayed above the beat where you called for the change. In our example, a **12-2 Tempo** starts at beat number 55.

There is a horizontal line with an "x" on it for each click. Up to 48 bars are displayed on any single line. Whenever a cue point comes along, the "x" closest to it appears in bold.

Each cue point has two pieces of information related to it. Above the "x" is the time of that cue point, and below it, an abbreviated form of the description. The **Key Hit's** descriptions appear in bold.

If the cue point is off by more than the margin set in the **Search Tempos** box, it's time will be followed by a minus if it is early and a plus if it is late.

When the timing information and abbreviated description are vertically aligned with an "x", and there is no plus or minus following the timing, that quarter note is hitting this cue point (see beats 51 and 59 in the example above). If the cue point is shown between beats without a plus or minus, it is hitting the eighth note (look between beat 56 and 57).

How to Use the Clicks Window

Any changes made in the cue via the **Input** window or any menu commands such as **Set Meter** and **Set Tempo** will be immediately reflected in the **Clicks** window.

Navigating the **Clicks** window is easy. There are both vertical and horizontal scroll bars that will move you from bar to bar in a leisurely manner.

For greater speed, type a bar number followed by the **Return** key, and that bar will appear as the first bar on the screen.

Typing "+" (or "=") and a number will immediately move you that many bars further into the cue, and typing "-" and a number will move you that many bars earlier.

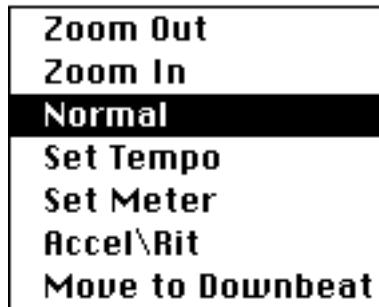
If you try to look at a measure number that is higher than the number of measures in the cue, the **Clicks** window will scroll to the last bar in the cue.

The title bar displays your current bar number and **Tempo**. This is helpful in case the most recent tempo change has been scrolled off the screen.

The **Clicks** window can be scrolled in **Playback**, allowing you to hear and see each upcoming cue point, along with it's brief description (see page 36).

The Clicks Window Pop-Up

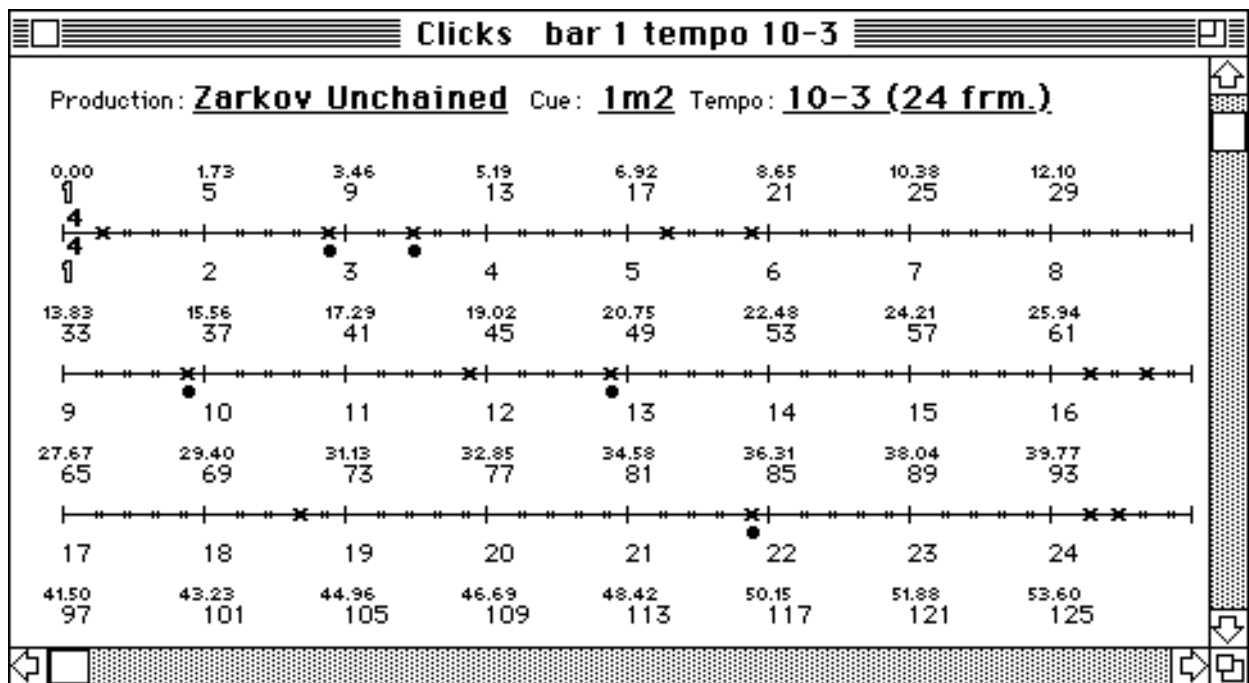
When you click anywhere on the **Clicks** window, a pop-up menu will appear that looks like this:



This is perhaps the most useful and powerful of the pop-up menus scattered throughout **CUE**.

ZoomOut and In: A Macro/Micro Measure Display

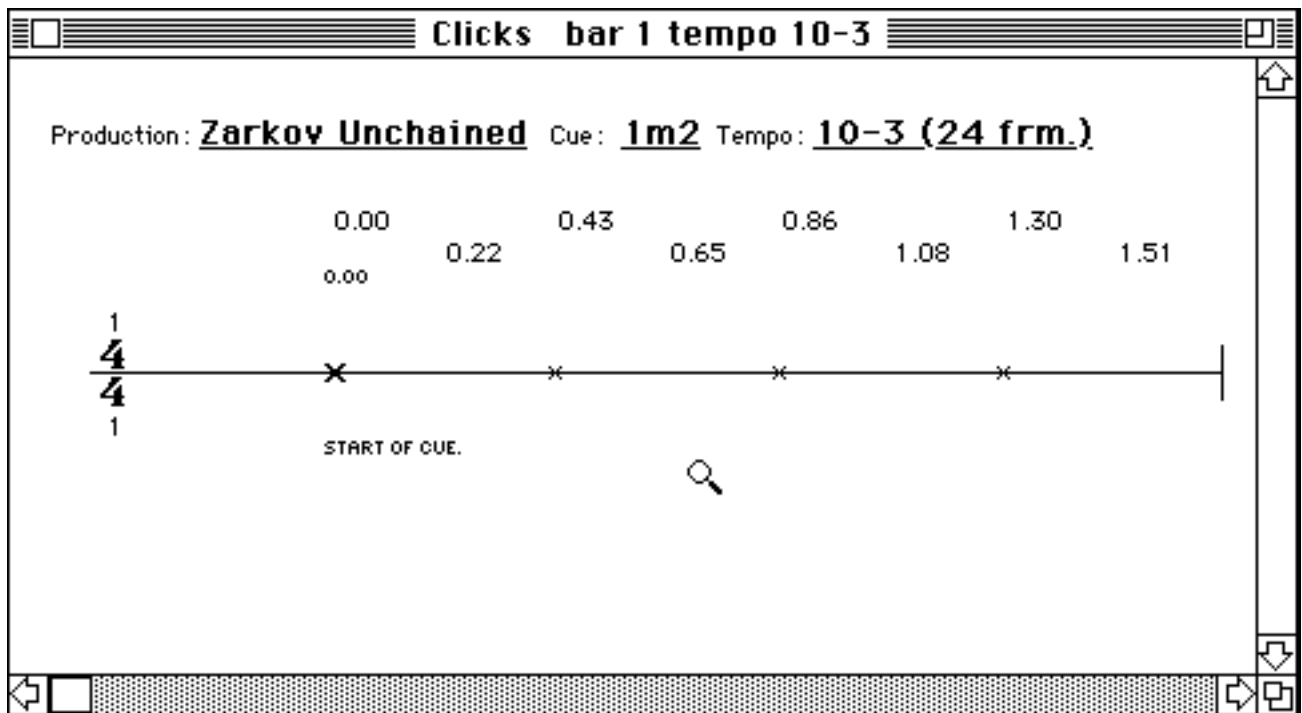
When you select **Zoom Out**, the display will change to show you up to 32 bars of your cue on a standard **Macintosh Plus** or **SE** screen.



In **Zoom Out**, you will see a maximum number of measures displayed on screen so you can start to get a perspective of what is happening with the whole cue. In this mode, **CUE** will place 8 measures to a line so you shouldn't have to scroll left to right. Because we are looking at so many measures at once, there is no room for any cue point descriptions. Events are indicated by the large, bold "x". Their spatial placement in the cue will give you a sense of where each cue point falls. If the cue point is a **Key Hit**, there will be a black dot beneath the large, bold "x".

Whichever measure was the first one displayed in the **Normal** size **Clicks** window will have its measure and beat number outlined when you **Zoom Out**. When you return to normal size (this sounds like *Fantastic Voyage*), that measure will once again be the first one displayed. This is done so you don't have to remember the specific measure you were focused on. If you want to return to a different measure, just type that measure number and hit the **Return** key. Now this new measure will be the one whose measure and beat number will be outlined, and thus will become the measure the **Clicks** window displays when you return to **Normal**.

From the **Normal Clicks** display, select **Zoom In** from your pop-up menu.



Zoom In looks at a single measure (the one clicked on in **Normal** or **Zoom Out**) with all the information displayed in the **Normal** sized window, plus the time of each beat and of each half beat. If you need to descend to an extreme level of detail, then this is the place to be. Notice that the cursor has turned into a little magnifying glass. The only function that works differently in **Zoom In** as compared to **Normal** size, is that the scroll bar thumb will zip over to wherever you click your cursor, as if it was magnetized.

Set Tempo, Meter and Accel/Rit

You can click on **Set Tempo**, **Set Meter** or **Accel/Rit** in the pop-up menu without having to leave the **Clicks Window**. The beat you click on when you select **Set Tempo** will be placed into the box labeled **Starting at Click #**. The measure you click on when you select **Set Meter** will be shown in the box labeled **Starting at Bar #**. And, the beat you click on when you pick **Accel/Rit** will show up in the box marked **Ending Beat #**. The primary purpose of **Accel/Rit** here is to move around a single beat, as opposed to a complete cue point.

A Note to Avoid Confusion: Since you have entered the **Accel/Ritard** dialog from the **Clicks** window by clicking on a specific beat number, hitting **OK** without logging a new ending beat into the **Accelerando/Ritard** dialog will result in no **Tempo** changes being made since **CUE** is already hitting that beat with the current **Tempo**.

Move to Downbeat

Move to Downbeat is a very useful tool although at times it can be more literal and less musical than you would be. Clicking on a particular beat in the **Clicks** window and selecting **Move to Downbeat** from the pop-up menu, will automatically shorten that measure making the selected beat the first beat of the next bar. While this is a great little short-cut, it may not always arrange the previous bars into the most sophisticated musical solution.

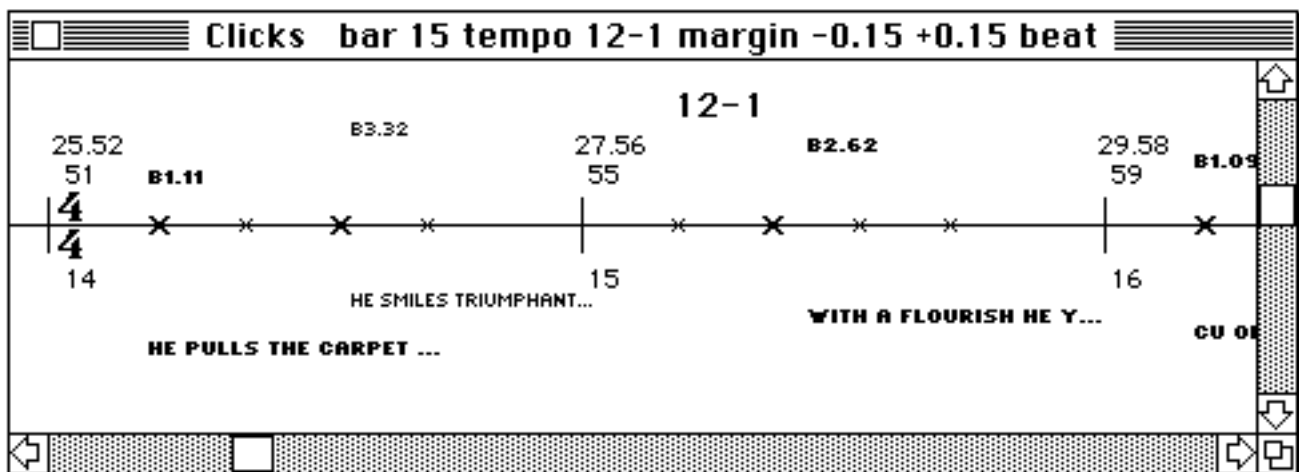
Example: You want the third beat of a measure to become the downbeat of the following measure. For your specific application, you may want two 3/4 bars to precede this beat instead of a 4/4 bar followed by a 2/4 bar (which will be **CUE**'s tendency). If you don't like **CUE**'s solution, you can always hit **Command-Z** to undo this change and then use **Set Meter**.

To "B" Or Not To "B"

Command ", " toggles the display between showing cue point timings in seconds and displaying cue point timings in beats to the nearest hundredth from the last barline, not from the beginning of the cue.

In this mode, plus or minus signs have been deleted after cue points if they are not within the acceptable hit margin (which you set for a quarter or eighth note). Instead, added to the title bar is a display which tells you the range of the hit margin which you set in the **Search Tempo** dialog box. This range is expressed here in hundredths of a beat in the current **Tempo**. Using this error margin in conjunction with the beat fractions will enable you to make the appropriate musical choices.

The benefit of this display mode is that you can tell much more about the cue points which do not fall within the hit margin of a quarter or eighth note.



If we compare the above example to the identical measures displayed in seconds on the previous page, it can be seen that the cue point at 26.71 seconds could in fact be caught with a triplet. Also, if you check the error margin in the title bar, you might notice that this cue point is three hundredths of a beat from being within the hit margin of an eighth note. These kind of evaluations are not possible by simply looking at the time from the start of the cue.

A Helpful Hint

Using the "+" and "-" is especially useful if you are trying to fit an existing tune to the cue. Say the tune has a sixteen-bar verse and the verse starts at bar 27.

Type: 27 and hit **Return** to bring the start of the verse into view. Typing: "+" 16 **Return** will quickly tell you how the start of the chorus relates to the cue.

Of course, you could always add 27 and 16 in your head and type **43 Return**, but you've got **CUE**, so why not let it do the work?

What if I Don't Want Any Bar Lines?

Now that we have gone to such great lengths to **Meter** the cue you say you would prefer not to have any bar lines at all. Hmmm Well OK, have it your way, but I wish you had mentioned this before Go to the **Misc** menu and select **Hide Bar Lines** (or hold down the **Option** and **Command** keys while typing **B**).

Squeezing the Weasel

Although this little known Scottish tradition has never been written about in a major software manual, we felt it was time to bring this ancient practice to light if for no other reason than it makes a great chapter heading, and the Society for Ethnomusicology didn't want to publish it.

The first written account of squeezing the weasel is found in the journal of Lord Bartholemew McWanker, the third Earl of Askew who firmly believed that this pagan ritual dating back to Druid days was cruel to the small animals and should be abolished. He was instrumental in designing an acceptable substitute that duplicated the experience as closely as possible and is remembered to this day as the inventor of the bagpipes.

Despite his invention catching on quite well, there still remain to this day certain pockets of traditionalists who feel that nothing tops the sheer sensual excitement of actually squeezing their very own weasel. It may be noted as a further sidelight, that the original pagan practice led to the development of flexible iron gloves for hand protection.

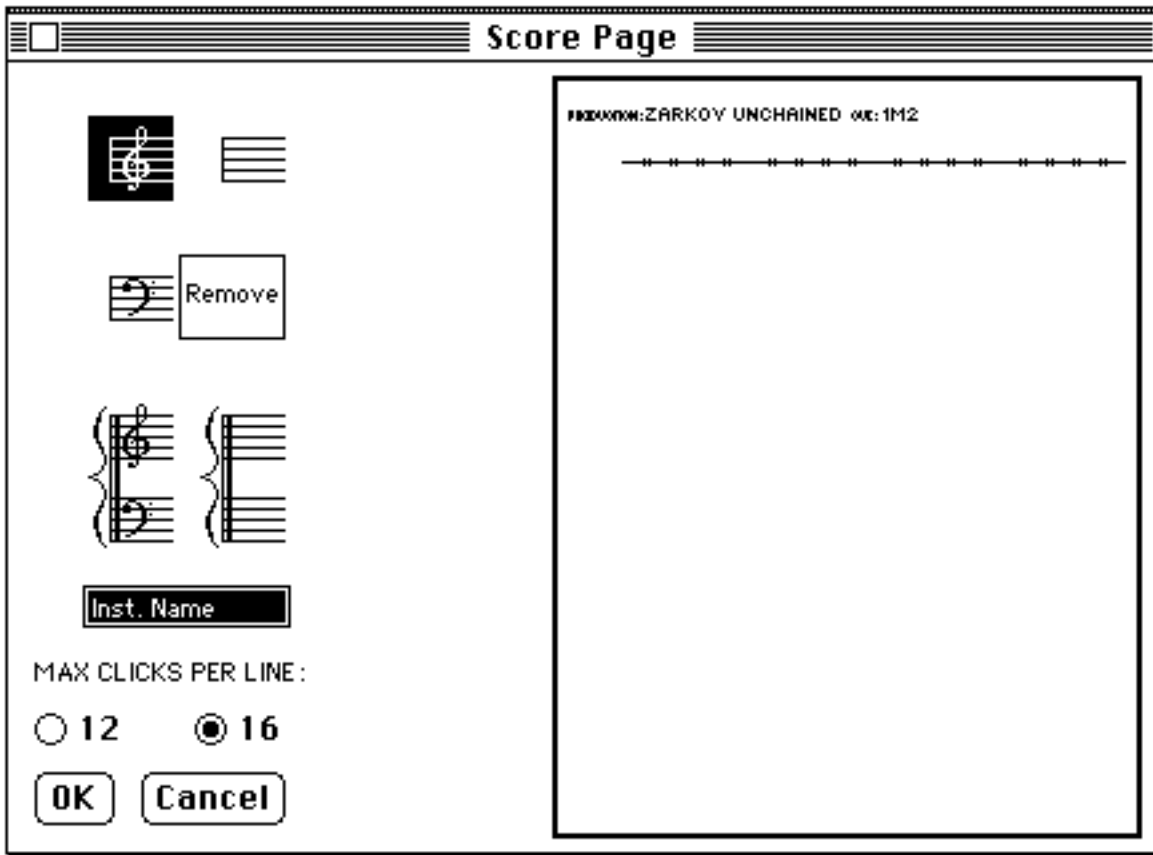
7 Cue's Hardcopy Output

While the **Cue Sheet** is the central document that **CUE** generates, it is the goal of this program to provide a full range of print outs that will allow you to make this program a home base for the entire film scoring process. In line with that, **CUE** will let you create custom **Score Paper**, generate **Spotting Notes**, a **Title Page**, a **Master Cue List**, and a **Performing Rights Cue Sheet**

Creating Custom Score Paper

You may have noticed by now that all the information in the **Clicks** window is remarkably similar to the data a composer laboriously transfers by hand to sketch paper before sitting down to write. Guess what you don't have to do anymore...

By selecting **CUE's Score Page** from the **Windows** menu you can create custom sketch paper that has all the information in the **Clicks** window automatically printed at the top of each system. This is what the **Score Page** window looks like:



On the left are icons representing different staff and clef configurations. Below them is a box for entering an instrument name.

To design your score page, type in the instrument name and then select the appropriate icon by clicking on it.

Now point to the miniature score page on the right side of the window, and click where you want to add the new staff. When you click the first line, do so about one quarter of an inch under the line of clicks at the top of the page. Notice that when you do so, the cursor arrow changes to a tiny staff. To make a change you must click in an area where the cursor has changed into a tiny staff. When you have clicked successfully, you will see a staff appear on the page with a miniature instrument name to the left of it. If you click somewhere that does no good, you will be severely reprimanded with a beep.

You add staves by clicking below the lowest staff of the first system on the page.

