

WED, OCT 1, 1986

OASIS XE  
VISUAL EDITING SYSTEM FOR  
THE ENSONIQ MIRAGE

THIS HANDBOOK PREPARED BY  
PAUL SMITH

FOR OASIS VERSION DATE: JUL 10, 1986

## HYBRID ARTS LICENSE AGREEMENT

**IMPORTANT READ BEFORE OPENING THIS PACKAGE. THE SOFTWARE, HARDWARE, AND OWNERS MANUAL (SYSTEM) CONTAINED HEREIN IS LICENSED IN ACCORDANCE WITH THE FOLLOWING TERMS AND CONDITIONS.**

Hybrid Arts grants to you a personal license to use the enclosed Hybrid Arts System solely for your own internal needs.

### LICENSE

You May:

- a. use the system on a single machine;
- b. copy the program into any machine-readable or printable form for backup or modification purposes in support of your use of the program on the single machine (Certain programs, however, may include mechanisms to limit or inhibit copying. They are marked "copy protected").
- c. transfer the program and license to another party if the party agrees to accept the terms and conditions of this Agreement. If you transfer the program, you must at the same time either transfer all copies whether in printed or machine-readable form to the same party or destroy any copies not transferred; this includes all modifications and portions of the program contained or merged into other programs.

You must reproduce and include the copyright notice on any copy, modification or portion merged into another program.

**YOU MAY NOT USE, COPY, MODIFY, OR TRANSFER THE SYSTEM, OR ANY COPY, MODIFICATION OR MERGED PORTION, IN WHOLE OR IN PART, EXCEPT AS EXPRESSLY PROVIDED FOR IN THIS LICENSE.**

**IF YOU TRANSFER POSSESSION OF ANY COPY, MODIFICATION OR MERGED PORTION OF THE SYSTEM TO ANOTHER PARTY, YOUR LICENSE IS AUTOMATICALLY TERMINATED.**

### TERM

The license is effective until terminated. You may terminate it at any other time by destroying the system together with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any terms or conditions of this Agreement. You agree upon such termination to destroy the system together with all copies, modifications and merged portions in any form.

### LIMITED WARRANTY

THE SYSTEM IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO QUALITY AND PERFORMANCE OF THE SYSTEM IS WITH YOU. SHOULD THE SYSTEM PROVE DEFECTIVE, YOU (AND NOT HYBRID ARTS OR AN AUTHORIZED DEALER) ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

**SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**

Hybrid Arts does not warrant that the functions contained in the system will meet your requirements or that the operation of the system will be uninterrupted or error free. Hybrid Arts may from time to time, revise the performance of its system and in so doing, incur no obligation to furnish such revisions to you.

However, Hybrid Arts warrants the diskette(s) or cassettes on which the program is furnished and the hardware, to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

### LIMITATIONS OF REMEDIES

Hybrid Arts entire liability and your exclusive remedy shall be:

1. the replacement of any diskette, cassette or hardware not meeting Hybrid Arts "Limited Warranty" and which is returned to Hybrid Arts or an authorized dealer with a copy of your receipt,

or

2. if Hybrid Arts or the dealer is unable to deliver a replacement diskette, cassette or hardware which is free of defects in materials or workmanship, you may terminate this Agreement by returning the program and your money will be refunded.

**IN NO EVENT WILL HYBRID ARTS BE LIABLE TO YOU FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH SYSTEM EVEN IF HYBRID ARTS OR AN AUTHORIZED DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.**

**SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

### GENERAL

You may not sublicense, assign or transfer the license or the program except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign or transfer any of the rights, duties or obligations hereunder is void.