To replace a staff, type in another instrument name in the box on the left, and select the appropriate staff and clef icon. Then click on the staff you wish to change, and it will be replaced by your new entry. If you selected the **Remove** icon, any staff you click on will disappear from the score page.

Should you have forgotten what instrument you placed on a particular staff, you can find this out by moving the cursor to the miniature score page and clicking on the instrument name in question. When you click on the tiny instrument name you will see it appear in the text box where instrument names are typed. Also notice that the corresponding clef icon has been selected as well. If there is more than one system on the page click on the instrument names in the system closest to the top of the page.

For a clef other than treble, bass or a combination thereof, you will have to pick the plain staves and do your own artwork after you generate a printout. Should you be so heartless as to ignore the lovely clefs we have created for you, the tenor clef is it's own punishment.

Near the bottom of the **Score Page** window underneath a line which reads: **Max Clicks Per Line**, are two buttons labeled **12** and **16**. The default setting is sixteen clicks per line, but if you are going to be writing a lot of sixteenth notes, you can click on the button marked **12**, to give yourself more space on the page.

CUE will adjust to fit the maximum number of bars and staves on the sizes of paper your printer can use. When your score has only one or two staves, **CUE**

will place three systems on a page for an Imagewriter with 8-1/2 x 11 paper. With three to five staves, this decreases to two systems. If you select more than five staves, the **Score Page** will reduce to a single system. There can be up to twelve staves per page.

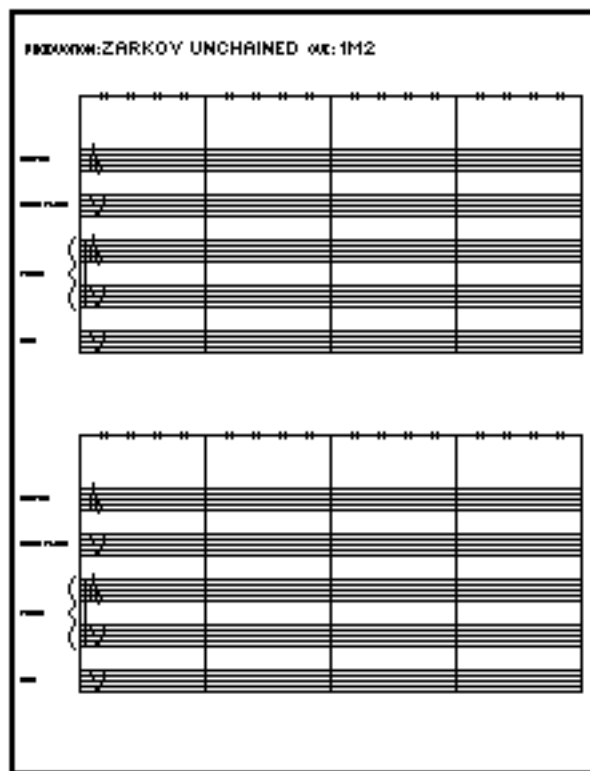
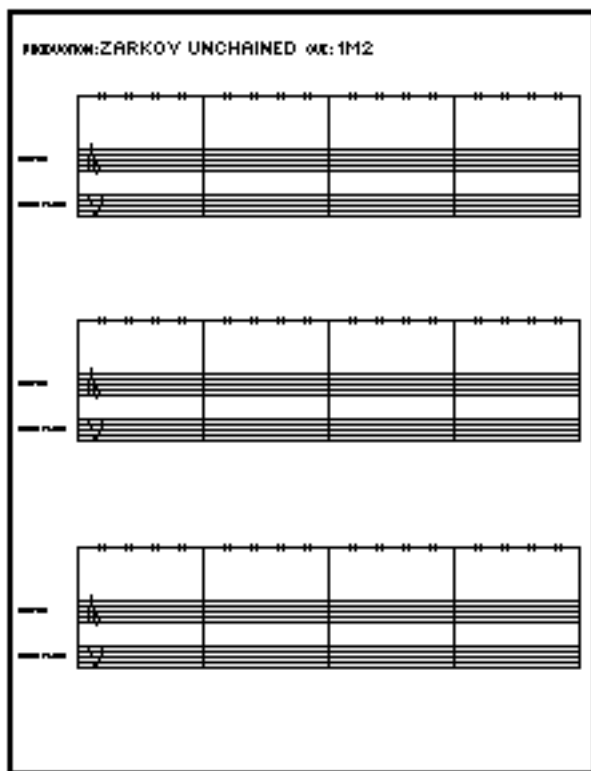
Should you want more room between your bar lines, and would like to have 16 clicks per line, you can print your **Score Paper** sideways by clicking on the **File** menu, selecting **Page Setup** and selecting the sideways print icon under **Orientation**. If you know you will be printing sideways, lay out your **Score Page** accordingly. In this print format you will be limited to two systems of up to three staves or one system of up to eight staves.

Although we mentioned in the discussion about the **Clicks** window that you can do away with bar lines, it bears repeating in this section on the **Score Page**. Go to the **Misc** menu and select **Hide Bar Lines** (or hold down the **Option** and **Command** keys while typing **B**). When you print out the score, measure lines will be withheld.

Every brand of printer is slightly different with respect to just how much paper it actually prints on, so the number of systems that can be placed on a page will vary from printer to printer. The miniature score which follows is just an approximation of what you will see with an Imagewriter II.

Hide Bar Lines and **Max Clicks per Line** do not change the score page display.

Below are two examples of what the **Score Page** looks like as the staves builds up.



Just in case you are worried that this is the size of the score paper when it prints out, do not be concerned. You can see an example on the next page which is closer to the actual size of the score paper which the printer turns out.

Saving Your Score Page

When you are satisfied with your layout, make sure you click on **OK** (or use the **Enter** key). If you click on **Cancel**, the **Score Page** window will be returned to it's previous state. This means that should you have clicked **OK** while you were working, then this is the point the **Score Page** will revert to. Any further deletions will have to be done by using the **Remove** icon. To remove the **Score Page** window, click on one of the windows visible behind it or click on the close box in the upper left hand corner.

There are two options available to **Save** your score setup to disk. One is to click on **Save Cue** in the **File** menu which will save the **Score Page** as part of that **Cue Sheet**. The other is to select **Save Score** from the **File** menu, give your **Score Page** a name and click on **Save** which will make it an independent file.

Saving your **Score Page** as part of your **Cue Sheet** will always link it with that particular **Cue Sheet** when the time comes to print out your **Score Paper**. By saving the **Score Page** as a separate file with it's own name, you can use this single **Score Page** to print out **Score Paper** for a number of cues that have the same instrumentation. The advantage of this is that since there are probably many cues that will use the same orchestration, you can use a single **Score Page** without having to create an identical one over and over for each cue. Conversely, if there is no **Score Page** saved as part of the file, opening that file will not replace a score that has been previously loaded into the program.

Whether you loaded a **Score Page** in as separate **Score Page** or whether it is left over from a previous file, it will stay there until you update it. So if you do not want to save that **Score Page** as part of the new file, make sure you delete the staves that are shown and click on **OK** before you leave the **Score Page** window and **Save** the **Cue Sheet**.

NOTE: The information about whether you want **12** or **16** clicks per line is **Saved** with each individual cue and not with the **Score Page** file. This is done so that if you are using the same score setup with different cues, each batch of score paper will print out with the number of clicks per line that is most appropriate to the music you are writing for that particular cue.

Printing Your Score Paper

In order to print your score paper, select **Print** from the **File** menu, and release the mouse button on **Print Score Paper** when the sub-menu appears. Since any

score setup can be used with any **Cue Sheet**, you can just click on the **File** menu, select **Open Score**, and double-click on the **Score** file title you want.

When you are still in the **Finder** and wish to print a score, you can select any number of cues that you wish to have **Score Paper** printed up for. A typical **Score Page** icon looks like this:



Printing From the Finder

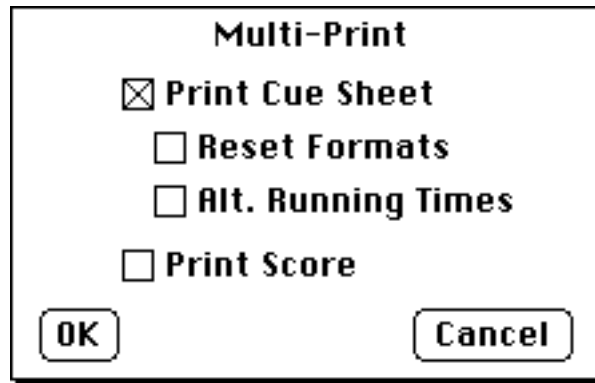
Should you have a **Score Page** that you would like to apply to a number of different cues, move your file icons around in the **Finder** so that this **Score Page** precedes the files you wish to link to it. Then select the files you want, click on each file while holding down the shift key, or draw a rectangle around all of the files to be connected. The **Finder** will print out all files that you have selected starting in the upper left hand corner and proceeding left to right across that line. When it has done that, it will go to the second line down and do the same until it has printed every file you have selected.

CUE will use a **Score Page** to print **Score Paper** with that particular orchestration for all the files that follow, until it comes to another **Score Page** set-up or until it encounters a file with it's own **Score Page**.

Score Pages that have been **Saved** as part of a specific cue will always take precedence over a separately **Saved Score Page**. If the next file in line to be printed does not have a **Score Page Saved** with it, it will link up to the **Score Page** that was printed with the previous cue.

Multi-Print

You can print out both **Cue Sheets** and **Score Paper** from the **Finder** in a single process if you wish, or each individually. After you have selected the icons of all the cues you want to print, choose **Print** from the **File** menu. When you do this, a special dialog box will be displayed on the screen before the standard Macintosh print options are made available to you:



If you are printing **Cue Sheets** and **Score Paper**, make sure both boxes are clicked "on". To continue, click **OK**, or hit the **Enter** key and you will be presented with two Macintosh page set-ups and two Macintosh print option dialog boxes one after the other. Each of them will have a title beneath it indicating whether you are setting the print options for **Cue Sheets** or **Score Paper**. This will allow you to have different printing specifications for each form in the same print run, such as printing your **Cue Sheets** vertically and your **Score Pages** horizontally.

Although printing sideways was mentioned already in conjunction with how you lay out the score paper, it can't hurt to mention it again now that we are discussing printing. Should you want wider bars, but would like to have sixteen clicks per line, you can print your **Score Paper** sideways by clicking the **File** menu, selecting **Page Setup** and clicking on the sideways print icon under **Orientation**.

In this way you can set up a large amount of material to be printed without having to be there to nursemaid the process. **Score Paper** does take a while to print, so printing a batch of material at one time while you do something else can be a definite time saver.

CUE will put the date and time in the upper right hand corner of every **Score Page** you print so you will always be able to tell which is the most recent copy.

Remember that the information in the **Clicks Window** will be printed out at the top of each system in the format that was selected with **Command ", "** (see page 157), so make sure this is set correctly before you print your score.

In the lower left hand corner, **CUE** will place a copyright sign (©) followed by the year, the name of the first composer, first publisher and affiliation (depending on what information you have entered under **Set Cue Info**).

A check in the **Reset Formats** box and an **OK**, will bring up the **Set Time Formats** dialog, used for selecting **Absolute** and **Relative** time formats for your two left hand time columns in the **Cue Sheets** to be printed. You can select any of the different time formats (seconds, film feet/frames, video frames etc.) for printing purposes here without altering your original **Saved Cue Sheet** formats. This should prove quite useful when you need to print out **Cue Sheets** with varied time formats, without having to go back to each for conversion.

When you place a check in the **Alt. Running Times** box, your printed **Cue Sheets** will change the **Column One Time Format** to what has been previously set as your **Alternate Running Times** in all of the **Set Running Time** dialog boxes (**Command Opt-X**) for your selected cues.

Using Different Printers

CUE will recognize different Mac compatible printers and make adjustments to them. If you own a laser printer and the Sonata™ font, **CUE** will be able to utilize this font in your laser printouts. Not only is the laser printer recognized, but if you have a wide Imagewriter, **CUE** will adapt to the larger paper dimension and place as many systems per page and bars per line as is possible.

A Handy Hint: If you print your **Score Paper** out sideways, don't tear the individual sheets apart when you remove them from the printer. By taping the left edge of the first page to the last page, you will have an easy to use book.

The Master Cue List

To build a **Master Cue List** (the "Bible") of all the cues and their vital statistics from a particular film, click on the **Windows** menu and select **Master Cue List**.

Although we have written previously about saving cues with a "production code", it bears repeating now because of it's relevance to the **Master Cue List**:

If you want the **Master Cue List** (or the **Performing Rights Cue Sheet** or **Spotting Notes**) to work, you must name your files and folders correctly when you save them for the first time. It is only when the file name of each cue in the film begins with the same "production code" followed by a slash (/), that **CUE** will include it in the search. So stay consistent within a given project when you **Save** cues.

Also, be sure to enter a cue number in the **Set Cue Info** dialog box using the form *rrMss*, where *rr* is the reel number and *ss* is the start number (**6m4** is the fourth cue on reel six). **CUE** uses these cue numbers to sort the cues into proper order. Any cues without numbers will be listed alphabetically by title.

One final warning before we go any further: If you have been reading this manual front to back, you will probably be sick of hearing about this by now, but since it is the most common error made by **CUE** users **DON'T STICK YOUR FILES OR FILE FOLDERS IN A FOLDER LABELED: "CUE" OR ANYTHING OTHER THAN THE PRODUCTION CODE OF THE PROJECT YOU ARE WORKING ON FOLLOWED BY A SLASH!!** If you do, **CUE** will not be able to find these files when it searches to do a **Master Cue List** compilation.

To use the **Master Cue List**, start by typing the "production code" (without a slash mark) into the box at the bottom left of the window. Next, enter your **Production #** if any into the appropriate box, and click on the title **Prod. #** which should be highlighted. If you want to have the cues for a particular session number displayed or printed then enter that session number in the box to the right of **Session #**. and click on it's highlighted title. Only cues with the proper production and session numbers (from **Set Cue Info**) that match the session number you placed in the **Master Cue List** will be searched for. If anything other than 1 to 9 (including leaving the space blank) is entered as the session number, all cues will be displayed.

Before you click on **OK** (or hit the **Enter** key) to initiate the search procedure, be sure that **CUE** knows about all the disks you want to include in the search. Any disks that have not been placed into a drive since you opened the program should be inserted at this time. Clicking on the **Eject** button will remove disks currently in use so you can place other disks in your drive. You can repeat this process as many times as is necessary.

As you can see in the example on the next page, once the search has started, you will be asked to **Search** or **Skip** each disk that has been inserted since you began your current use of **CUE**. If you have forgotten any disks, you will have to go through the search procedure all over again, so it is good to be organized before you start.

Master Cue List

Search the disk called
CUE ?

Production Code **Prod. #**

Session #

After all the disks have been searched, the **Master Cue List** will list every cue in numerical sequence. Any cues which have not been given a numerical name will appear at the end of this list in alphabetical order.

Master Cue List						
Production: <u>Zarkov Unchained</u> Production #: <u>1234</u>						
Episode: <u>Zarky and the Hot Tub</u>						
Cue	Composer	Orchestrator	Written	Orch'd	Copied	Last Rev.
1m1	R. Walter	Munchie Arlett				11/9/89 4:49 PM
1m2	R. Walter	Munchie Arlett	✓	✓	✓	1/14/90 5:06 PM
1m3	R. Walter	Munchie Arlett				7/4/89 3:33 PM
2m1	Bob Walter	Munchie Arlett				1/8/90 12:43 PM
2m2	R. Walter	Munchie Arlett				7/4/89 4:32 PM
2m3	R. Walter	Munchie Arlett				7/4/89 3:51 PM
2m4	R. Walter	Munchie Arlett				7/4/89 3:53 PM
3m1	Rick Johnston	Munchie Arlett	✓	✓		1/8/90 12:59 PM
3m2	Rick Johnston	Bob Walter	✓			1/8/90 12:46 PM

Production Code
 Prod. #
 Session #

For each cue number you can see the composer, orchestrator, whether it has been written, orchestrated copied and recorded (any cue that has been recorded has a line drawn through it), and the date and time of the last revision. If there is more than one cue with the same title, the most recent one will be listed.

A reminder: the **Set Cue Info** dialog box in the **Operations** menu is where you enter the information about the progress of the cue by clicking the buttons marked **Written**, **Orchestrated**, **Copied** and **Recorded**.

Once the **Master Cue List** (or the **Performing Rights Cue Sheet** or the **Spotting Notes**) has been built, you can print out the **Master Cue List** by selecting **Print Cue List** from the **File** menu. As a convenience to you, **Print Cue List** is kept disabled in the menu until you actually have a compiled list ready to print.

Clicking on the **Clear** button will cause the text in the **Production Code** box to be returned to the last "production code" that was **OK'd**.

The **Master Cue List** only searches cues that have been **Saved** to disk. If you have changed the title or **Cue Info** of the cue currently in memory, you must **reSave** the cue if you want it included.

If you are using HFS (Hierarchical File System) initialized disks (such as 800K double-sided disks, the Apple HD20, or a SCSI hard disk) and you want to put your cues in folders, your folder names must start with the "production code" and a slash (/) in order for them to be included in a search. The folders can be nested as deep as you want as long as they follow this naming convention. For example, you might have a folder named **Zarkov/Cues** that contains other folders named: **Zarkov/Reel 1**, **Zarkov/Reel 2**, **Zarkov Reel 3**, etc. Each of these folders would contain the actual cues. Even if you are not using HFS-initialized disks, following this organization procedure will help you keep your project in good order.

Performing Rights Cue Sheet

Although completing the **Performing Rights Cue Sheet** is one of the last tasks you will do on a film, we will deal with it now, because it operates identically to the **Master Cue List** window. You access it by clicking on the **Windows** menu and selecting **Performing Rights**.

We will skip the steps for searching the various disks your film may be on, and ask you to refer to the **Master Cue List** section of the manual (page 166). One suggestion to add is that keeping all your cue files for a particular project on as few disks as possible will stand you in good stead when it comes to this sort of information management.

Another suggestion is to make sure that you have not stored your files or your production folder in another folder that is labeled with something besides the production code of the show you are working on. This is important to check because it will prevent **CUE** from being able to find them when it does a **Performing Rights** search.

After you have clicked on **OK**, and searched your disks, the **Performing Rights** window will look like this:

Performing Rights Cue Sheet					
Production: Zarkov Unchained Production #: 1234					
Episode: Zarky and the Hot Tub a Mega Studios Production					
Principal Actors: Joe Macho Trixie LaFlooze					
Producer: Fast Eddie Smith Director: John "Four Eyes" Fenton					
Country of Origin: Albania Production Year: 1989 1st Presentation: 1/2/97					
THEATRICAL FEATURE					
Cue	Composer(s)	%	Publisher(s)	Affil.	Time
The Egg Arr...(1m1)	R. Walter	50	Silverwood Music	ASCAP	1:08.00
	Maurice Flouncy	50	MF Music, Inc.	BMI	
				<u>On Camera Instrumental</u>	
Birth Seque...(1m2)	R. Walter	100	Silverwood Music	ASCAP	1:09.17
				<u>On Camera Instrumental</u>	
Production Code <input type="text" value="ZARKOV"/>		Prod. # <input type="text" value="1234"/>	<input type="button" value="OK"/> <input type="button" value="Eject"/> <input type="button" value="Clear"/>		
		Session # <input type="text"/>			

The production information that appears at the top of this **Performing Rights Cue Sheet** report was entered into **CUE** in the **Set Cue Info** and the **Set Production Info** dialog boxes that are in the **Operations** menu. The report takes this information from the first cue in the list.

Anything you type into the **Other** box of the **Set Production Info** dialog, will appear under the production and episode titles in the **Performing Rights Cue Sheet**. The rest of the information displayed above the actual list of cues is derived from specific dialog boxes you will find in **Set Production Info**.

Reading from left to right in the cue listing, the **Performing Rights Cue Sheet** displays the title, composers(s), percent each composer receives on a given cue, publisher(s), music society affiliation and length of the cue. Underneath the affiliation, **CUE** lists the cue's music usage (on camera, instrumental, etc.). If you have customized the **Usage Menu**, then any of these special choices you

have made will be displayed here as well. The **Usage** information will be displayed in it's own column if the **Performing Rights Cue Sheet** is printed out sideways.

At the bottom of the list of cues the amount of music in the film is added up. The total time of each type of usage will be listed, and beneath those, a grand total for the whole picture will be displayed.

Once the **Performing Rights Cue Sheet** (or the **Master Cue List** or **Spotting Notes**) has been built, you can print out the **Performing Rights Cue Sheet** by selecting **Print Perf. Rights** from the sub-menu of **File** column. Although longer titles are abbreviated on the Macintosh screen, they will be printed out in their entirety.

If you have cues in a film that do not get used in their full form because of one editing decision or another, you can make their actual length be reflected accurately in the **Performing Rights Cue Sheet** by placing a **Reverse Slash** (page 77) in your **Cue Sheet** at the point where the music was cut. This will make that cue point the end time of the cue and thus your **Performing Rights Cue Sheet** will list the correct amount of music, after you have saved your cue, and created a new **Search..**

8 Communicating With the Outside World

CUE converses easily with a range of synthesizers, video machines, streamer boxes,
tape recorders, sequencers and sync boxes

CUE outputs a click track with all the meter and tempo changes you have made

CUE allows you to customize the sound of the click track

CUE generates streamers and punches

CUE lets you superimpose streamers and punches over your video

CUE drives the Tesla Color Streamer Box

CUE locks to SMPTE

CUE outputs MIDI clocks and song pointers

CUE lets you loop or repeat any part of a click track

CUE can receive a MIDI start command

CUE instantly dumps it's click track into various sync boxes

CUE generates MIDI Event Triggers

CUE lets you follow existing material and tap out a click track by hand

CUE commands the generation of SMPTE

CUE creates MIDI Files that can be read by other programs

CUE will play any sequence that can be saved as a MIDI File

CUE Imports and Exports from older **CUE** versions, text, and MIDI files.

The Import and Export of CUE

When you have productions saved on an earlier version of CUE, and/or wish to **Import** text or MIDI files for **Cue Sheet** or **Playback** use, select **Import** in the **File** menu. The following entries will appear in the sub-menu, when you click on **Import**:



Importing Older CUE Files

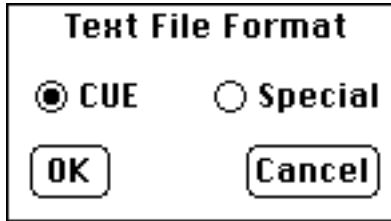
CUE has become quite friendly to **Imports** in recent years. Perhaps the most frequent importation for those owners of previous CUE versions is the **Import CUE 2.x File** feature. If you tried to **Open** an older file of CUE in CUE 3.0, you received the following admonition:



Frankly, there's not that much to the **Import CUE 2.x File** command. Mostly we wanted to show you the nifty sign above with the hand on it. After you have seen that, go directly to the **File** menu, and select **CUE 2.x File**. You will immediately be taken to the standard Macintosh File Selection box, giving you the opportunity to open files on your current storage system, or selected drive. From there CUE will open your files in a normal manner.

Import Text File

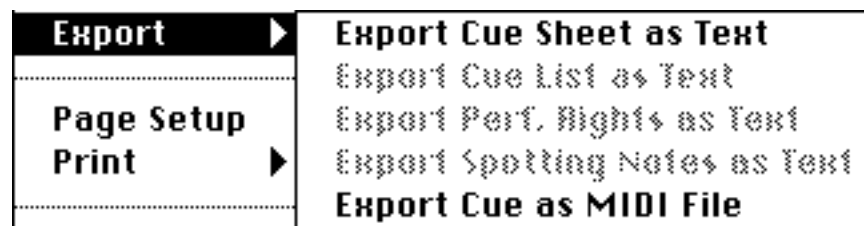
Click on the **Import Text File** and the following box will appear:



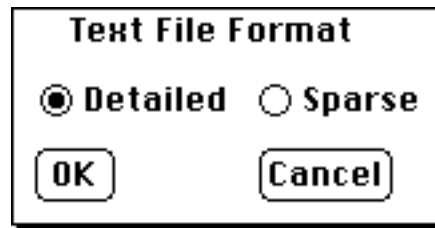
The **CUE** check box allows the importation of a **CUE Cue Sheet** which was previously saved in the "Sparse" text file format. This format was created for the additional flexibility of spell-checking or adding to your **Cue Sheet** material with a favorite word processor or text editor. Once you are finished with your word processor editing, **Save** your material under it's original name. For instance:



The "Special" check box is a text format used by the Music Design Group's In-house computer system.



Exporting the Cue Sheet as Text



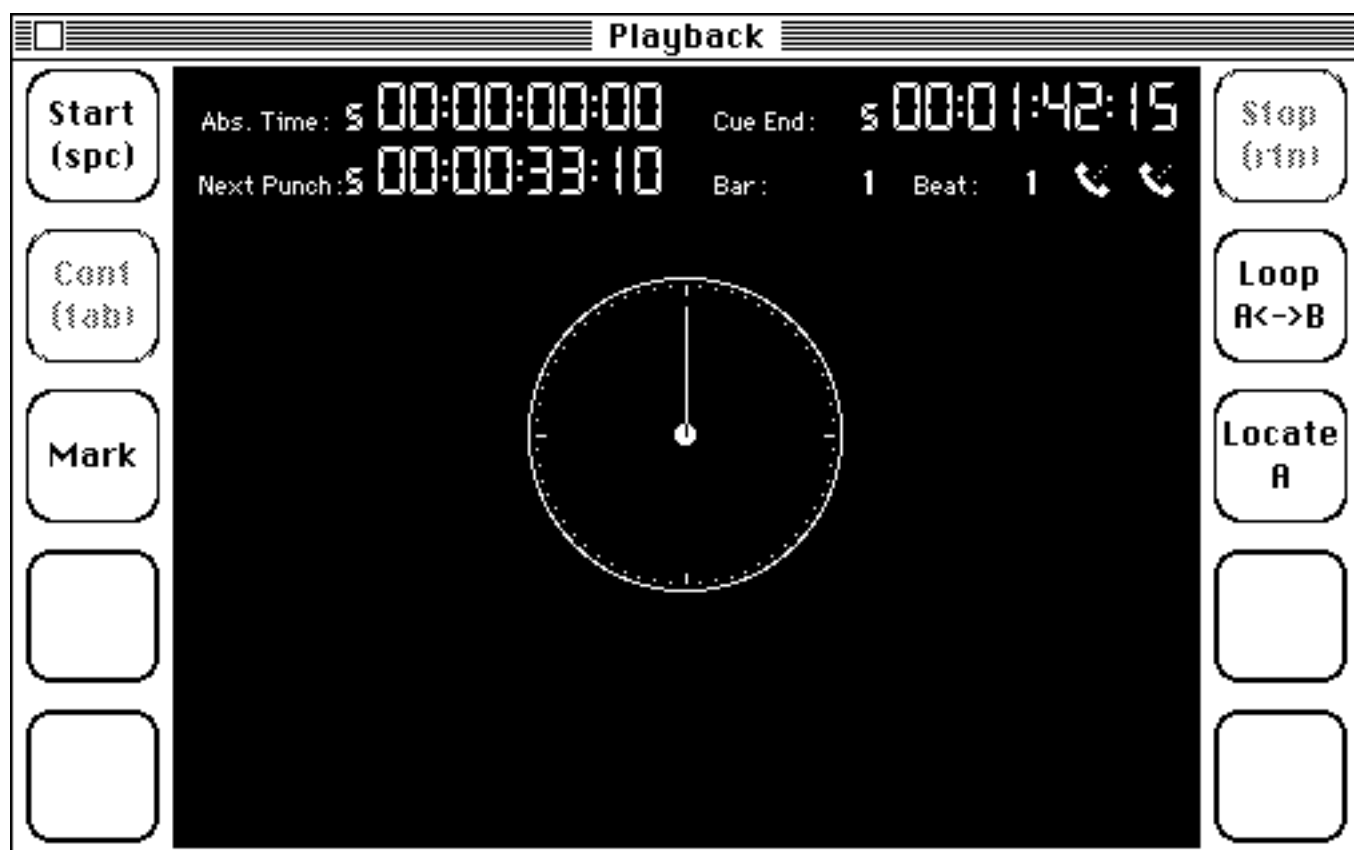
The **Export** sub-menu under **File** has both special text and MIDI file-save formats. The first, **Export Cue Sheet as Text**, allows you to save your entire **Cue Sheet** with all information (the **Detailed** check box) or with a single column of cue point timings and their descriptions (the **Sparse** text check box). Clicking on either of these two check boxes will bring up the standard **Save Text File** dialog box allowing you to **Name**, **Save**, or **Cancel** your present file. Note that **CUE** will automatically add a **.txt** to any previously **Saved** file placed in the **Save File** dialog box. This addition is not necessary for file recognition, however a standardized file-type format is highly recommended.

In the **Text File** format, you can open up your **Cue Sheet** for editing in a favorite text editor or word processor as discussed above.

Use the **Detailed** format when you wish to import a **Cue Sheet** file into a word processor for complete editing and printing from that application. In this form, you can transfer your **Cue Sheet** to someone who doesn't have the **CUE** application for information and/or further editing of the constructed cue.

The Click Track/ Streamers & Punches

When you are ready to play the **Click Track** or **Streamers and Punches**, select **Playback** from the **Reel World** menu (or hold down the **Option** and **Command** keys while you type **P**). The window you will be presented with looks like this:



It looks like a large strip of film with five sprocket holes (artistic license).

The film strip has a stopwatch readout that displays the **Absolute** or **Relative Time** depending on which one the **Input** window is set for. It also has a place below it where the time of the **Next Punch** is shown, and to the right, a **Cue End** display that indicates the length of the cue. All three will be shown in one of the two **Time Formats** you picked for your columns of timing information in the **Cue Sheet**. Which column's **Time Format** is to be shown in the **Playback** window depends on the choice of either **Enter Absolute** or **Enter Relative Time** that you made in the **Operations** menu. If both your timing columns are set for either **Absolute** or **Relative** time, then the **Time Format**

of the left column will default to **Absolute** time, and the right column will default to **Relative** time format.

To the right of the **Next Punch** is a display that indicates the current **Bar** and **Beat**. Following this are icons for display and selection of the **Music Port** and **Sync Port** for .MIDI information. Clicking on either one of these icons will change it from **Modem** to **Printer**, or reverse. In the center of the **Playback** window is a stopwatch face with a sweep second hand.

From this window you can play **Clicks**, **Streamers** and **Punches** as well as output **MIDI Clock**. You need select only those features that apply to the work at hand.

The **Playback** window is multitasking. You can go to other windows or even another application under **Multifinder** while the **Playback** window is running and it will still keep going. In fact, you can run both the **Playback** window and **Midi Events** (page 202) simultaneously.

Playing the Click Track

Six of the sprocket holes have text in them, and function like large buttons. The **Start**, **Stop** and **Cont** (Continue) buttons are fairly self-explanatory. To play the **Click**, click on the **Start** button or hit the **Space Bar** on the keyboard. After you hit **Start**, **CUE** will play the number of **Warning Clicks** you have asked for in the **Set Countoff Warning Clicks** dialog box under the **Operations** menu. Then it will begin playing the **.i.Click Track** with all the **Meter** and **Tempo** changes you have placed into the **Cue Sheet**.

You can listen to the clicks through the Mac's internal speaker, plug its audio output into an external sound system, or send it to a midi device.

While the **Click Track** is playing, the **Playback** window will display what **Bar** and **Beat** you are on.

Starting the Click After the First Bar

If you have stopped your **.i.Click** at a certain point and wish to resume with the very next beat, click on the button marked **Cont** (**Continue**) which appears below the **Start** button and will become enabled whenever you hit **Stop**. Hitting

the **Tab** key will also cause the **Playback** window to **Continue**. Either way, **Continuing the Playback** will pick it up on the next beat from the one you stopped at.

Should you want to play the **Click** from a point other than the **Start** or the point where you may have stopped it, you can do so. As you move the mouse cursor over the **Bar Number** you will see that as you place it over the top half of the number it turns into an arrow pointing upward, and as it covers the bottom half of the **Bar Number** it turns into a downward pointing arrow. When the upward arrow appears, clicking on the **Bar Number** will increment it, and when the downward arrow is visible it will decrement the **Bar Number**. The **Beat** number works the same way except that you can only increment it.

If it is more convenient, you can type out that **Bar Number** instead of incrementing or decrementing. It will appear in italics until you hit either the **Return** or **Enter** key. If you want to start at a beat other than the down beat in the **Bar Number** you have just typed, you will still have to increment the **Beat** by clicking on it.

In either case, the **Playback window** will start playing the beat following the one which you have entered. To store any of these internal start times, see the section entitled **Multi-Point Search to CUE** that follows **Looping the Playback**.

If you have an Opcode Studio 3, footswitch #2 will stop playback.

Looping the Playback

If you wish to instruct **CUE** to endlessly loop a particular section of the cue follow these steps:

Picking the Loop Point

First, you have to determine the beginning and end point of the loop. **CUE** gives you eight different loop points labeled **A** through **H**. Although there is more than one way to accomplish this, the quickest method is as follows:

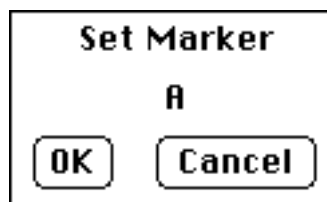
Type the bar number which you want to make your first loop point and you will see it displayed in italics under the **Bar** display. Hit the **Return** or **Enter** key and the italics will turn into regular text letting you know that your instruction

has been received. You can also click on the **Bar** number to change it, but typing is faster.

Yet another way to pick your loop point is to play the cue until you get to where you want to have a loop point. Hit the **Stop** button or the **Return** key at this point.

Marking the Loop Point

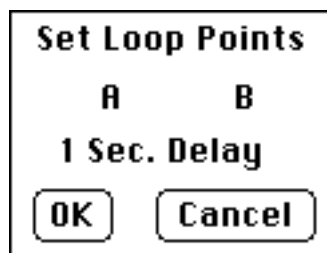
Once you have your loop point logged into the **Bar** and **Beat** display, it is time to **Mark** it. Click on the button labeled **Mark**, and the following little dialog box will appear:



You pick the letter to designate your loop point by clicking on the letter in the dialog box. Clicking on the upper portion of the letter will advance you through the alphabet (after **H** you will be returned to **A**) and clicking on the lower portion of the letter will have the opposite effect. Once you have the letter you want, click on **OK** or hit the **Enter** key. **Mark** two loop points in this manner and we will then be ready to go to the last step of actually creating the loop.

Creating the Loop

Go to the **Reel World** menu and select **Set Loop Points** in order to call up this dialog box:



Pick which letters you have marked as the beginning and end of the loop by clicking on the two letters shown, just as you did when you were marking the loop points. Then by clicking on the number preceding **Sec. Delay** to set how

long a pause (between **1** and **8** seconds) there will be before **CUE** starts playing the loop again. Click on **OK** or hit the **Enter** key and now you are ready to play your loop.

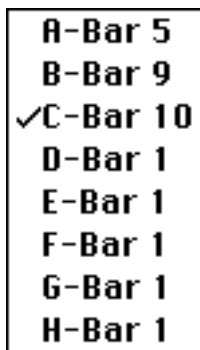
Playing the Loop

If you look at the sprocket hole marked **Loop**, you will see that the two letters you picked as the beginning and end points of the **Loop** are now shown there. Clicking on this button will start the looping process, including the built in pause you chose, until you click on the **Stop** button.

Multi-Point Search to CUE

A related function to looping is the ability to store several different points for cue playback beginnings. Use the **Mark** button to set these points up identically to the way you set your loop points. They might even be the same places in the cue. Rather than loop the selected points, we will have **CUE Start** the **Click Track** from one chosen point, and play through the cue from that point.

The locate point is picked by clicking on the **Reel World** menu and selecting **Set Locate**. When you do this, a sub-menu will appear that looks like this:



It displays the eight points you can loop or locate from, and also shows you which **Bar** each point has been set to. Selecting the one you want, will cause it to appear in the sprocket hole under the word **Locate**. Now when you hit the **Locate** button, the **Playback** window will start playing from this point. Clicking on the **Stop** button will stop the **Playback** just as if you were playing from the beginning of the cue.

Turning the Click On and Off

It is possible to turn the click track on and off as many times as needed within a given cue. This is done by editing the specific on and off points in the **Cue Sheet**. Place the cue point that you want to make your off point into the **Input** window for editing. Type a vertical line character (|) into the text entry area as the first character of the **Description**. When you click on **OK** or hit the **Enter** key, you will see the words: **CLICKS OUT** appear above that cue point in the **Cue Sheet**. Doing the same thing with the cue point where you wish the **Click** to return will result in the words: **CLICKS IN AFTER TWO WARNINGS** being placed above the **Description**.


As a guide to the musicians, the click track that has been turned off and is about to start again will be preceded by two warning clicks in the **Tempo** that's about to begin.

Playing Unaccented Clicks

Anyone who does not wish to give their musicians an accented downbeat can easily modify this default click setting by going to the **Reel World** menu and selecting **Options**. At the top of the dialog box is the phrase **Accented Downbeats**. Clicking this to the "off" position will remove the accented downbeats from the click track.

Playing a Kustomized Klick

If you don't want to use **CUE's** click sound, click on the **Reel World** menu and select **Options**.

Send Clicks as MIDI Events Channel Note 

You activate the **Send Clicks as MIDI Events** feature by entering a **MIDI Channel** number and a **Note** value from C-1 to G9. Now you can put a digital metronome click (or a dog bark) into your sampler and **CUE** will trigger that sound on every beat.

The **MIDI Event** click track is sent out the **Music Port**. Clicking on the right hand **Port** icon will change the **Music Port** from modem output to printer output or vice versa.

Scroll During Play

To reference your place in the **Cue Sheet** or the **Clicks** window while in **Playback**, a useful feature called **Scroll During Play** has been added. Go to the **Misc** menu and click on **Scroll During Play** (or simply type **Command-Opt-L**). Now go back to your **Playback** window, and **Start** your playback. Of course, you could type **Command Opt-P** and just hit the **space bar**. **Once Playback** has started, proceed to select either your **Cue Sheet** or the **Clicks** window. You will find large triangular cursors now show the active cue point, as your **Cue Sheet** scrolls down the entry list. If you selected the **Clicks** window, your measures will scroll left to right, showing each cue point and it's abbreviated description. The **Title Bar** will indicated each change of bar and tempo.

To stop **Playback**, return to the **Playback** window, hit the **Stop** button, or hit the **Return** key.

The **Scroll During Play** function is particularly useful for those with genlock capabilities. By locking **CUE** to **SMPTE**, you can superimpose the **Cue Sheet** or **Clicks** window over your video, and watch each cue point and it't description scroll by in sync with the real-time action.

Driving the Tesla BeatMaker

This is a wonderful little box that makes a click just like a digital metronome except for the fact that it is totally MIDI driven. The only difference between using it and driving a synthesizer as your click source is that the Tesla needs only a specific MIDI channel and note value in order to operate.

Select **MIDI Setup** from your **Reel World** menu. You will see a **Tesla** check point under **MIDI Click**:

MIDI Click: Synth./Drum Mach. TESLA™

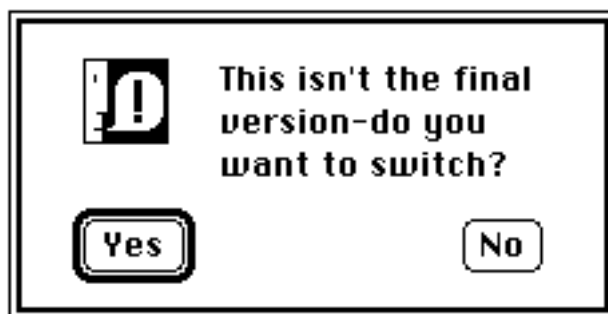
Once checked, **CUE** will automatically send out the correct note and channel to operate the Tesla BeatMaker. This feature, once selected, can be **Saved** in your **Defaults** file for regular future use.

Don't forget to click on the **Reel World** menu, select **Options**, and place a

check in the **Send Clicks as MIDI Events** box. You can now select either the **Printer** or **Modem** port, depending on which one you have **The Tesla** hooked up to. This unit not only sounds like a digital metronome, but is capable of creating flexible **Tempo** changes, including **Accelerandos** and **Ritards**.