**YOU ACKNOWLEDGE THAT YOU HAVE READ THIS AGREEMENT, UNDERSTAND IT AND AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. YOU FURTHER AGREE THAT IT IS THE COMPLETE AND EXCLUSIVE STATEMENT OF THE AGREEMENT BETWEEN US WHICH SUPERCEDES ANY PROPOSAL OR PRIOR AGREEMENT, ORAL OR WRITTEN, AND ANY OTHER COMMUNICATIONS BETWEEN US RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT.**

## 1. HOW TO USE THIS MANUAL

## 2. GETTING STARTED

- 2.1 EQUIPMENT LIST
- 2.2 HARD TO FIND ACCESSORIES (VIDEO AND MIDI CABLES)
- 2.3 SETTING UP
- 2.4 STARTING UP THE SYSTEM

## 3. OVERVIEW OF OASIS

- 3.1 WHAT OASIS DOES
- 3.2 HOW TO MOVE AROUND THE OASIS ENVIRONMENT
- 3.3 THE OASIS PAGES
  - 3.3.1 The MAIN MENU Page
  - 3.3.2 The Display Waveform Page
    - 3.3.2.1 The Display Waveform Page Memory Map
    - 3.3.2.2 The Display Waveform "NO WAVESAMPLE LOADED" Page
    - 3.3.2.3 Waveform Display Page Format
    - 3.3.2.4 Basic Operation of the Waveform Display Page
    - 3.3.2.5 Other Features of the Waveform Display Page
  - 3.3.3 The Wavesample Parameter Page
  - 3.3.4 The Keyboard Map Page
  - 3.3.5 The Envelopes Page
  - 3.3.6 The Memory Allocation Page
  - 3.3.7 The MASOS Page
  - 3.3.8 The Configuration Parameter Page
  - 3.3.9 The Program Parameter Page
  - 3.3.10 The Sampling Parameter Page

## 4. GETTING THINGS DONE: SOME TYPICAL OPERATIONS AND HOW TO DO THEM

- 4.1 VIEWING WAVESAMPLES
- 4.2 CHANGING A WAVESAMPLE'S LOOP SETTING
- 4.3 PERFORMING MASOS FUNCTIONS ON A WAVESAMPLE
- 4.4 ADJUSTING MIRAGE MIDI SETTINGS
- 4.5 ADJUSTING RELATIVE FILTER AND VOLUMES ACROSS THE KEYBOARD
- 4.6 GETTING READY TO SAMPLE
- 4.7 ADJUSTING A PROGRAM'S ENVELOPE
- 4.8 LAYING OUT MIRAGE MEMORY FOR MULTISAMPLING
- 4.9 LISTENING TO A WAVESAMPLE (WITHOUT A KEYBOARD)
- 4.10 ADJUSTING WAVESAMPLE-TO-KEYBOARD MAPPING
- 4.11 SAVING CHANGES THAT YOU HAVE MADE TO A MIRAGE DISK
- 4.12 CHANGING FROM ONE SAMPLE DISK TO ANOTHER

5. DETAILED REFERENCE INFORMATION

- 5.1 THE DISPLAY WAVEFORM PAGE
- 5.2 THE WAVESAMPLE PARAMETER PAGE
- 5.3 THE KEYBOARD MAP PAGE
- 5.4 THE ENVELOPES PAGE
- 5.5 THE MEMORY ALLOCATION PAGE
- 5.6 THE MASOS UTILITIES PAGE
- 5.7 THE CONFIGURATION PARAMETER PAGE
- 5.8 THE PROGRAM PARAMETER PAGE
- 5.9 THE SAMPLING PARAMETER PAGE

6. QUICK REFERENCE GUIDE

## 1. HOW TO USE THIS MANUAL

The remainder of this manual consists of four sections. Section 2 contains basic information on setting up OASIS. You should read this section first as it contains important information that you must know to startup OASIS.

Section 3 provides an overview of OASIS. It explains what each page of OASIS does and how it works. This section should be read by new users of OASIS in order to acquaint themselves with the program.

Section 4 of this manual provides information on how to perform a number of common operations using OASIS. These operations involve a series of OASIS commands. While each of these commands is described in sections 3 and 5, this section clarifies exactly how these various commands can be combined to perform very sophisticated Mirage operations. In most cases these operations can be accomplished with just a few keystrokes.

Section 5 of this manual provides a very detailed description of each of the commands available on all of the OASIS pages. This section is provided for use by experienced users. It contains a very concise description of OASIS's capabilities.

Section 6 contains a quick reference guide for the Mirage.