Playing the Right Version of the Cue Sheet

When you select **Playback**, and have the **Cue Sheet** set to a **Version** other than the final one, **CUE** will beep you and give you the following choice:



If you click on **Yes**, **CUE** will switch the **Version** to the one selected as your final choice and send you to the **Playback** window. Click on **No**, and you will be sent to the **Playback** window where you can now play the non-final **Version** you have chosen. This feature has been installed to help avoid a serious error on the scoring stage.

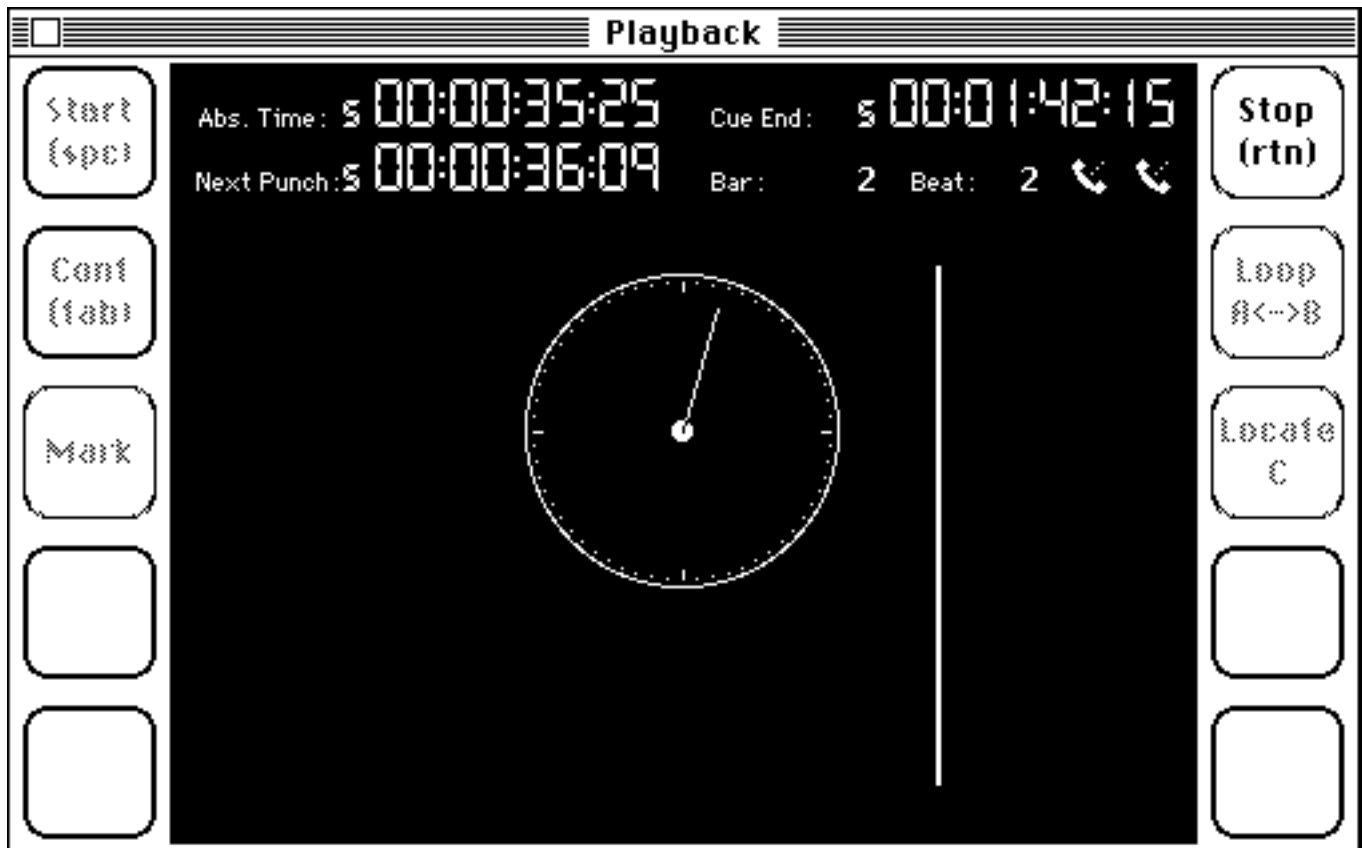
Playing Streamers and Punches

If, after figuring out all of your clicks, you decide to conduct your cue, then **CUE** can be of assistance by displaying **Streamers** and **Punches** on the **Playback** screen. You can run this **Playback** window wild, or you could lock it to SMPTE.

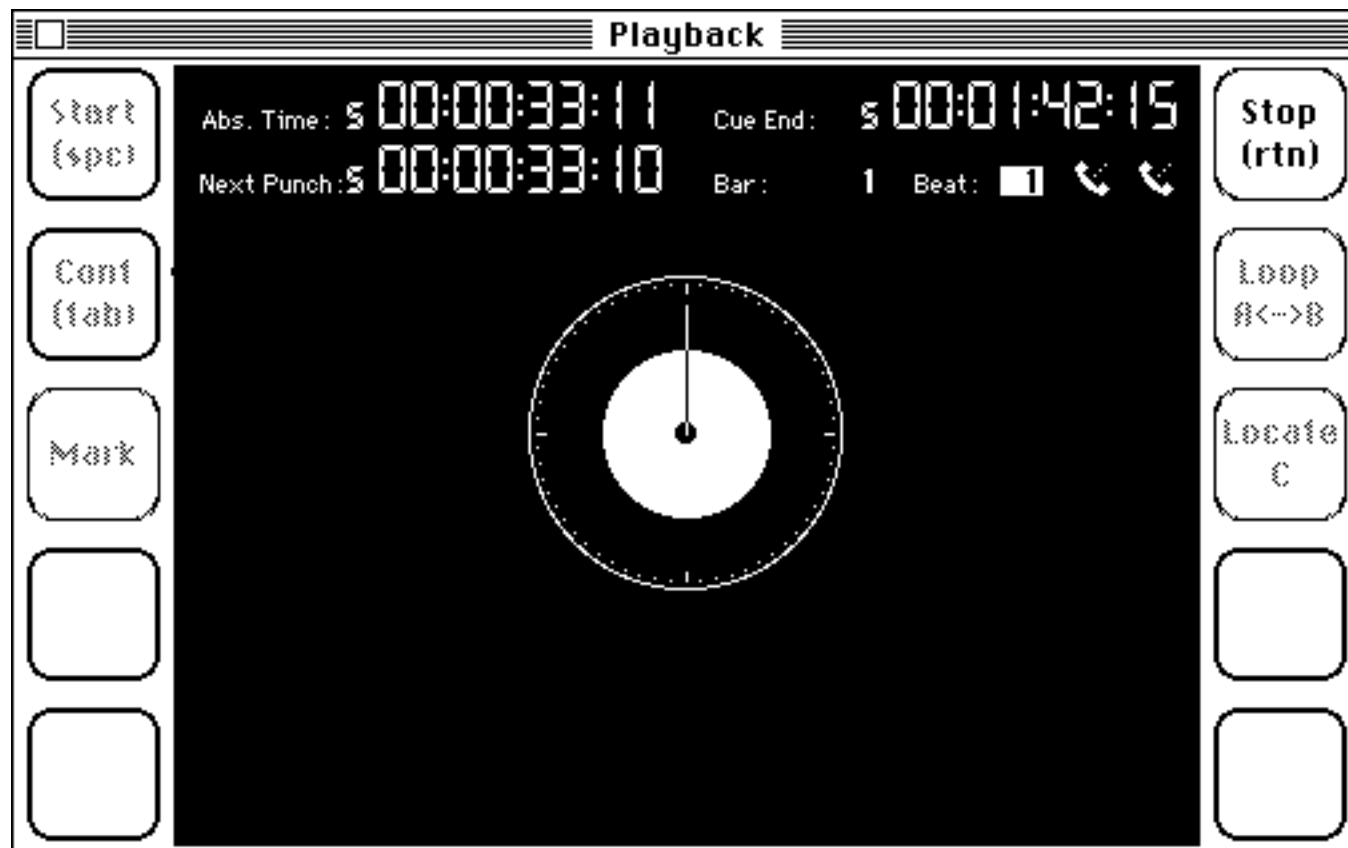
Any place in the **Cue Sheet** that has been designated as a **Key Hit** will receive a **Streamer** and **Punch**, so make sure you have edited your **Cue Sheet** in order that all the places you want **Punches** are marked as **Key Hit't**. Once you have completed this step, select **Playback** from the **Reel World** menu.

All of the procedures for playing **Streamers** and **Punches** are the same as those for playing the **Click**. In case you don't want to listen to clicks while the **Streamers** and **Punches** are unraveling, then click on the **Misc** menu and select **Clicks Off** (or hold down the **Option** and **Command** keys while typing the letter "O" in either upper or lower case).

If you only want to listen to the number of **Warning Clicks** that you have chosen in the **Set Count Off** dialog box while the **Streamers** and **Punches** are unraveling, then place the vertical **Click Off** line in the **Description** of the first cue point.(see page 182). After this you will hear no more **Clicks** and the **Stop Watch** and time counter will start. The **Beat Number** will flash on and off in the **Tempo** you have designed so you will have a good sense of what the **Click** is even though you can't hear it. As you come up to a **Punch**, a **Streamer** will animate across the screen from left to right:



When the **Punch** hits, the screen looks like this:



The **Next Punch** display will be updated as each punch hits.

Streamer Options

It has become so common to work and conduct with video copies of a film, that methods of sending traditional visual **Streamer** information to the outside world have gained increasing importance. If you click on the **Reel World** menu and select **Streamer Options**, you will find that **CUE** has set up it's visual **Streamers** found in the **Playback** feature, to be sent out as MIDI information:

Streamer Options

Send Streamers as MIDI Events Channel **1** Note **E5**

Streamer Length: **3 Feet** **4 Feet** **5 Feet**

Punch Only: **Single Punch** **3 Hole Flutter** **5 Hole** **7 Hole**

Punch Size:

OK **Test** **Cancel**

To send streamer information out as MIDI events, check the **Send Streamers as MIDI Events** box and select **Channel**, **Note** and **Port** information so that it conforms to your outboard streamer device requirements.

Varying the Streamer Length

You have a choice of clicking on either **3**, **4** or **5** foot **Streamers**, depending on the length of visual warning you prefer, and the streamer purpose in your application. After the **Streamer** length has been changed, remember to click on **OK** or hit the **Enter** key.

Varying the Punch Type and Size

There are several punch types to choose from in the **Punch Only** line. These govern how the Tesla Streamer Box will display **Key Hit't** that are set to **Punch Only** in the **Input Window** of your **Cue Sheet**. When the **Key Hit** box is checked, the pop-up menu is activated behind the **Default Streamers** box.

Release the mouse button on **Punch Only** when you wish to activate this feature for your cue point. The Mac **Playback** screen will always do single punches when in the **Punch Only** mode.

You will also see that there are three different **Punch Sizes** to choose from in this dialog box. Select the one you want to see displayed and click on **OK** or hit the **Enter** key. This feature is designed both for your external Streamer Box, and the **Playback** screen punch size.

Along with the **OK** and **Cancel** buttons at the bottom, you will see a center button marked **Test**. Clicking here will trigger a Tesla Streamer box flutter punch followed by a streamer and punch set according to your settings in this **Streamer Options** dialog. The **Test** button is designed specifically for the Tesla unit, which will be described more fully in following sections of this chapter.

Even if traditional **Punches** and **Streamers** are being scribed on the film you are working with, the **Playback** window will still provide a means to practice conducting difficult cues before the session as well as letting you check the musical validity of your approach.

Projecting Streamers/Punches on Video

The Tesla Streamer Box

Hardware is now available that will place beautiful **Streamers** and **Punches** over the video you are working with. The best streamer box currently on the market is the **Tesla Streamer Box**. Not only does it superimpose perfect streamers over any video, but it also does so in color. One of the best features of this box is that it can produce color streamers even if you have a black and white computer such as the **Mac Plus** or **SE**. **CUE** and the **Tesla Streamer Box** are designed to work together. In fact there are no switches or knobs on the **Tesla Box**. All of its commands are contained in **CUE**.

There are three places in **CUE** that have **Tesla Box** commands.

1- Selecting **Streamer Options** from the **Reel World** menu provides you with the ability to modify **Streamer** length, **Punch** size and whether you want to have **Flutter Punches** on cues marked **Punch** only. This is also the dialog box that you use to establish your basic link with the **Tesla Box**. You do this by clicking on the the box next to **Send Streamers as MIDI Events**. When you make this

connection with the **Tesla Box**, it is not necessary for you to select a specific MIDI channel or note value, but it is important that the **Sync Port** button to the right of the **Note Value** entry box, matches the port you choose for the **Tesla-Macintosh MIDI Interface** connection. (You change the icon from one port to the other simply by clicking on it.)

2- In the **Input window** of your active **Cue Sheet**, directly above the **OK** and **Clear** buttons is a pop-up menu labeled **Default Streamer**. When you click on the **Key Hit** box of a new cue point, the **Default Streamer** box becomes enabled. This is what enables you to give instructions to the **Tesla Box** as to what type of streamer you want to appear at different points in your cue.

Now click on this box while holding the mouse button down. You will see a list of different **Streamers** to choose from:



Select the streamer you want for this **Key Hit** cue point by releasing the mouse button over **Warning**, **Downbeat**, **Internal**, **Ending**, **User 1**, **User 2**, **Default** or **Punch Only**. When you release the mouse button, the Streamer selection will be reproduced inside the button.

If **Default Streamer** is chosen **CUE** will determine the correct type of streamer based upon the placement of the cue point in the **Cue Sheet**. **User Streamers 1** and **2** are optional features for your own musical purposes within the cue. **Flutter Punches** are one of the features in **CUE** that only work with the **Tesla Box**.

When you click on **OK** in the **Input** window, the correct streamer request will be forwarded to the **Tesla Box** during playback of the cue.

Set Streamer Colors

3- For those of you who have a Macintosh with color card and monitor, the **Playback** screen can provide several color options for you to work with. Go to the **Reel World** menu and select **Set Streamer Colors**. The following display will appear:

Streamer Type	Color
<input checked="" type="radio"/> Warning Streamer	<input type="radio"/> Brown
<input type="radio"/> Downbeat Streamer	<input type="radio"/> Red
<input type="radio"/> Internal Streamer	<input type="radio"/> Orange
<input type="radio"/> Ending Streamer	<input checked="" type="radio"/> Yellow
<input type="radio"/> User Streamer 1	<input type="radio"/> Green
<input type="radio"/> User Streamer 2	<input type="radio"/> Blue
	<input type="radio"/> Violet
	<input type="radio"/> White
<input type="button" value="OK"/>	<input type="button" value="Cancel"/>

Click on a particular streamer whose color you want to change and then click on which of the eight specific colors you want to select. You can modify as many of the streamers as you want by following this same procedure for each one. When the desired adjustments in streamer colors have been made, click on **OK** or hit the **Enter** key. If you do not wish to make any of the changes you have selected, then click on **Cancel** key and the **Set Streamer Colors** choices will remain as they were previously set. Streamer colors can be saved with your defaults.

CUE is set to default to fairly widely accepted colors for the **warning**, **downbeat** and **ending** streamers, but that shouldn't stop you from getting creative and tailoring the streamers to fit your individual situation.

A Third Approach to Streamers

Another type of box you can employ to superimpose streamers over video is a relay triggered device like the **Video Streamer** made by **CB Electronics** (an English firm). Although the streamers are fat and easy to see, there are several drawbacks to the use of this type of device. It does NOT employ MIDI to communicate with the outside world, and does not have color streamers. It also doesn't allow as much control from cue. However, it IS possible to buy a MIDI-to-relay interface like the **Cooper Electronics MIDI Mute** and make the proper cables for it's connection to **CUE**. This interconnection may involve some extra time and money, but if you already have a Video Streamer, or similar unit, we've heard it may well be worth the effort.

To use the **Video Streamer**, you must set up **CUE** to send out a trigger instruction via MIDI. If you select **MIDI SETUP** from the **Reel World** Menu, you will see the following dialog box:

MIDI SETUP	
Music Port: <input checked="" type="radio"/> Modem	<input type="radio"/> Printer
Sync Port: <input checked="" type="radio"/> Modem	<input type="radio"/> Printer
Sync Box: <input checked="" type="radio"/> SBH-80	<input type="radio"/> JamBox/4
<input type="radio"/> Time Commander	<input type="radio"/> PPS-100
SMPTE Gen: <input checked="" type="radio"/> TC Machine/Studio 3	<input type="radio"/> JamBox/4
<input type="radio"/> Time Commander	
Streamers: <input type="radio"/> Relay Triggered	<input checked="" type="radio"/> TESLA™
MIDI Click: <input checked="" type="radio"/> Synth./Drum Mach.	<input type="radio"/> TESLA™
<input type="button" value="OK"/>	<input type="button" value="Cancel"/>

Select the **Relay Triggered** option for the **Streamers** option at the bottom of the box. Click on **OK** and move to the **Streamer Options** box in the **Reel World** menu. **Midi Channel**, **note**, and **port** must all be set to conform to the **MIDI Mute** inputs.

You will need to follow the **CB Electronics** manual to set the streamer length for your different cue points. Select one relay from the **MIDI Mute** to be triggered by a specific MIDI keyboardnote (like C1 or A4). Send your relay out by properly wired connector and you can use the CB Streamers.

Locking to Picture - MIDI Time Code

Thanks to MIDI Time Code, **CUE** can now be locked to SMPTE Code provided that you have acquired a MIDI Time Code Box to connect between your MIDI interface and the SMPTE source. Opcode makes two very good alternatives for accomplishing this. One is the **Studio 3** and the other is called **The Timecode Machine**. Both of these work in conjunction with **CUE** as well as generate various forms of SMPTE and regeneration of SMPTE Time Code. Several other companies offer versions of this essential little device.

The hookup chain of command for SMPTE and MIDI connection is as follows: run your SMPTE audio source into the MIDI Time Code Box. The MIDI out of the **Timecode Machine** gets plugged into the MIDI input of your Macintosh interface device (like your **Studio 2**). With the **Studio 3**, simply connect the SMPTE signal to the Audio Input in the back of the unit. No other MIDI/SMPTE connection need be made. Both the **Timecode Machine** and the **Studio 3** have audio SMPTE signal outputs which can generate or regenerate the SMPTE code when needed.

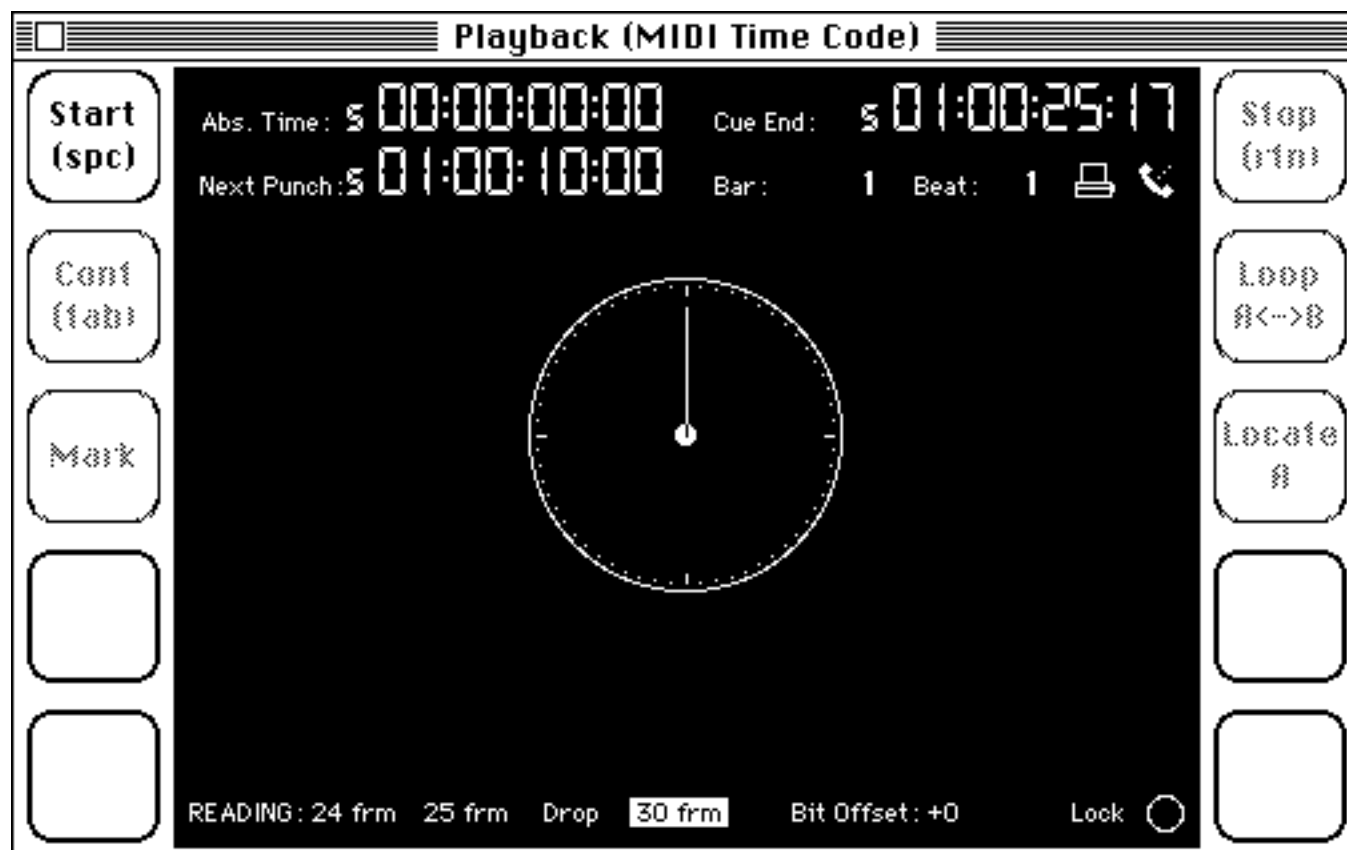
CUE will adjust to the SMPTE format it is reading without causing you to change any format settings. For example: you could take timings in 30 frame SMPTE and use 30 frame **Tempo Format** and then go to Europe to record where you could lock to 25 frame SMPTE without making any changes to the **Cue Sheet**.

Click on the **Reel World** menu and select **MIDI Setup**. When that dialog box appears, set the **sync port** to whichever port the cable is hooked into and then click on **OK** (or hit the **Enter** key).

Next, click on the **Reel World** menu and select **Options**.

When the dialog box appears, click on the **Lock to Time Code** circle, and then punch the **OK** (or hit the **Enter** key). Two other ways to **Lock to Time Code** are selecting **Lock to Time Code** from the **Misc** menu, or simply typing **Command-E**.

After completing whichever one of these operations you choose, click on the **Reel World** menu and select **Playback**.



Notice that the **Playback** window title bar now has added the words: (**MIDI Time Code**) and that there is some additional information displayed at the bottom of the dialog box which includes a listing of the selected SMPTE format, a **Bit Offset** display and a SMPTE **Lock** indicator.

As soon as you click on start in this window, and send a SMPTE signal from your external device, **CUE** will recognize the type of SMPTE being sent and highlight it for you in this **READING** area.

The **Bit Offset** can be set by holding down the **Command** and **Option** keys and then hitting either the **plus** (or =) or **minus** key. Holding the plus or minus key down will cause the **Bit Offset** to cycle in whichever direction you have indicated. This lets you make adjustments of up to 79 bit't in either direction that will not affect any of **CUE**'s calculations. A main reason **Bit Offset** is provided is to deal with a MIDI lag, a slow speaking instrument or a cue that for whatever reason needs a very minor **Offset** to settle into a perfect place.(You can also set

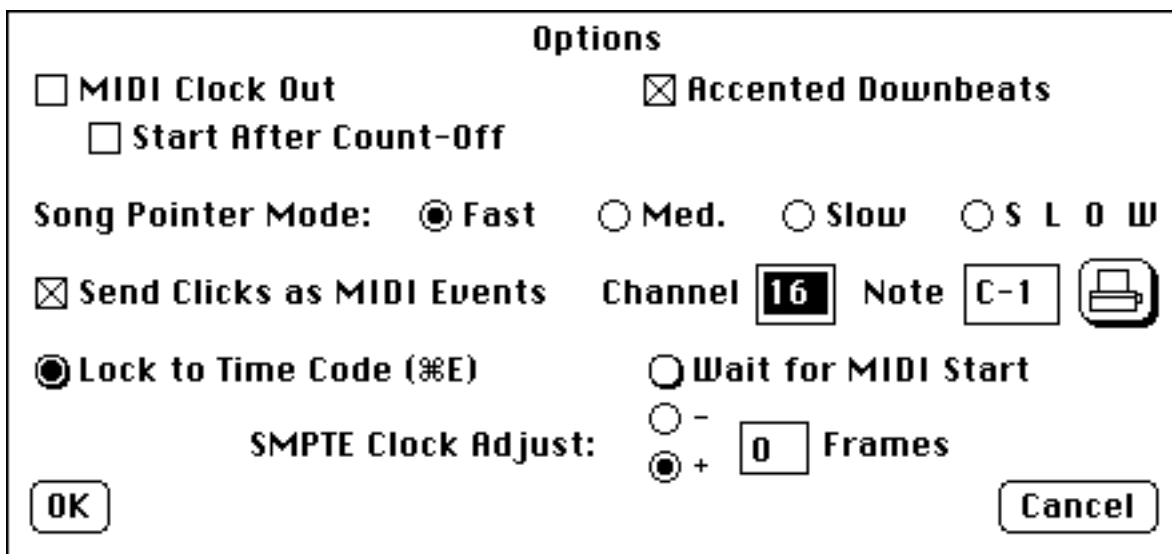
the **Bit Offset** by typing a number into the appropriate place in the **Set Offset** dialog box, but as long as you are already in the **Playback** mode, the first method described seems more convenient.)

The circle to the right of the word **Lock** will light up when **SMPTE Lock** has been achieved.

The **Playback** window will stay in **Play** mode until you hit **Stop** or until it receives SMPTE numbers that are more than ten minutes past the time that marks the end of the cue. This means that you can run back and forth within the cue and **CUE's Playback** will follow along without you having to hit the **Start** button every time before you roll videotape. (If you want to manually halt the **Playback** you can do so by hitting the **Stop** button). Because the window is now following SMPTE, the **Cont (Continue)** button will not appear in this mode.

Your Options Options;

There are several choices available to you in the Options dialog box which have not yet been discussed. **Send Clicks as MIDI Events**, **Lock to Time Code** and **Accented Downbeats** are covered on pages 183 and 194 of this chapter. Lets look at some of the other features in this box. Click on the **Reel World** menu and select **Options**:



MIDI Clock Out

Having **CUE** output **MIDI Clocks** is done exactly like playing **Clicks** or **Streamers and Punches** with the exception of one preparatory step. Click on **MIDI Clock Out** and then on **OK** (or hit **Enter** key). You will now be sending **MIDI Clocks** through your Sync Port while **Clicks** are simultaneously being sent through the Mac audio out mini-phone jack.

If you have not programmed a countoff into your sequencer or drum machine but want **CUE** to play an audible countoff before the MIDI clocks and the music starts, and click on **Start After Count Off**.

Setting Your MIDI Clock

I know you thought that you would never have to adjust your digital clock, but you probably didn't read the fine print on the packaging. All sequencers are not created equal, and sometimes even the same sequencer can have a different response rate to **MIDI Song Pointers**, depending on the complexity of the sequence.

The problem you may encounter as a result of different reaction rates to **Song Pointers** is that a slower sequencer may miss the **Continue** command and either not start playing or react in some bizarre manner.

Next to **Song Pointer Mode**, you will see four choices from **Fast** to **S L O W**.

Song Pointer Mode: **Fast** **Med.** **Slow** **S L O W**

Clicking on one of the choices other than **Fast**, will progressively slow down the amount of time that **CUE** wait't between sending the song pointer it's **Continue** command.

Receiving a MIDI Start Command

If you are scoring to film, cannot lock to SMPTE or don't have a compatible sync box, there is another not quite so perfect option available to you for starting your **CUE** playback synchronously with an external MIDI device. Put **CUE** in MIDI start mode by checking on the **Wait for MIDI Start** check box, and then hit start on your **Playback** screen.

Lock to Time Code (⌘E)

Wait for MIDI Start

By programming the sync box to start at the correct SMPTE number you can have it send **CUE** a **MIDI Start Command**, which will start the **Click, Streamers and Punches** and **MIDI Clock** at precisely that time. The main difference is that after the start message, **CUE** will be running free. Our tests have shown **CUE** to be extremely accurate, but of course it is not as sure a thing as an actual SMPTE lockup.

When in MIDI Start mode, **CUE** will start on any MIDI Note On command, or with the **Opcode Studio Three** footswitch no. 1. **CUE** reacts much faster to these signals than to the space bar, so you can gain an extra measure of precision with this feature.

Doing a Dump (to Your Sync Box)

If you want to use an external sync box to control your sequencer it is possible to do a system exclusive dump to either the Roland SBX-80, Garfield Master Beat and Time Commander, the Southworth JamBox/4 and the J.L. Cooper PPS-100.

You can select the specific sync box you own by clicking on the **Reel World** menu and selecting **MIDI Setup**.

MIDI SETUP

Music Port: Modem Printer

Sync Port: Modem Printer

Sync Box: SBX-80 JamBox/4
 Time Commander PPS-100

SMPTE Gen: TC Machine/Studio 3 JamBox/4
 Time Commander

Streamers: Relay Triggered TESLA™

MIDI Click: Synth./Drum Mach. TESLA™

Click on the sync box you wish to use and then click on **OK** or hit the **Enter** key. Make sure that your **Sync Port** is set to the same output port as your **Sync Box**.

Once you have confirmed your connections, click on the **Reel World** menu and select **Xfer to Sync Box**.

If you have not yet selected **MIDI Setup**, the **MIDI Setup** dialog box will open automatically so you can choose between the printer and modem ports and pick the proper sync box before **CUE** does the dump.

The actual dump is completed by selecting **Xfer to Sync Box** from the **Reel World** menu.

How to Do It With the SBX-80

Here is some some specific assistance with a system exclusive dump to the SBX0-80:

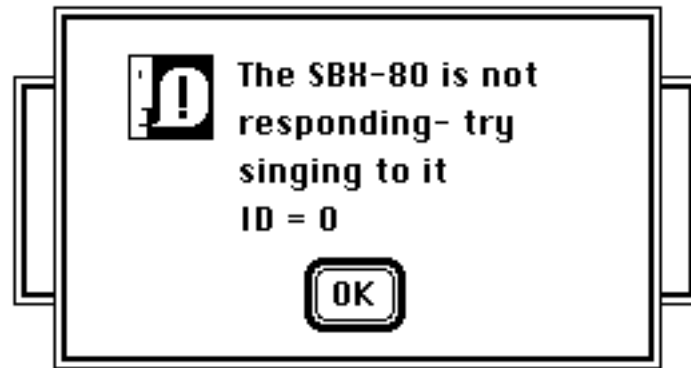
1- Connect the MIDI out from your MIDI interface to MIDI in of the SBX-80

2- Connect the MIDI out from the SBX-80 to MIDI in of your MIDI interface

Remember to connect both the MIDI IN and OUT of your SBX-80 to the port chosen as **CUE's sync** port on the MIDI interface. Also, be sure that if your SBX-80 was set at the factory for 30 fps that you select either 30 or 29.97 for your **Tempo Format**. If it was set for 25 fps, then that would be your choice (see page xxxold 68).

3- Before you select **Xfer to Sync Box** from the **Reel World** menu, make sure the switch on the SBX-80 labeled **Tape** has been pressed. This will cause the Save, Verify or Load selections to light up.

4- Select **Xfer to Sync Box**. When the dump has taken place successfully, the readout on the SBX-80 will display the word: **Done**. If there is a problem, a dialog box will appear informing you gently of this:



5- Before you playback the SBX-80, the **Play** button must be on. If you have forgotten to toggle from **Tape** to **Play**, the SBX-80 will think it is time to start dumping stuff to it's cassette.

The SBX-80 is one of the only sync boxes that needs a two-way connection for the system dump to be completed (although you will probably have two cables connected anyway so you can playback to your sequencer).

Using Other Sync Boxes

If you are using a sync box other than the SBX-80, you may find that the system dump procedure is somewhat more straightforward. Refer to the manual that hopefully came with your sync box for set-up instructions including whether you can dispense with the SBX-80's **Tempo** format restriction .

9 Sound Effects & Other Reel World Features

The MIDI Event Trigger

CUE can function as a very specialized "sequencer" designed to turn any MIDI accessible sound on and off at specified SMPTE numbers. It simplifies the laying in of sound effects to a tremendous degree and like so many other aspects of CUE is tied in with the cue points that are entered as part of the **Cue Sheet**. We'll take a brief look at the layout of the **MIDI Events** box as an overview, and then go into specifics.

You can create and store up to 40 separate **MIDI** events, each one of which may be triggered as many times as you wish. When you click on the **Reel World** menu and select **MIDI Events** the following window will appear:

The screenshot shows a window titled "MIDI Events". It contains a table with the following data:

#	Description	Channel	Note	Level	Duration
1	Event #1	1	C5	127	1.00
		1	C5	127	
		1	C5	127	
		1	C5	127	
		1	C5	127	
2	Event #2	1	C5	127	1.00
		1	C5	127	
		1	C5	127	
		1	C5	127	
		1	C5	127	
3	Event #3	1	C5	127	1.00
		1	C5	127	
		1	C5	127	
		1	C5	127	
		1	C5	127	
4	Event #4	1	C5	127	1.00
		1	C5	127	
		1	C5	127	
		1	C5	127	
		1	C5	127	

At the bottom of the window, there is a text field containing "Event #1", a "Clear" button, a "Play" button, and two checkboxes: "MIDI Input" and "Link to Cue".

Each of the 40 **MIDI Events** lets you enter a **Description**, a **MIDI Channel Assignment** from 0-16, a **Note name**, a **Volume Level** from 0-127 and a **Duration** whose time format will match the way you have set the **Relative** column of timing information in the **Set Formats** dialog box. Also notice that every **MIDI Event** lets you access up to five different notes on up to five separate **MIDI Channels per Event**.

Clicking on any one of these parameters will highlight it and place the existing entry into the **Text Entry** box at the bottom left where you can now replace or modify it. After you have updated a parameter, hitting the **Enter** key, the **Tab** key or clicking on another parameter will replace the existing text with your new entry. If you want to cancel what you have just typed or played without actually entering it, click on the **Clear** button to the right of the **Text Entry** box, and it will return to it's original setting. Whenever you click on the **Clear** button, information in the entry box at left will be highlighted for re-edit.

There are several other buttons and check features at the bottom of your **MIDI Event** window to help you place and edit the **MIDI Events**.

The **MIDI Input** check box will enable you to enter notes from an external MIDI keyboard when checked. This check box will be activated only when a **Note Name** is highlighted in the **Text Entry** box at left. With a **Note Name** highlighted, and a check placed in this box, you can enter your notes via external musical keyboard. Use the mouse to click around your screen events, placing a different event into the **Text Entry** box, and modifying it via your keyboard. A second click on the **MIDI Input** box will return your screen to it's original mode, and disconnect the keyboard.

The central **Play** button in the **Midi Events** box will bring up a separate dialog box giving you several different choices for **Playback** control, as well as a view of what event is currently active.

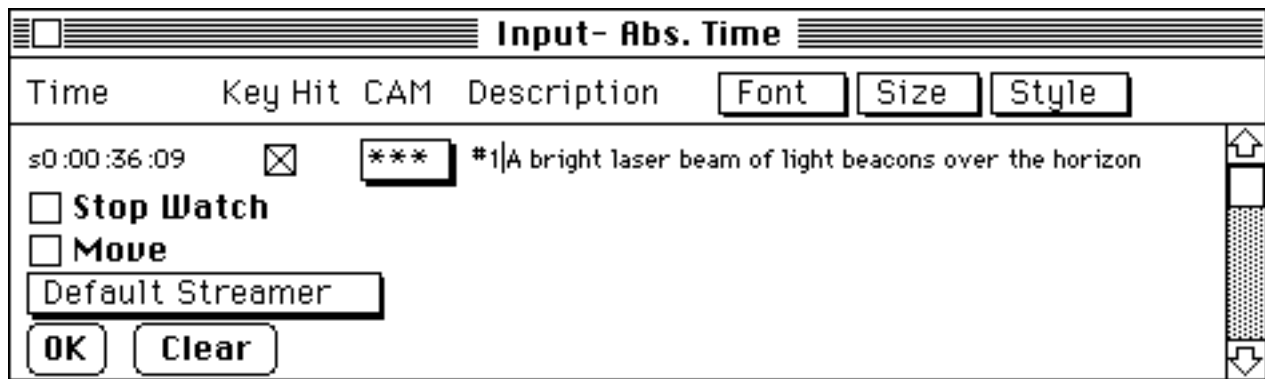
A check in the **Link to Cue** box will allow you to **Save** your **MIDI Event** information as part of your **Cue Sheet**.

Lets look at the process in more detail:

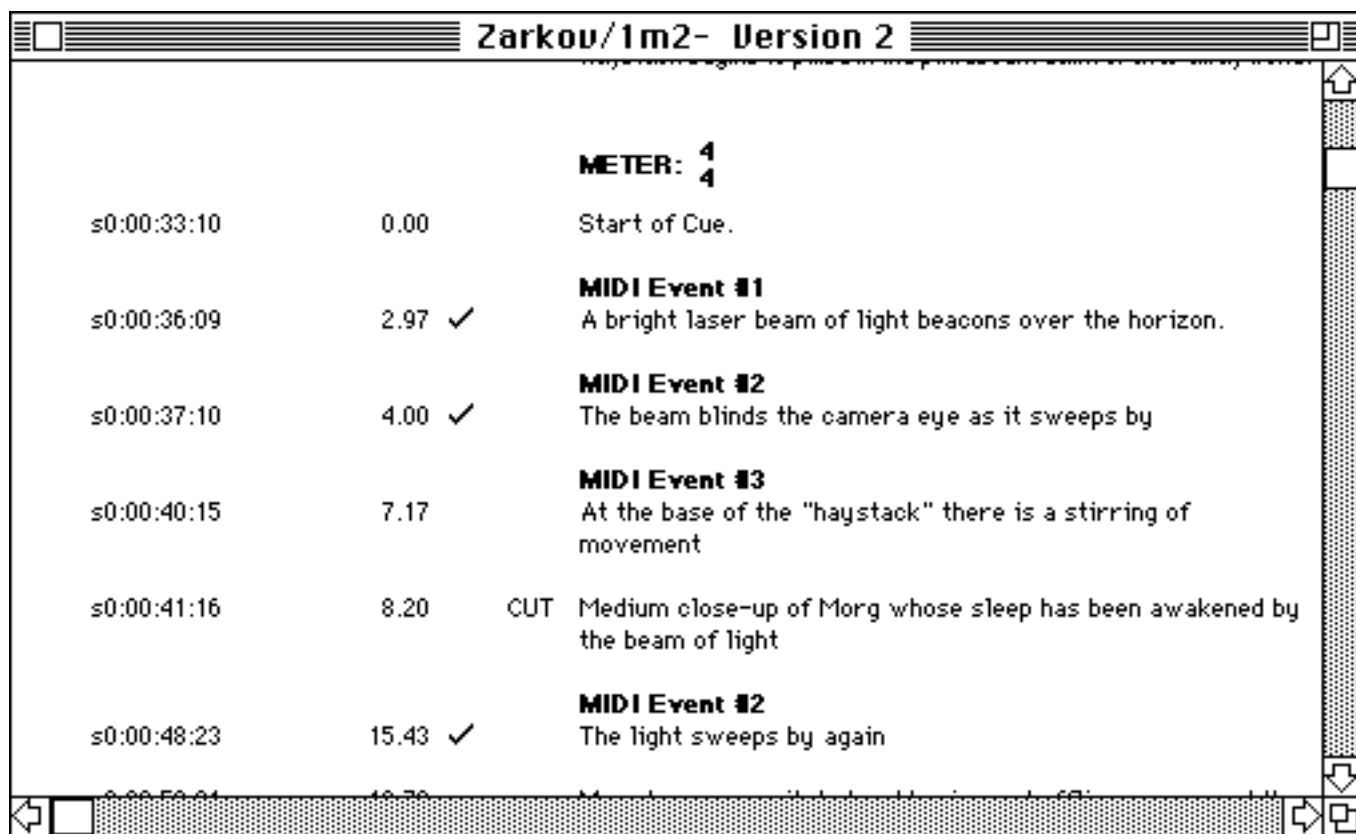
How to Use the Event Trigger

The starting point for creating an event trigger sequence is the **Cue Sheet**. You may want to prepare a **Cue Sheet** whose sole purpose is to provide timing points. This list will then be used as MIDI Event Triggers. Or, you may want to work with a more general music **Cue Sheet** and modify it to interact with the MIDI Event trigger.