## 2. GETTING STARTED

### 2.1 EQUIPMENT LIST

The following items are needed to run OASIS:

1. The OASIS Master Disk.
2. The MidiMate Interface.
3. Two MIDI cables.
4. An Atari 130XE computer.
5. An Atari-compatible disk-drive such as the Atari 1050 or Atari 810, which is used to boot the OASIS Master Disk.
6. 'A color or black-and-white monitor or a TV set.
7. An Ensoniq Mirage digital sampling keyboard OR an Ensoniq Multisampler (rack-mount Mirage).
8. An Ensoniq MASOS diskette. NOTE: OASIS will NOT work with MASOS Version 1.1 or earlier.
9. An audio playback system.

### 2.2 HARD TO FIND ACCESSORIES

Here are some clues on locating some of the not normally provided, or talked about components of this system.

1. If you are using a computer monitor (instead of a television) you will need a VIDEO CABLE to connect your computer to your video monitor. This is a standard European Audio cable, also known as a European DIN Audio cable. It is a five pin DIN connector (same as one end of a MIDI cable) on one end, with four RCA phono connectors at the other end. If you are using a television, then you can use the cable provided with your 130XE.

The end of the cable with the 5 pin DIN connector is connected to the Atari computer. At the 4 phono connector end, one phono connector is the color video signal (usually WHITE), one phono connector is the monochrome (black and white) video signal (usually red), one phono connector is the computers audio signal (usually BLACK), and the last phono connector is not connected (usually yellow). This VIDEO CABLE can be bought at most any store that sells stereo audio equipment.

2. You will need two MIDI CABLES, to connect your Mirage to the Hybrid Arts MidiMate interface. This is also commonly known as a standard European 5 pin DIN Audio cable (another version) of the video cable described above, but this version has 5 pin DIN connectors at both ends. This cable can also commonly found at stereo audio stores, or more recently (since MIDI), at music stores.

Hybrid Arts provides 2 MIDI cables with the MidiMate Interface.

## 2.2 SETTING UP

1. Make sure your 130XE is installed properly. This involves connecting the power transformer and the disk drive to the computer. If you are unfamiliar with the 130XE, consult the user manual before making these connections.
2. With all power off, connect the MidiMate interface to your system by installing the MidiMate's I/O connector into the back of your disk drive. There are two connectors on the back of the disk drive but one of them should already be connected to the 130XE. Plug the MidiMate cable into the unused connector.
3. Next, connect the MidiMate to your Mirage. This is accomplished using the two MIDI cables which are included with your MidiMate interface. Use one of the cables to connect the MidiMate's "MIDI OUT" plug to the the Mirage's "MIDI IN" plug. Use the other cable to connect the MidiMate's "MIDI IN" plug to the Mirage's "MIDI OUT" plug.
4. Make sure your Mirage is connected to your audio system.

## 2.3 STARTING UP THE SYSTEM

1. Boot the Mirage with a Mirage MASOS disk. If you are unfamiliar with the Mirage or with MASOS, consult the appropriate Ensoniq documentation. Make sure that the MASOS disk you are using is labeled Version 1.2 or later.
2. After the Mirage boots, insert a sample disk in the drive and load the Mirage with one of the samples from the disk.
3. With NO DISK in the Atari drive, turn on the Atari disk drive. The drive's power light (if any) will come on and stay on. On some drives, the access light may also come on briefly when the drive is turned on.
4. Make sure the 130XE computer is off. The 130XE is turned off when the LED in the lower left hand corner of the 130XE keyboard is off.
5. Insert the OASIS Master Diskette into the disk drive. Turn on the 130XE. The "access" light on the drive will come on and the drive will start to turn which means that OASIS is loading. This will take about a minute. When the program is loaded, OASIS will startup and the OASIS "MAIN MENU" will appear on the screen. You are now ready to use the OASIS software.

### 3. OVERVIEW OF OASIS

#### 3.1 WHAT OASIS DOES

OASIS provides a very low-cost but powerful tool for controlling the large amount of sample data and parameters contained in the Mirage. It allows the user to view sample data and manipulate it and to control the hundreds of Mirage parameters which affect the way the Mirage converts this sample data to sound.

OASIS uses the MIDI interface to send user commands and data to the Mirage. It also reads information from the Mirage over the MIDI interface. OASIS reads the sample data from the Mirage and displays it using the 130XE's high-resolution graphics. It also allows the user to modify this data by typing commands to the computer keyboard instead of through the Mirage keypad. This makes the Mirage much easier to use.