For an example let's use **Zarkov/1m2** once more, and create a few **MIDI Events**. The only difference between entering standard cue point descriptions and entering **MIDI Event** descriptions is that the text you type into the **Input Window** must be preceded by the number sign (#) and the number of the **MIDI Event**. Click on the cue point at **s00:36:09** so that it appears in the **Input Window** and type **#1** before the existing description.



When you click on **OK** or hit the **Enter** key, that cue point will appear in the **Cue Sheet** with the words **MIDI Event #1** typed in bold just above it. Let's enter a few more **Event Triggers**. Type **#2** in front of the description of the cue point at **s00:37:10**, make the cue point at **s00:40:15**, **MIDI event #3**, and since the sound for the cue point at **s00:48:22** will be the same sweeping sound as the event at **s00:37:10**, type **#2** before the description so that **CUE** will play **MIDI Event #2** for both cue points. This part of your **Cue Sheet** should now look like this:



We are now ready to work on the specific trigger designations for these cue points so select **MIDI Events** from the **Reel World** menu. The description for event #1 will be automatically selected when the window comes up. Type: **laser whine** into the highlighted text entry space at the bottom of the dialog box and click on the description for event #2 in the upper part of the window. The description for event #2 will now be selected for text entry and the words: **laser whine** will have been entered as the description of event #1. Another way to enter an item in the **MIDI Events** window is to hit the **Tab** key which will enter what you have typed and highlight the next box in line. (You could also have entered **laser whine** by hitting the **Enter** key, but this becomes an unnecessary keystroke if you are entering multiple items.)

Next, let's type in: **laser sweep** as the description of event #2 and: **haystack rustle** as the description for event #3.

#	Description	Channel	Note	Level	Duration
1	laser whine	1	C4	127	1.00
		1	C4	127	
		1	C4	127	
		1	C4	127	
		1	C4	127	
2	laser sweep	1	C4	127	1.00
		1	C4	127	
		1	C4	127	
		1	C4	127	
		1	C4	127	
3	haystack rustle	1	C4	127	1.00
		1	C4	127	
		1	C4	127	
		1	C4	127	
		1	C4	127	

Return to the **Cue Sheet** by clicking on the close box in the leftmost portion of the title bar, and you will see that the **MIDI Event** descriptions which you entered are now a part of the **Cue Sheet**:

		METER: 4 4	
0.00		Start of Cue.	1.00
2.97	✓	MIDI laser whine A bright laser beam of light beacons over the horizon.	7.20
4.00	✓	MIDI laser sweep The beam blinds the camera eye as it sweeps by	9.34
7.17		MIDI haystack rustle At the base of the "haystack" there is a stirring of movement	15.96
8.20		CUT Medium close-up of Morg whose sleep has been awakened by the beam of light	18.10
15.43	✓	MIDI laser sweep The light sweeps by again	33.20

We will not make specific suggestions for changing the other parameters in the **MIDI Events** window. You can click on, highlight, and alter each **Channel**, **Note**, and **Duration** entry. Within each **MIDI Event**, you can use the **TAB** key to move from one value to the next. Change several **Event** designations and values to get comfortable working with this window.

Note: If you are not going to send information to all five **Channels**, entering a zero (0) for the **Channel** number will turn off that note and the ones below it.

The Shift Key - Making Blanket Entries

If you want to modify all five **MIDI Events**, **Channels**, **Notes** or **Levels** of a particular **Event** at the same time, select any one of the five parameters under the column you wish to update, type the new information into the text entry space, hold down the **Shift** key and hit the **Enter** key. You will see the new number appear in all five places. This will save you many keystrokes particularly when you are playing around with shifts of pitch and volume.

Proportional Changes

If you have entered a complex **MIDI Event** with different volumes and pitches and you want to shift them up or down but maintain the same relationships that you have already developed, you can do so. Select one of the five channels in the column you want to change and then type into the text entry space a plus or minus followed by a number. When you hold down the **Shift** key and hit the **Enter** key, the specific number you entered will be added or subtracted to all five parameters. If you are making a change in the **Notes** column, the number you enter represents half steps.

Hitting the **Enter** key without holding down the **Shift** key will modify the single entry you have highlighted without affecting the rest of the column.

Entering Note Values With a MIDI Keyboard

If you want to use your MIDI keyboard to enter note values, there are three small steps involved. The first is to make sure that your MIDI keyboard is connected to CUE's **Music Port**. You can do this by clicking on the **Reel World** menu and selecting **MIDI Setup**:

MIDI SETUP	
Music Port:	<input checked="" type="radio"/> Modem <input type="radio"/> Printer
Sync Port:	<input checked="" type="radio"/> Modem <input type="radio"/> Printer

Click on **Modem** or **Printer** under **Music Port**, depending on where your cable is connected and then click on **OK** or hit the **Enter** key.

The second step is to click on whichever **Note Name** you wish to modify.

The third step is to click on **MIDI Input** at the bottom of the **MIDI Event** dialog box so that it is toggled on. When you do so, **Clear**, **Play** and **Link to Cue** will disappear from the bottom of the dialog box until you turn the **MIDI Input** off. (If you have not chosen a **Note Name**, CUE won't allow you to turn on the **MIDI Input**). Since the scroll bar will also vanish, be sure you have the **MIDI Events** you wish to work on totally visible on the screen.

At this point, whatever note you hit on your keyboard will appear both in the text entry box and in the location you selected in the **Notes** column. This action will also enter the corresponding volume level for the note you just played. (When you are using a keyboard as your entry device it is not necessary to hit the **Enter** key to place a **Note Name** into the **MIDI Event** window).

If you hold down the **Shift** key while you are playing a single note on your keyboard, that note and it's volume level will be placed in the selected **Note Name** and **Level** locations and the **Note Name** directly below them will be selected.

When a note is played on your master keyboard, CUE will send it back out on the listed channel so you can hear it being played by the instrument it was intended for.

Entering Chords

When you hold down the **Shift** key and play up to five notes on the keyboard, they will be entered sequentially into the **Note Name** column. If you have selected one of the last four **Note Names** possible within a particular **MIDI Event** and play more notes than you have room for, **CUE** will wrap around and overwrite the starting **Note Name** in that **MIDI Event**.

Copying & Pasting Events

At the far left of the **MIDI Event** window is a column where the different **MIDI Events** are numbered. If you click on a specific event number to highlight and select it, and type **Command-C** (or select **Copy** from the **Edit** menu), you will **Copy** all the data concerning that particular **MIDI Event**. Selecting the number of the **MIDI Event** you want to **Paste** it into and typing **Command-V** (or select **Paste** from the **Edit** menu), will create an exact duplicate. This is useful if you want to have two events that are the same in all respects except for a few minor differences.

You will find it easier to copy, paste and make changes than to enter all the information from scratch.

Link to Cue - How to Save Your MIDI Events

It is necessary for **Link to Cue** to be toggled "on" in order for you to save your **MIDI Event** information. If that has been done, then when you save the **Cue Sheet**, you will also save the **MIDI Event** information along with it.

WARNING NOTE: Although **Link to Cue** toggles "on" automatically with your first entry in the **MIDI Event** window, it is a good idea to be sure that it is on before you save the **Cue Sheet** because if you have inadvertently toggled it off, the **MIDI Event** information will not get saved and when you close this cue all your work will be lost.

Link to Cue exists because the **MIDI Event Trigger** takes up a sizeable quantity of disk space; nearly as much as the whole rest of the **Cue Sheet**. Since the **MIDI Event Trigger** is a specialized use of **CUE**, there is no point to automatically allocating such a large amount of disk space unless you are actually

going to use it. With the **Link to Cue** feature, **CUE** won't use this extra disk space unless you tell it to do so by making an entry into the **Event Trigger** or by toggling on **Link to Cue** manually. This permit't you to fit the maximum amount of cues possible on to a single disk.

Checking the Music and Sync Port setups

If you have not already checked, make sure that you have the **Music Port** and **Sync Port** set correctly. Typing **Command]** (right bracket key **]**) will toggle the **Sync Port** between Printer and Modem. **Command [** (left bracket key **[**) will toggle the **Music Port** in the same manner. A reminder of these keystrokes can be found in the **MISC** menu.

A long way to accomplish this operation is to select the **Reel World** menu and click on **MIDI Setup**. Set up your ports according to how your equipment is connected, click on **OK** or hit the **Enter** key. Now that you have assured a clear path to the sampler containing the sound effects you wish to trigger, you are ready to play the sequence.

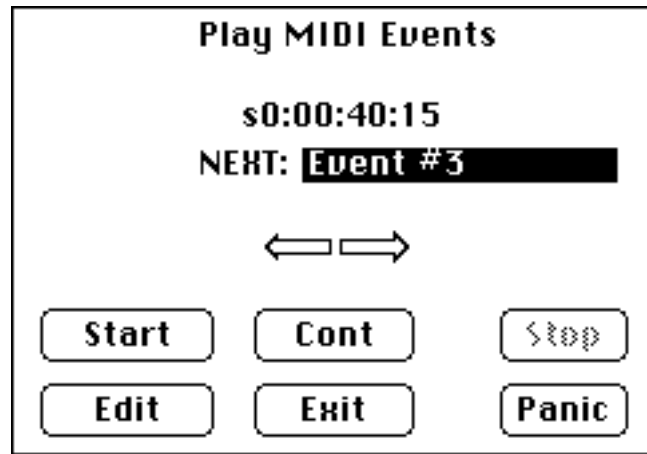
Throughout **CUE**'s many windows and dialog boxes, there are buttons for toggling the **Music** and/or **Sync Port** selections. Its almost **Playback** time. Do YOU know where your **Port Setups** are (connected to)?

Auditioning a MIDI Event

To hear a brief **Audition** of a specific **MIDI Event** from the **MIDI Events** window, select (click and highlight) the **MIDI Event** number which appears to the left of the event you wish to hear, and below the **#** column in the display. Once the number is highlighted, hold down the **Shift** key and hit the **Play** button. The selected **MIDI Event** will play for it't listed duration, or until you click the mouse again, whichever comes first.

Playing the MIDI Events Sequence

By hitting the **Play** button at the bottom of the **MIDI Event** window the **Play MIDI Events** dialog box will appear:



Note: While this may seem obvious, remember that if you have not selected cue points to be specific **MIDI Events**, nothing will happen when you click on the **Play MIDI Events** function buttons of this window.

Start and **Stop** do exactly what they say, and **Exit** removes this dialog box from the screen. If you **Exit** from this box while events are playing, they will keep on going, even if you continue to edit other cue points. You can **Stop** events by returning to the **Play Events Dialog** box (hitting the **Play** button again) and hitting **Stop**, selecting **Stop Playback** in the **Misc** menu, or simply typing **Command Return** (command key and return key).

Cont (continue) allows you to play the **MIDI Event Sequence** from a place other than the beginning of the cue. This is where the use of the two opposite facing arrows comes in. Clicking on the arrow facing to the right will let you move forward through the sequence of **MIDI Events** in the same order that you have arranged for them to appear in the **Cue Sheet**. Clicking on the left facing arrow will have the opposite effect, allowing you to step backwards through the **MIDI Events** until you return to the first event in the sequence. The left and right arrows found on Macintosh keyboards duplicate the function of these on-screen arrows, saving both time and excessive clicking. Holding one of the Mac arrows down will keep **CUE** scrolling through your **MIDI Events**.

If you choose to stop in the middle of a **MIDI Event** playback, hitting **Cont** will start the playback again from that point. When you scroll to the particular **MIDI Event** that you would like to begin listening from, clicking on the **Cont** button will start the sequence from that point, whether or not you had clicked on **Start** before.

If you are working with a large **MIDI Events** list, there is a quick way for you to reach a specific event without having to click through them one at a time. Typing any digit from 1 through 9 will move you forward from where you are in the **Event** list by that amount. If you type a **Command** 1 through 9, **CUE** will move you back by that amount in your **Event** list.

The **Panic** button shuts off any sustaining sounds. If you have sounds that for any reason sustain too long, you can terminate them by clicking here. However, the **Panic** button does not stop the sequence from continuing to run.

The **Panic** button can be used to your advantage if you are punching in. You can click the **Panic** button until you come to the **MIDI Event** that will be the first sound. This will allow you to keep any extraneous sounds from being recorded in case you have been punched in early.

Right in the center of the **Playback** box is the **Next** line. This will list the title (or number) of the next **MIDI Event** to be played. As soon as that event is played the next upcoming event will be listed.

When you click on the **Start** button, a time counter will begin rolling above the **Next** line. This will display either **Absolute** or **Relative** time depending on what has been set in the **Operations** menu. The **Title Bar** of the **Input** window will always display the current time mode. Remember that you can toggle between **Absolute** and **Relative** time with **Command A**. When you are in the **MIDI Event Dialog** box, you need only type an A to change **Time Formats**.

Edit allows you to change all **MIDI Event** parameters of the particular cue point displayed in the **Next** line of the **Play MIDI Events** window, without having to return to either the **MIDI Event** dialog window or the **Cue Sheet**. When you click on this button, the following will appear (if you are stopped, for example, on our MIDI event #2 of **Zarkov/1m2**):

Edit "Event #2"

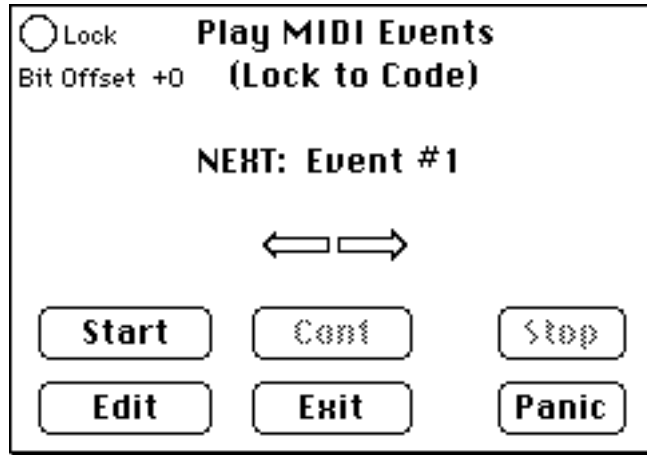
Start Event #

Channel	Note	Level	Duration
<input type="text" value="1"/>	<input type="text" value="C4"/>	<input type="text" value="127"/>	<input type="text" value="1.00"/>
<input type="text" value="1"/>	<input type="text" value="C4"/>	<input type="text" value="127"/>	
<input type="text" value="1"/>	<input type="text" value="C4"/>	<input type="text" value="127"/>	
<input type="text" value="1"/>	<input type="text" value="C4"/>	<input type="text" value="127"/>	
<input type="text" value="1"/>	<input type="text" value="C4"/>	<input type="text" value="127"/>	

Any changes you make in this **Edit** dialog box will be reflected in the **MIDI Event** dialog box and the **Cue Sheet** window once you click on the **OK** button. If you don't want the changes you have made in the **Edit** dialog to show up, then click on the **Cancel** button. In both cases, after you click on **OK** or **Cancel**, you will be returned to the **Play MIDI Events** window.

Locking MIDI Events to SMPTE

In order to lock your **MIDI Event** sequence to a SMPTE input, type the letter **E** on the keyboard. Should you not have set your MIDI port you can do so in this dialog box by typing a left bracket (**[**) for the **Music Port** or the right bracket (**]**) for the **Sync Port**. You do not have to hold down the **Command** key in this dialog box. If you have any question about what you need to hook up, refer to the section entitled, **Locking to Picture** (page 194). It will be clear that you have successfully set the **MIDI Events** to lock to SMPTE, because there will be new information displayed in the dialog box:



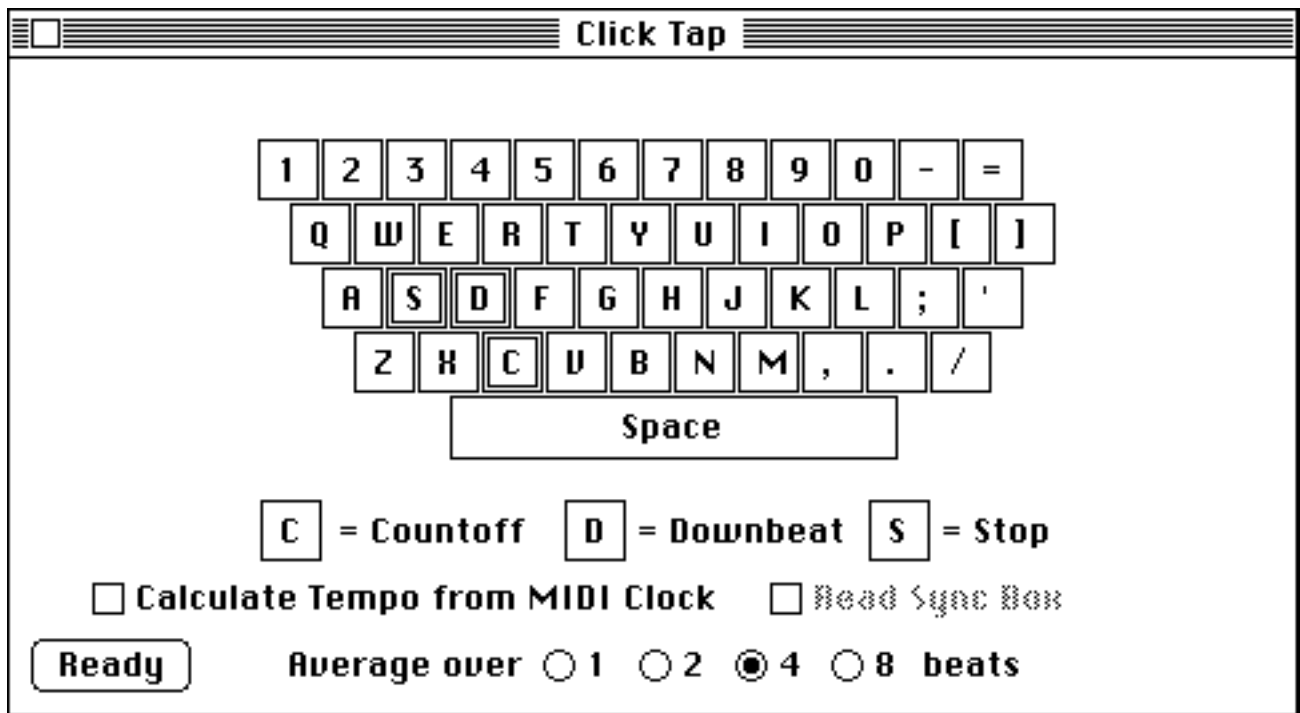
Hitting the plus (or "=") key or the minus key will adjust the **Bit Offset** by increments of 20 bit't in either direction.

Clicking on the **Start** button and rolling your SMPTE master will enable **CUE** to lock up. The circle to the left of the word **Lock** will light up when **SMPTE Lock** takes place. Just as in the **Playback** window, you can roll back and forth within your SMPTE sequence and **CUE** will follow. The sequence will not shut down until you hit the **Stop** button or run the SMPTE to a point that is later than the last **MIDI Event** which you have listed. If it is useful for you to stay locked up, you might want to enter a **MIDI Event** that is a good deal later than the last one you are concerned with. This will give you some leeway when you reach the end of your sequence so that it wont shut off. Remember, of course, to remove this extra event when you wish to return to your original time indications.

Tapping Out a Click - True Digital Programming

For those times when you you have to match the specific cue points to an existing piece of music, or place sound events right with some images that do not sync up to a standard metronome setting, **CUE** provides you with the ability to tap out a custom click track on the Macintosh keyboard.