#### 3.2 HOW TO MOVE AROUND THE OASIS ENVIRONMENT

OASIS divides the many functions of the Mirage into 9 categories. The program contains a "page" for each one of these categories. An OASIS "page" is simply a portion of the program which displays information about some aspect of the Mirage and allows the user to change that information by typing commands at the computer keyboard. An example of a page is the OASIS "Envelope page" which shows the user the Mirage envelopes and allows them to be changed.

The 9 OASIS pages are tied together with a 10th page called the MAIN MENU Page (See FIGURE 1). The MAIN MENU Page is the first page that is shown when OASIS starts up. The MAIN MENU Page lists the other 9 OASIS pages. Beside each page's name is shown a letter which indicates which key on the OASIS computer keyboard will cause OASIS to switch to that page. For example, the "Envelope Page" can be reached from the MAIN MENU Page by pressing the letter "E" on the computer keyboard.

After the user has switched to the desired page he may return to the MAIN MENU Page by typing the ESC key located in the upper left hand corner of the computer keyboard. Once back at the MAIN MENU Page, the user may switch to any of the other pages.

You will notice that as described above, the user must return to the MAIN MENU Page every time he wishes to go to a different OASIS menu page. Because there are so many pages in OASIS the user will wind up flipping to the MAIN MENU Page quite frequently. In order to make things a bit easier, OASIS provides a convenient shortcut for moving from one OASIS page to another without the need to pass through the MAIN MENU Page. The shortcut works as follows:

If the user is not on the MAIN MENU Page and wishes to skip to another OASIS page without going through the MAIN MENU, he may do so by typing the letter for the new page while holding down the CONTROL key. This will cause the program to skip the MAIN MENU and go directly to the desired page.

**OASIS/XE 7/10/86**

**Copyright (c) 1986 by  
Hybrid Arts, Inc.**

**MAIN MENU**

- D> Display Waveform**
- W> Wavesample Parameters**
- K> Keyboard Map**
- E> Envelopes**
- A> Memory Allocation**
- M> MASOS Utilities**
- C> Configuration Parameters**
- P> Program Parameters**
- S> Sampling Parameters**

**Select a page by pressing the  
indicated key. Use ESC key  
to return to this page.**

**FIGURE 1 - MAIN MENU PAGE**

**EXAMPLE OF SHORTCUT:** Imagine that the user is on the Envelope Page of OASIS and wishes to change to the Display Waveform Page. Normally the user would exit the Envelope Page and return to the MAIN MENU Page by typing the ESC key. Once on the MAIN MENU Page he would press the "D" key which displays the Display Waveform page. USING THE SHORTCUT, the user would simply press the "D" key while holding down the CONTROL key. This flips the user DIRECTLY to the Display Waveform display, skipping the MAIN MENU.

The shortcut works from any OASIS page. The only time it does not work is when the user is being prompted by OASIS.

### 3.3 THE OASIS PAGES

This section describes how each of the OASIS pages works. It is intended to provide the new user with a friendly description of how OASIS works without getting bogged down in extreme detail. A more rigorous discussion of OASIS's capabilities is contained in section 5 of this manual which provides reference information for the experienced user who needs a detailed "refresher" now and then.

In order to use this section of the manual effectively, the user should read it with OASIS running on the 130XF. At various points in the discussions which follow the user will be asked to try a few OASIS commands. It is suggested that the user stop at these points and try a few of the commands which have just been described. You will find that you will better understand and remember the information contained in this section if you have actually tried out the new commands.

#### 3.3.1 The MAIN MENU Page

The MAIN MENU page ties all of OASIS together. When OASIS is first booted, the MAIN MENU page is the first thing that is seen on the computer screen.

The different functions that OASIS makes available have been divided into 9 categories. The main menu contains a "menu selection" for each of the 9 categories. The MAIN MENU page, or screen, is shown in the FIGURE 1.

In order to do any useful work under OASIS, the user must leave the MAIN MENU page by selecting one of the 9 menu choices. This is done by pressing the key on the 130XE keyboard for the letter which is shown next to that menu selection on the MAIN MENU page. For example, to select the DISPLAY WAVEFORM Page, you would press the "D" key on the keyboard.

Once an OASIS page is selected, the computer screen switches to that page and shows you all the information for that page. You may exit from that page and return to the MAIN MENU by pressing the ESC key which is in the upper left hand corner of the computer keyboard. You should try selecting several different pages from the MAIN MENU page and then return to the MAIN MENU by pressing ESC until you get a feel for it.

As you try moving around the various screens you will notice that there is sometimes a pause before a particular page is actually drawn on the screen. During this pause, OASIS is interrogating your Mirage for the information needed to display that page of OASIS. If your Mirage is not working, you may get a message "MIRAGE NOT RESPONDING" when you select an OASIS page. If this happens check the connections between your 130XE and the Mirage. If everything is okay you may have a hardware problem in your Mirage, your MidiMate Interface or your 130XE. Contact Ensoniq, Hybrid Arts, or your local Atari dealer.

You may not understand all of the information that you see when you select a particular page of OASIS but don't worry about that now. There is a section covering each OASIS page following this section.

As you select the pages, it is important to type carefully because on some of the pages, certain keys on the keyboard are "alive", that is, pressing them will initiate a command which may change information in OASIS or in your Mirage. While you cannot harm the 130XE or the Mirage by typing the commands, you may find things a bit confusing if you start up a command before you have read about it in the manual.

If you find that OASIS is asking you a question or doing something else that you do not understand, it probably means that you accidentally pressed one of those "live" keys. Don't worry! You can exit from any one of those commands using the RETURN key or the ESC key. Pressing RETURN and ESC a couple of times will abort whatever operation you inadvertently started and will return you to the MAIN MENU.

Once you are comfortable with the OASIS MAIN MENU you may wish to investigate a hidden feature of the menu which allows you to switch between different pages without passing through the MAIN MENU page. This "shortcut" is described in detail in section 3.2.

### 3.3.2 The Display Waveform Page

You can reach the Display Waveform Page from the MAIN MENU by pressing the "D" key. You can also reach the Display Waveform Page directly from any other page by pressing the "D" key while holding down the CONTROL key. This particular page is one of the most useful in OASIS and one of the most revealing because it is the page which allows you to actually view waveforms as they are stored in the Mirage. As you may know, the Mirage stores thousands of pieces of information about each of the samples that it contains. The OASIS Display Waveform Page draws the waveform on the high resolution graphics screen of the 130XE computer.

As you gain experience with OASIS you will soon begin to "recognize" a sound by the way it looks! For example, a flute-like sound will have a waveform which looks very smooth and has a regular pattern to it. A piano sound also has a regular pattern to it but is not smooth at all. A percussive sound such as a snare drum or cymbal is neither smooth nor regular but consists of a series of apparently random spikes.

### 3.3.2.1 The Display Waveform Page Memory Map

OASIS allocates 65,536 bytes (64K in computer jargon) for the storage of Mirage sample data. The total amount of sample data available within the Mirage is 128K. The Mirage is designed so that this 128K bytes of sample data is divided into two separate 64K sample memories which Ensoniq refers to as the UPPER and LOWER halves. Because OASIS allocates 64K of memory for sample data, it can only deal with one of the Mirage halves at a time. Because the Mirage treats these two sample regions separately, this is no problem. (For several other OASIS pages it is NOT appropriate to deal with the Mirage halves separately. When it is appropriate to consider both halves together, OASIS does so. More about that later.)

You may be wondering why a comparison between the OASIS memory capacity and the Mirage memory capacity is important. After all, if the Mirage has plenty of memory why does OASIS need alot too? The answer is that in order for OASIS to draw those nice Mirage waveforms on the screen it must first COPY the Mirage memory's contents into your 130XE computer. OASIS is capable of copying the entire contents of a Mirage keyboard half (64K bytes of sample data) into the 130XE's memory and displaying it on the 130XE's screen.

### 3.3.2.2 The Display Waveform "NO WAVESAMPLE LOADED" Page

Normally when the Display Waveform Page starts up it draws whatever sample waveform you were last looking at. But what if you haven't looked at a wavesample yet? The first time you enter the Display Waveform page after starting up OASIS it will prompt you with the screen shown in FIGURE 2.