Although it is possible to enter your cue points after tapping out a click, loading an existing **Cue Sheet** into **CUE** first will probably be more practical. After a template cue has been loaded, click on the **Reel World** menu and select **Click Tap**. You will be presented with the following:



The keyboard in your window is there for inspiration, it is not operative. Your actual Mac keyboard is what you will use to tap out your click. **CUE** permit't you to create a click that has unaccented warning clicks and differentiated bars that start with an accented downbeat. The specialized keys which let you do this are **C**, **D** and **S** described below.

Before we begin, let's set the **Average over** . . . **beats** buttons at the bottom of the window. This allows you to adjust how closely the **Click Tap** will follow

you. If you want every nuance of your custom clicking to be followed then click on the button next to **1**. Remember however, that the human tap machine (us) tends to be rather "inconsistent" in comparison to computer clickers.

Should you want **CUE** to average out some minor inconsistencies in your tapping, you can specify whether you want this averaging to be done over every **2, 4** or **8** beats. The **Average over. . .beats** buttons remain "live" during your **Click Tap** recording, so you can set your average for **8** beats during a section which needs to have a constant tempo, and change it to **1** or **2** in those sections which need more careful variation. The easiest way to make these live changes is to simply type a 1, 2, 4, or 8 from your keyboard. The change will take place at the end of the current active average period.

Even with **Averaging**, tempo changes in your **Cue Sheet** may occur after almost every beat when you are using **Click Tap**, and the size of the cue may become unmanageable. This can be remedied by clicking on the **Operations** menu, selecting **Set Formats**, and releasing the mouse on **Cue Sheet Formats** in the sub-menu. Or you can move directly to this window by typing **Command Opt-F**. You will find the following selection available to you in the **Set Cue Sheet Formats** Window:

ACC/RIT, CLICK TAP DISPLAY

- All Tempos
- Beginning and End Only

Clicking on the **Beginning and End Only** circle, will constrain tempo change indications to the first and last created ones only.

To commence the **Click Tap** process, click on the **Ready** button. In the upper part of the screen you will see that the word **RECORDING** has appeared along with **BAR** and **BEAT**. This does not mean that the recording of the click has started, but merely that the dialog box is in readiness waiting for the next key stroke to actually begin.

Note: Once you have clicked on **Ready**, you will not be able to leave this window until you hit the **S** key to stop the proceedings.

It is not necessary for you to tap a countoff (with the **C** key), but it is necessary for you to use the **D** key to tap down beats and the **S** key to stop your click.

After the **Ready** button has been clicked "on", tap the **C** key for as many countoff beats as you want to preface your cue. Then tap on the **D** key for down beats of each measure you construct, and any other key on the keyboard for the remaining beats of each measure. You are not locked into any preset meter when you use **Click-Tap** feature, so typing a **D** key for downbeats can change your meter at will. All meter and tempo changes will be reflected in the **Cue Sheet**. When you are done tapping, hit the **S** key to send a stop message. The **S** key must be tapped in rhythm.

If you tap out less measures than the length of the cue you have described in the **Cue Sheet**, **CUE** will take the last **Tempo** you tapped and carry that through to the end of the cue. To see what your new **Tempo** looks like in the **Cue Sheet**, click on the close box at the far left of the **Click Tap** title bar (or type **Command-U**).

Read Sync Box

If you have a Garfield Time Commander, **CUE** can import its SysEx tempo information and enter it into the **Cue Sheet** tempo map. Check the button labeled **Read Sync Box**. If the Time Commander is tracking live to an audible click in "record Mode," it will send tempo information to your **Click Tap** in **Ready** mode.

Calculate Tempo from MIDI Clock

Suppose, while watching a scene in your project, you had your trusty Drum Machine going, and found just the perfect set of tempos for the visual material. Can you log those tempos into **CUE** for your **Cue Sheet** or **MIDI Events**? Well. . .

When you place a check in the **Calculate Tempo from MIDI Clock** box, The **Click Tap** feature will determine the tempo for your present cue according to the tempo you have set on an external MIDI device like a drum machine or synthesizer sequencer. When you have checked the box, click on **Ready**, and the **Click Tap** feature goes into **Record - Beat** and wait't for an input.

Type **S** from your computer keyboard to exit this function.

Click-tapping with a MIDI Keyboard

You don't like to tap your fingers to the music on a computer keyboard? In that case, connect your MIDI keyboard up to the **Music Port** (check to see that you are in the properly selected Printer or Modem input from your MIDI interface). Playing a **D** above middle **C** will record a downbeat, just like typing **D** on the Mac. Playing middle **C** will record a beat other than the down beat. Now you can tap to the action, but it will still be necessary to type an **S** on the Mac keyboard (in rhythm) to stop your recording.

Locking Your Tap to SMPTE

Make sure that your MIDI Time Code box is connected to the **Sync** port that you have set using the **MIDI Setup** dialog box from the **Reel World** menu. Then lock **CUE** to SMPTE by either clicking on the **Reel World** menu and selecting **Lock to Time Code**, or typing **Command-E**.

If you have done this correctly, you will see (**Lock to Time Code**) appear in the title bar when you return to the **Click Tap** window. Next, hit the ready button, turn on the video and wait for the place in the picture where the first beat will occur. When SMPTE lock has been achieved the **Lock** light next to the word "recording" will turn on. At the appropriate point begin with the first down beat. Do not worry about your **Countoff**. You can set that later by going to the **Operations** menu and selecting **Set Count Off** (or typing **Command-W**).

When locking to code with the **Click Tap** procedure, **CUE** calculates the difference between the **Running Time** you have set in your **Cue Sheet Setup**, and the first of your **D**(downbeat) taps. It then enters this time difference as **Offset** into the **Cue Sheet**.

In order to check your **Click** against the picture, lock **CUE** to SMPTE and listen to the **Click** out. (see page 194)

Editing Your Hand-Tapped Click

You can edit this new set of hand tapped tempos and meters in the same way you do other tempos and meters in your **Cue Sheet**. Select the **Set Meter** or **Set Tempo** dialog boxes and enter the modifications you need (see pages 147 and 112).

Downbeat Mode - Remetering by Click Tap:

Downbeat Mode enables you to easily and quickly change the meters of your cue to put certain hits on the downbeat of a bar. You can listen to your click in **Playback** mode, and just tap where you want downbeats to occur.

To get to **Downbeat mode**, go to the **playback** window and start playback. Then open **Click Tap** and hit **Ready**. The click is already going, and just tap **D** where you want downbeats and **S** to stop. **CUE** will adjust the meter map accordingly. **CUE** will never make a meter longer than the initial one. This allows you to only tap where you want the meter to change. As an example, if you start out in 4/4 and tap on the 16th beat (15 beats from the start) you will have 3 bars of 4/4 and one bar of 3/4. You can see the changes by going to the **Cue Sheet** or **Clicks** windows.

SMPTE Generation

CUE will act as a commandler for certain SMPTE generating devices such as the Opcode Timecode Machine, Studio 3, Garfield Time Commander and the Southworth JamBox/4.

You can select the type of SMPTE you wish to have generated by setting choosing the proper format in the **Absolute** time column of the **Set Time Format** box (in the **Operations-Set Formats** menu, or just type **Command-F**. It is not necessary for the SMPTE button to be toggled on. You could be working in feet/frames or any other format and not have to switch. Clicking on the specific type of SMPTE will be enough for **CUE** to know what to do.

Once you have picked the SMPTE type and clicked on **OK** or hit the **Enter** key, Select **Generate SMPTE** from the **Reel World** menu. If you have not yet selected **MIDI Setup**, the **MIDI Setup** dialog box will open automatically. Make sure the correct sync port and SMPTE generator are chosen and click on **OK** (or hit the **Enter** key). When you have done so, the **Generate SMPTE** dialog box will open.

Generate SMPTE
(TC Machine/Studio 3)

Pre-Roll

Music Start

1	(hr)	s0:00:00:00
---	------	-------------

If you have a cue open, **CUE** will automatically give you a fifteen second **Pre-Roll** and place the time of the first beat into the text boxes labeled **Music Start**. The small box is for the SMPTE hour and the larger box is for the rest of the SMPTE number. (It is set up the same way as entering **Running Time**). You are of course free to modify any of the entries. Should you shorten the amount of **Pre-Roll**, the new number you have entered will continue to appear until you modify it again or close the program. The Pre-Roll can be set as a default.

The **Generate**, **Stop** and **Exit** buttons are self-explanatory with one exception. Hitting the **Exit** button will not turn off the SMPTE generator. You can leave dialog via **Exit**, and even quit the program, the SMPTE generator will keep going. In case you are striping an entire reel, this feature will not tie up the rest of your computer. You will be able to continue on with other work. When you have exited the dialog box but stayed in the program, you can turn off the SMPTE generator by returning to the dialog box and hitting the **Stop** button. Should you have exited the program, when you return to the **Generate SMPTE** dialog box, you will have to hit the **Generate** button first in order to activate the **Stop** button which you can then hit to turn off the generator.

Generate: Multi

As you progress down the **Reel World** menu, you will see the **Generate: Multi** title. In the Real World, we need to put SMPTE stripes on our analog (or digital) tapes to lock our audio-video playback, and to begin clicks and/or electronic sequencers. This is necessary but boring work best done before the recording session if possible. Here is the feature to help you with that task.

Through this feature you can generate the SMPTE starts and stops for your entire set of cues. If you have not yet compiled your **Master Cue List**, **Performing Rights Cue Sheet**, or **Spotting Notes**, this heading will be shown in grey print, and will not be operational. After you have created one of these compilations however, **CUE** will take this combined information and through the now darkened **Generate: Multi** feature construct a single complete time-lock track for all cues. When you now select **Generate: Multi**, the following dialog box will appear:

GENERATE: Multiple Cues
(TC Machine/Studio 3)

Tape Length

Pre-Roll

Post-Roll

Silence Between Cues

Well actually, the **FIRST** time you click on **Generate: Multi** you will find the **MIDI Setup** dialog box in your screen first:

SMPTE Gen: TC Machine/Studio 3 JamBox/4
 Time Commander

Select the SMPTE Generator you are working with from one of the three possibilities provided here, and click on **OK**. THEN the **Generate: Multi** dialog will appear with text boxes for **Tape Length**, **Pre-Roll**, **Post-Roll**, and **Silence Between Cues**. Once these guidelines have been set, **Generate: Multi** will stripe the whole tape based on the starts and stops of the cues in the **Master Cue List**.

The first box, entitled **Tape Length**, allows you to enter the total recording time available on your external recording tape. The default time (30 minutes) is fairly

standard for a 10 1/2 inch roll of analog recording tape moving at 15 inches per second. You can type in any number you would like here, of course. **CUE** will calculate how many cues it can stripe on one tape, and stop after the last complete cue it can put on one tape. A gentle BEEP will tell you to change reels, and the **Stop** button will change to the **Cont** (continue) button. It will wait for you to change tapes and hit the **Cont** button, before continuing on with the striping procedure.

The **Pre-Roll** box allows you to set a standardized number of seconds before each Cue's actual start time. A default time of 15 seconds should be enough to get your synchronizer to lock picture and sound. If not, enter a larger number. With electronic synchronization only (MTC), you may not need 15 seconds, and can designate a smaller number in this box.

The **Post-Roll** is set to determine how long you want time code to extend past the end of the cue. It will then move on to the final entry box, **Silence Between Cues**, enter that quantity of silence, and move on to the next cue.

Generate: Multi is multitasking. You can leave it's dialog box and it will continue operating. When it is time to change the external tape you are recording to, **CUE** will present you with a dialog box to do so. In fact, if you are in multi-finder, and working with an entirely different program, it will still present you with it't **Change Reel** Dialog box.

If the **Session Number** in the **Master Cue** list window was set to 1 - 9, and was selected when you last created a **ProductionSearch**, **Generate: Multi** will only stripe cues from that session. Any other number entered into the **Session Number** box will cause all cues to be striped.

Generate: Multi will only stripe cues with the requested Production Number as well. If a **Prod.#** search was done in the **Master Cue** List, **Perf. Rights**, or **Spotting Notes** window, **Generate: Multi** will stripe only those cues with the same production number.

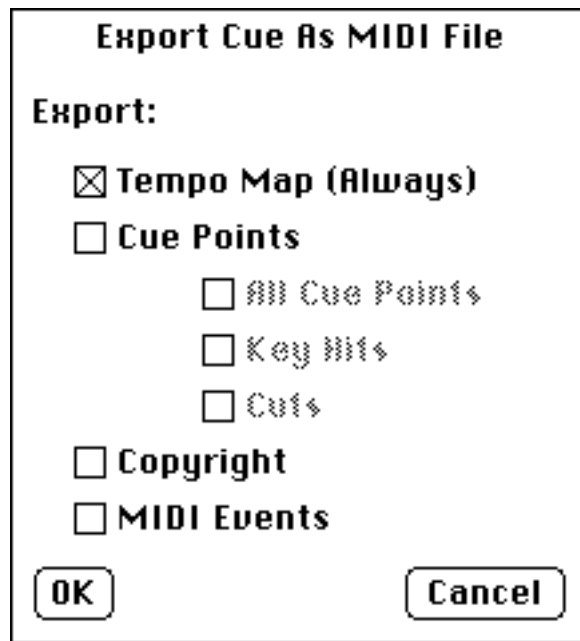
MIDI Files

You can **Save** your **Cue Sheet** information as a **MIDI File**. This is a new file format developed by Dave Oppenheim of Opcode. It allows all manner of different programs to save MIDI information in a common file format.

One of the key reasons to save your **Cue Sheet** as a **MIDI File** is that this file can be read by a sequencer. This means that before you even start working on your sequence you will have a template in place that contains all your **Meter** and **Tempo** changes. In addition, **CUE** will also make it's **MIDI Events List**, and cue point descriptions (if there is one) part of your sequence.

How to Save MIDI Files

You can **Save** your cue as **MIDI File** by selecting **Export** from the **File** menu, and sliding the mouse down the sub menu, to the heading **Export Cue as MIDI file**. The following dialog box will appear:



The dialog box is titled "Export Cue As MIDI File". It contains a section labeled "Export:" with the following options:

- Tempo Map (Always)**
- Cue Points**
 - All Cue Points
 - Key Hits
 - Cuts
- Copyright**
- MIDI Events**

At the bottom of the dialog box are two buttons: "OK" and "Cancel".

The four checkable selections in this box allow you to export information you would like to have show up in your MIDI (sequencer) files. The checked **Tempo/Meter** map will always be a part of the MIDI file, so to save your time, we have permanently checked this box for you. Tempo and Meter information will now be built right in to your sequencer tracks.

When you check the **Cue Points** heading, you will be able to select **All Cue Points**, **Key Hit't**, or **Cuts** for addition to this **Saved** file. The **Cue Points** descriptions are saved as **Marker** events in the MIDI File's **Meter Track**. In this way they can be viewed in the editing window for any sequencer track in Vision and most other Mac professional sequencing software packages.

If you have constructed a **MIDI Events** list, and check the **MIDI Events** box here, your Events will get their own track in your sequencer file.

A check in the **Copyright** box will put the symbol, followed by the year, composer, publisher, and the composer's rights affiliation into a track named "Legal Stuff".

When you are happy with the choices you have made, click on **OK** (or you can hit **Cancel** at any time). You will get a standard **Save File** box with the default file name already entered into the proper dialog area.

Save MIDI File as:

Zarkov/1m2.MF

The letters **.MF** will be added to the end to signify Midi File. At this time, you can **Save**, or hit **Cancel** to return to your cue. When you save your default cue title as a **MIDI File**, it will turn up with an icon that looks like this:



Or, you can give it your own name:



You will have saved a **MIDI File** that is separate from your **Cue Sheet**.

Before you dump this **MIDI File** into another program, make sure what version of **MIDI File** the software accepts. When **MIDI Files** were first implemented they had a different form that is incompatible with the current version. **CUE** writes **Version 1.0 MIDI Files**.

Importing MIDI Files

A click on the **Import MIDI File** from the **Import** sub-menu will bring up the following dialog box:



Two check boxes allow you to choose the type of MIDI file you wish to import: **Music** or **Tempos/Meters/Offset**. This feature opens a Format 0 Standard MIDI File created by a sequencer, for use with the **MIDI File Playback** feature.

How to Copy and Paste MIDI Files

When you click on the **Edit** menu, and select: **Copy MIDI File to Clipboard**, **CUE** will create a **Midi File**. But, instead of saving it to disk, this **MIDI File** will exist only on the **Clipboard**. If you have a sequencer capable of cutting and pasting **MIDI Files**, or simply want to copy your tempo and meter map to another cue in **CUE**, you can **clip** a Midi file onto your **Clipboard**, pick a sequence (or another cue), and **Paste**.

Lets make a short example. We've doctored Zarkov/1m2 up a little bit to keep the studio musicians awake during the latter half of the cue. Several tempo and meter changes have been added to the original.

s0:01:13:14	40.13	DIAL: "THEY HAVE FOUND THE EGG. WE'RE DOOMED!"
s0:01:14:12	41.07	(THE TEMPO CHANGES TO 173.00 ON THIS CLICK)
s0:01:15:03	41.76	(THE TEMPO CHANGES TO 172.00 ON THIS CLICK)
		METER CHANGE: $\frac{3}{8}$
		METER CHANGE: $\frac{5}{8}$
s0:01:17:07	43.92	End Dialogue

The changes worked so well, we decided to try this lovely section in Zarkov/2m1 also: By selecting **Copy MIDI File to Clipboard**, the **Tempo**, **Meter**, and **Running Time** were copied to the clipboard. A **Paste MIDI File** sent these features (minus the individual cue points and descriptions) to Zarkov/2m1 for a second try.

Conversions Window

The **Conversions** window is provided as a means to let you convert a **Tempo** or **Time** into all possible formats without having to make changes to the **Cue Sheet**. It also enables you to select a **Tempo** and see the length in milliseconds of any given note value from a 32nd note triplet to a whole note.

One of the uses of this window is in setting digital delays. The **Conversion** window takes the guesswork or calculation time out of deriving a delay setting in milliseconds for a any musical equivalent you wish to hit at a given **Tempo**.

This window will also be of use to you is if you are cutting up music to fit edits in the film.

Access the **Conversions** window by clicking on the **Windows** menu and selecting **Conversions**, or typing **Command Opt-C**.

Conversions				
TEMPO			TIME	
<input type="text" value="12"/>	-	<input type="text" value="0"/>	<input type="text" value="0.00"/>	
<input type="button" value="OK"/>			<input type="button" value="OK"/>	
<input checked="" type="radio"/> 24 fr.	<input type="radio"/> 25 fr.	<input type="radio"/> 29.97 fr.	<input type="radio"/> 30 fr.	<input type="radio"/> B.P.M.
12-0	12-40	14-79	15-00	120.00
$\text{♪} = 42$ milliseconds	$\text{♪} = 375$ milliseconds	Hr:Min:Sec 0.00		
$\text{♪} = 63$ milliseconds	$\text{♪} = 333$ milliseconds	SMPTE(24) f0:00:00:00		
$\text{♪} = 94$ milliseconds	$\text{♪} = 500$ milliseconds	SMPTE(25) e0:00:00:00		
$\text{♪} = 83$ milliseconds	$\text{♪} = 750$ milliseconds	SMPTE(30) s0:00:00:00		
$\text{♪} = 125$ milliseconds	$\text{♪} = 667$ milliseconds	SMPTE(29) c0:00:00:00		
$\text{♪} = 188$ milliseconds	$\text{♪} = 1000$ milliseconds	SMPTE(df) d0:00:00:00		
$\text{♪} = 167$ milliseconds	$\text{♪} = 1500$ milliseconds	Film(16) x0/0		
$\text{♪} = 250$ milliseconds	$\text{♪} = 2000$ milliseconds	Film(35) 0/0		
		Film(*16) *x0/0		
		Film(*35) *0/0		

To use the **Tempo** side of this window, click on whichever **Tempo** format you wish to enter and then key in the **Tempo** you wish to examine into the text boxes provided at the top of the window. When you do this and click on **OK**, you will see that every other **Tempo** format has the corresponding **Tempo** displayed beneath it in italics.

Since there will be minor variations in note lengths depending on **Tempo** format, any time you click on another format, you may see a slight adjustment in note lengths and **Tempos** in the other formats. You do not have to click on **OK** for these adjustments to be made. This slight shifting will be most evident when you click on **Beats per Minute** after having entered one of the other formats.

For example if you have made a **24 frame** entry of **11-1**, and then click on **Beats per Minute**, you will see that the **24 frame** time has been changed to **11-13** since that is the closest a **Beat per Minute** tempo can come to the **11-1** you originally entered. As a result of this recalculation, the note durations will have shifted a bit as well.

Using the **Time** side of the **Conversion** window is simply a matter of entering the time you wish to see converted into all the other formats. You can type in unit't of time, SMPTE or feet/frames. As soon as you click on **OK**, you will see that number converted into all the different formats.

It is also possible to add and subtract time in this window by typing the plus (or =) key, or the minus key followed by a time quantity. This turns the **Conversion** window into a time calculator.

As you work with different conversion possibilities, it will help to hear the click tempos you are requesting. Holding down the **Shift** key, and clicking on the **TEMPO OK** button will start and stop an audible click. Once you have started an audible click, you can change conversion tempos, but the audible click will continue unchanged. Stop the click with **Shift-OK**). and then start the click again,It will take the newly entered tempo.

The **Enter** key on your Macintosh keyboard will function like a **Click** on whichever **OK** button your blinking cursor is closest to.

10 Mac II Supplement

Cue provides several substantial features for the Macintosh 2 family of computers. Peripheral slots for color display as well as for video genlock give Mac 2 owners substantial choices for color monitoring, superimposing colored streamers, punches, and **CUE** graphics on to NTSC video displays.

The color version of **CUE** available from Opcode, has the following additions to **CUE** 3.0.

Color Monitors and Genlock Boards

If you have a **Mac II**, the **Set Streamer Colors** dialog box will work the same way except that you will see the actual colors instead of having to select from a list of the color names. In addition, you have the option of being able to pick streamer colors from the full **Mac II** palette for **CUE**'s internal streamers or when employing a genlock board to superimpose the actual **Mac II** image onto your video monitor.

Superimposition of color streamers over your video involves buying a genlock board for your **Mac II**. This will allow you to actually place the **Mac** screen streamer animation over the video image. Genlock boards can be had for less money than the **Tesla Streamer Box**, but the truth of the matter is that the **Tesla**'s animation is far superior to that which the **Mac 2** version of **CUE** is capable of producing.

Color for Search Tempos

Search Tempos in the **Operations** menu, lists it's results in three columns. The first column shows the number of cue points caught in green. The second column shows the number of near misses in amber and the third shows the number of out and out misses in red. When you "zoom in" on a tempo, the cue points are also listed in the green, amber or red.

Key Hit Displays

The **Key Hit** checkmarks found in your **Cue Sheet** are displayed in the color of their streamer type. Default streamers will be in black, and if a streamer color is too light to show up on a white background, it will be shown in an outline font.

Title Page Color

The **Title Page** will work with color artwork. Unfortunately, you will need a pretty expensive printer, and a high-quality graphics application to make full use of this feature. **CUE** may be slightly ahead of it's time.

The Reel World Menu Additions

The **Playback** Window has many color options for those Mac owners with a color monitor. Your streamer colors are determined by the streamer types set in the pop-up menu which appears when you click on the **Default Streamers button** in the **Input** Window. The colors assigned to the different streamer types are set in the **Set Colors** dialog box (**Reel World** Menu).

If the Computer Friends genlock is activated, the background color of your display becomes the chromakey (invisible) color, and everything else on the screen gets superimposed over an incoming NTSC video signal.

Color Playback Display

This dialog lets you choose what gets displayed in the **Playback** Window and what doesn't. If the only thing being displayed is the Time Counter then it will be shown twice as large. The settings for **Playback Display** are saved as defaults.

MIDI File Playback

If the genlock is active, typing "R" while in MIDI File Playback hides all of the Mac Video, so only the live video is visible. Typing "R" again puts things back the way they were.

Set Colors

This dialog lets you pick the colors for each streamer type, and for text and text backgrounds in the Playback Window. If you are using the Mac II to genlock the streamers, click on the Mac II button. If you are using the Tesla box, click on Streamer Box. Clicking on one of the streamer type buttons opens up a 256 color palette (8 colors if you are using the Tesla). Click on one of the colors and hit OK. If none of the colors is to your liking, click on one then hit the change button. This opens up Apple's Color Picker dialog so you can set the streamer to any one of 16, 777, 213 colors give or take a decimal place.

The Text button lets you pick the color of the text and sweep clock. The Text Background sets the color of rectangles that are painted behind each object in the **Playback Window** so that they will show up better when genlocked over video. If you don't want a background, set the background to the same color as the chromakey color, which is marked with an **X** in the palette.

If the **Chromakey Cue Sheet** button is checked, the **Cue Sheet** will be painted the same color as the Playback window, and it's text will be the same color as the text in the **Playback Window**. This lets you genlock the **Cue Sheet** over the video. To make this work you should have a genlock board with an RGB output. Computer Friends makes one. You will probably also want to use a large font. With the right equipment, you would be able to take timings of the same screen that you are typing them into. **With the Scroll Cue Sheet During Play** option set (**MISC** Menu), you can have cue points scrolling in front of the video as they go by.

The settings for **Set Colors** are saved as defaults.

Set Palette

Set Palette opens a palette dialog like the one in **Set Colors** that lets you change the palette without reassigning the streamer colors. These settings are saved as defaults.

Color Bars

This draws a set of color bars so you can adjust your NTSC monitor if you are using the genlock.

Hints For The Misc Menu:

Genlock On/Off

If you have the Computer Friends T.V. Producer connected to your system, this toggles the genlock on and off. It can also be selected with **Command Opt-V**

Enlarge Playback Window

This toggles the Playback Window between it's normal size and a size big enough to fill an NTSC monitor. It can also be selected with **Command Opt-E**.

11 Helpful Hints

Some of the following hints are excerpted from earlier parts of the manual. Others appear here for the first time.

Learning a few Cue Sheet Conventions

If you are new the world of Music Editorhood it will be useful for you to learn a few of the conventions used in putting **Cue Sheets** together:

Dialog is capitalized.

Capitalize the word in your description that occurs right at the timing point you have noted:

(The window SHATTERS. Joe ran across the room and SLIPPED.)

Film and Video Abbreviations:

BG	Background	INT	Interior
CU	Close Up	LS	Long Shot
DIAL:	Dialog	MS	Medium Shot
EL	End of Line (of dialog)	NARR:	Narrator
EXT	Exterior	O.C.	Off Camera
FG	Foreground	O.S.	Off Stage
FS	Full Shot	POV	Point of
View			

Slipping a Cue into Place with Offset

Being able to enter an **Offset** of measures and/or beats can be helpful if you are trying to change **Tempo** in the middle of a cue. Say you have a starting **Tempo** of 11-5 that catches all your beats up through bar 23, beat 4, and you want an imperceptible **Tempo** change that will hit everything after that. You might search the **Tempos** 11-4 to 11-6 with an **Offset** of m23b4 (measure 23 beat 4). Only the hit't that come on or after bar 23 beat 4 would thus be included in the search. The bar and beat format takes into account any earlier tempo and meter changes you have already placed into the **Cue Sheet**, so if you find a new

Tempo for this next section of the cue, you can enter it knowing it will work with what you have previously entered.

If there is some obscure bit of arithmetic you need that **CUE** does not do, you can use a desk accessory calculator and then **Copy** and **Paste** the result into the **Input** window or wherever you need it.

If you want to print a lot of cues, it is best to go to the **Finder**, select the icons of all the cues you want to print, choose **Print** from the **File** menu, answer all the appropriate dialogs that will appear and go eat lunch. The Imagewriter is not known for setting speed records.

Key Equivalents and Desktop Shortcuts

Instead of using the mouse to select items from the menus, you can use key equivalents. (This means holding down the **Command** key and typing a single keystroke.) Almost all the key equivalents can be found in the menus to the right of the menu items they represent. For easy reference you can consult the menu map that appears at the front of the manual.

Command "," toggles the **Click Window** and **Score Page** between time and beats within a given measure.

Another key equivalent provides an alternate method of changing **Versions**. Holding down the **Command** key and typing either "+" (or "=") moves you forward through the **Versions**, while holding down **Command** and typing "-" will move you in the other direction. If you are not sure what **Version** you have moved to, click on the **Version** menu to check your progress.

Double-clicking on a **Score** icon in the **Finder** will load **CUE** as well as open that particular score setup. The **Score** icon looks like this:



If you have cues in a film that do not get used in their entirety because of one editing decision or another, you can make their actual length be reflected accurately in the **Performing Rights Cue Sheet** by placing a **Reverse Slash** (page 77) in your **Cue Sheet** at the point where the music was cut. This will

make that cue point the end time of the cue and thus your **Performing Rights Cue Sheet** will list the correct amount of music.

When you want to start timing from a cue point other than zero, click twice on that cue point to place it into the **Input Window**. When you start the **Stop Watch** it will begin timing from this point. After you stop the watch, the new time will be displayed and you can tab into the **Description** field thus selecting the old description which will be replaced by the next thing you type.

If you print your **Score Paper** out sideways, don't tear the individual sheets apart when you remove them from the printer. By taping the left edge of the first page to the last page, you will have an easy to use book.

A number of shortcut keystroke combinations that provide alternatives to using the mouse can be found under the **MISC** menu.

12 MIDI File Playback

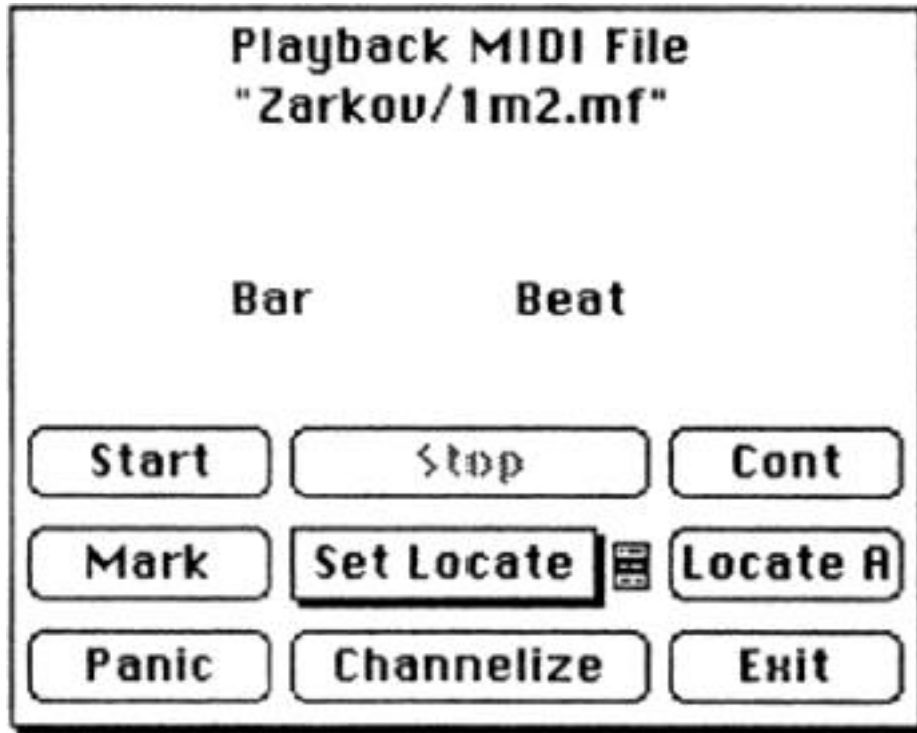
MIDI File Playback allows you to take a **MIDI File** recorded in a sequencer such as Opcode's **Vision**, and play it back using the **Tempos** and **Meters** calculated by **CUE**.

Not only will **CUE** play back the music, but it will also play an audible click, either through the Mac speaker or over **MIDI** (see **Playing the Click Track**), and trigger an external streamer box such as the **Tesla** if you have set things up correctly (see **Playing Streamers and Punches**).

It will display both a bar/beat counter and a time counter whose format is based on the **Set Time Formats** and the **Command A (Enter Absolute Time)** settings.

To use this feature you must have in your possession an authentic **Format 0** (single-track, multiple channel) **MIDI File**. All the major Macintosh sequencers are writing them these days. Choose **Import MIDI File** from the **Import** submenu under the **File** menu, and when the first dialog appears, make sure that the **Music** checkbox contains an X (See **Import MIDI File**).

Open the cue containing the **Tempos** and **Meters** you want to use, then choose **MIDI File Playback** from the **Reel World** menu. You will be presented with this dialog:

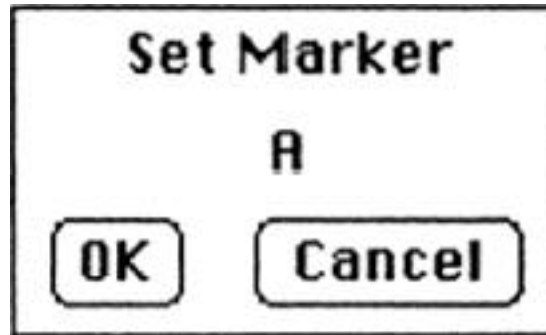


You've seen all these controls before. **Start** (or the **Space Bar**) begins playback from the countoff, **Stop** (or the **Return** key) stops it, and **Cont** (or the **Tab** key) picks up where you **Stopped**. **Exit** (or the **Esc** key on extended keyboards) **Stops** playback then leaves the dialog box.

You can also pick the **Continue** point by clicking on the bar number. Clicking on the upper half will increment it, and clicking on the lower half will decrement it. Holding down the mouse button will make the increment/decrement continuous (and quite brisk).

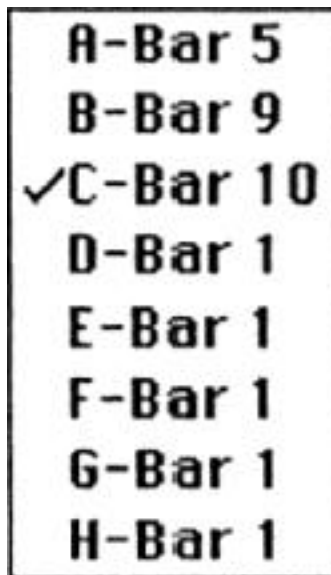
Playback Markers

As with the **Playback** window, up to eight markers lettered A through H can be set up. First set the bar number by clicking on it or playing and stopping at the right place. Next click on the **Mark** button. You will see this dialog:



Clicking on the upper half of the **A** will increment through the marker letters and clicking on the bottom half will decrement. Click on **OK** when you reach the marker you want to set.

To use a marker, choose one from the **Set Locate** pop-up. The marker's letter will appear in the **Locate** button just to the right.



Sustaining Note Cutoff

Use the **Panic** button when your whole world is falling apart and you can't cope.

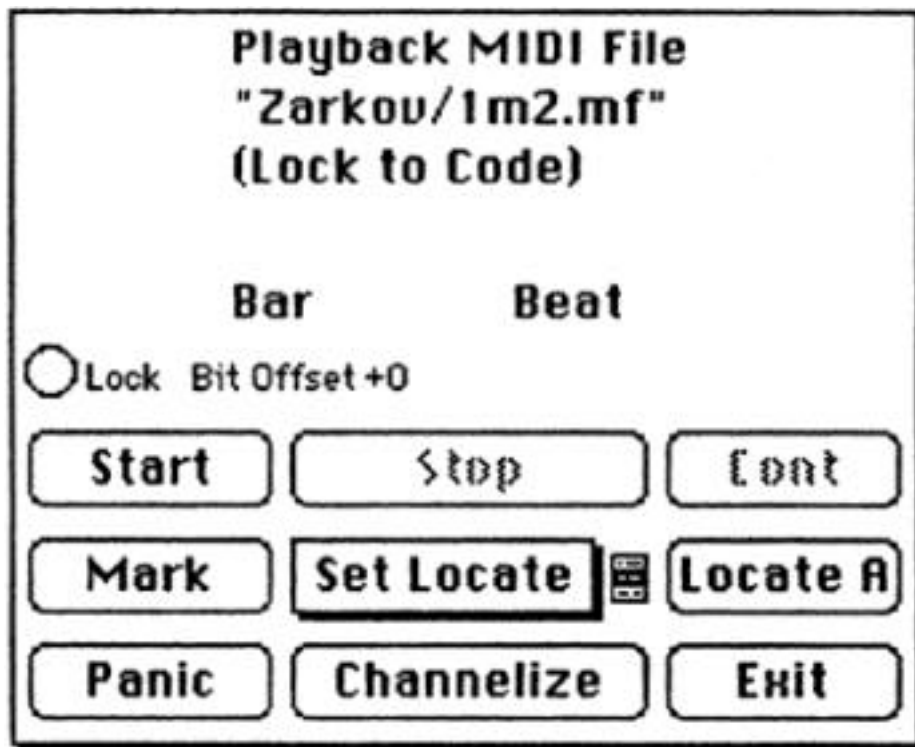
It won't help, but it will cut off any sustaining notes.

MIDI File Playback Locked to Time Code

This all locks up to **MIDI Time Code** in the same way that the **Playback** and **MIDI Events** windows do. First make sure that your equipment is connected correctly and that the **MIDI Ports** are assigned. The **Sync Port** should be connected to the **MIDI Time Code** device and the **Streamer** box. The **Music** port should be connected to your synthesizers and **MIDI Click** source, if any (see **Locking to Picture - MIDI Time Code**). **CUE** should be in **Lock to Time Code** mode (**Command E**, **Misc** menu, or **Options** in the **Reel World** menu).

If you enter **MIDI File Playback** before making these settings, you can make them quickly from within the dialog. "[" will toggle the **Music Port** between **Modem** and **Printer**, "]" will do the same for the **Sync Port**, and "E" will turn **Lock to Code** on and off.

When you are set to **Lock to Code**, the **MIDI File Playback** dialog will look like this:



Now, when you hit **Start**, and run your tape, **CUE** will find its place, and play in sync with the tape. It will stop when it receives a **Time Code** number past the end of the cue.

Channelizing

There has been much debate over whether this ancient mystical technique is a hoax or not, although several **CUE** users have reported making contact with the King himself. Although you may not have this kind of luck with the **Channelize** button, it will allow you to alter the **Playback** file in several ways. When you click on it, here is what you see:

Reroute	To	Oct	Mute	Solo
● Channel 1	1	+1		
● Channel 2	3	0		
● Channel 3	3	0		●
● Channel 4	4	0		●
● Channel 5	5	0	●	
● Channel 6	6	0		
● Channel 7	7	0		
> Channel 8	8	0	●	
● Channel 9	9	0		
● Channel 10	10	0		
● Channel 11	11	0		
● Channel 12	12	0		
● Channel 13	13	0		
● Channel 14	14	0		
● Channel 15	15	0		
● Channel 16	16	0		

OK Cancel

From this dialog you can reroute any channel to any other channel (note Channel 2), transpose any channel up or down one octave (note Channel 1), mute any

channel, and non-exclusively solo any channel(s). You can also rename channels.

To change channel or octave numbers, just click in the appropriate column next to the desired channel. Clicking on the upper half of the number increments it, and clicking on the lower half decrements it.

To mute or solo any channel, just click in the appropriate column to the right of the desired channel. A little dot appears when the channel is muted or soloed. Clicking on it a second time puts things back to normal. You can solo as many channels as you want (up to 16, of course).

Naming Channels

You might want give more meaningful names to your **MIDI** channels, such as the synthesizers or sounds that they are playing on.

Select a channel by clicking anywhere on its line. The small dot on its left will change into a ">" when it is selected. When you start typing, the old channel name will be replaced by your typing. The new name will be in *Italics* until you accept it by hitting the **Return** key. The standard Macintosh editing techniques do not apply here. While the name is still in *Italics*, you can use the **Backspace** (**Delete**) key to remove characters one at a time, or you can hit **Return** and start all over.

Reroute	To	Oct	Mute	Solo
● 3-550	1	0		
> <i>Elvis</i>	2	0		
● Channel 3	3	1		
● Channel 4	4	0		
● Channel 5	5	0		
● Channel 6	6	0		

When you are done, hit **OK** (or **Enter**) to accept your changes and **Cancel** to ignore them.

Channel names are saved with your default settings. All other **Channelize** settings last only until you quit **CUE**.

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