This prompt means that OASIS has detected that NONE of the Mirage wavesample memory has been copied into the 130XE since you started up OASIS. Since this is the case, the program asks you which of the Mirage memory halves you would like to work with, the Upper half or the Lower half. Remember that the Display Waveform page can only deal with one of the Mirage wavesample memory halves at a time.

You must enter either a U or an L in response to the prompt. You must then press the RETURN key. By doing this you will chose which memory half of the Mirage you want to work with.

After you press the RETURN key the OASIS will come back with the following prompt:

Enter wavesample number:

The reason that OASIS has prompted you again is that even though you have told it which half of the Mirage memory you want to deal with, it still needs to know which wavesample you would like to look at first. As you may remember from your Mirage manual, there are up to eight wavesamples per Mirage half. So, you must enter a number between 1 and 8 in response to this prompt followed by the RETURN key. After you do this OASIS will begin pulling the sample data for that wavesample over from the Mirage. Once this begins to happen you will see a status line at the bottom of the screen which will look like this:

Loading sample LOWER 3. Pages left:XX

**NO WAVESAMPLE LOADED**

**Pick keyboard half,  
Enter U for upper L for lower:**

**FIGURE 2 - NO WAVESAMPLE LOADED PAGE**

In place of the "XX" there will be a number which will count down. This number is the count of the number of pages in the sample which remain to be loaded from the Mirage. The number counts down as OASIS pulls the wavesample data out of the Mirage and stores it into the 130XE computer's memory. Because this process can take a long time, OASIS print a number that counts how many pages remain to be copied.

Why does it take so long for a large wavesample to be read into the 130XE memory? The answer is that there is ALOT of data that has to be transmitted! Each "page" of wavesample memory consists of 256 samples. OASIS is capable of pulling samples from the Mirage at a rate of about 2 pages per second. This is about 512 Mirage samples every second. In addition to receiving the data from the Mirage, OASIS must also unpack it and store it away. A typical wavesample might consist of about 32 pages which will take OASIS about 16 seconds to load from the Mirage. Note, however that once the data has been pulled from the Mirage it never needs to be copied again. This is because OASIS has enough room to store 65536 bytes of sample data.

OASIS' ability to store so much sample data is what permits it to offer features like 8 levels of zooming which are not found on many other Mirage sample editor programs. Also, many other sample editors have to repeatedly pull the sample data from the Mirage every time you look at it which makes these systems much slower to use than OASIS.

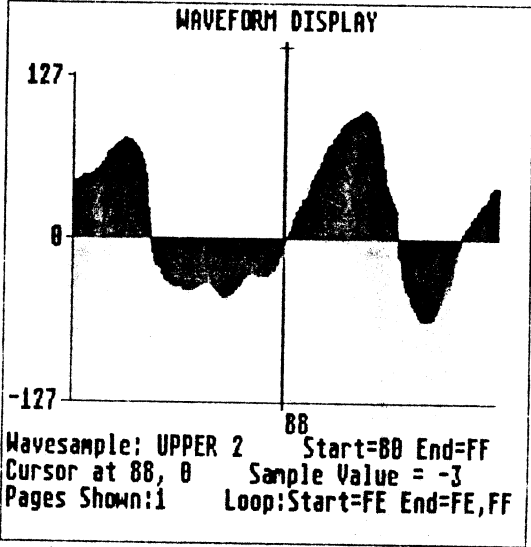
### 3.3.2.3 Waveform Display Page Format

If you have read the previous section then you should have made it through the NO WAVESAMPLE LOADED page of the Waveform Display Page and should now have loaded a wavesample across from the Mirage and should see it displayed on the screen. The display should look like the screen shown in FIGURE 3.

As you can see, most of the screen is devoted to a graph of the waveform itself. However, there are a number of fields at the bottom of the screen which are very important. Each of these fields is discussed below.

Looking at the first of the three lines shown at the bottom of the screen we find the "Wavesample" field. Here, OASIS keeps track of the the keyboard half and wavesample number of the current wavesample. The "current wavesample" is defined to be the wavesample in which the Sample Cursor currently lies. For example, if you have selected the upper half of the Mirage and the Sample Cursor currently lies in a region of memory which is allocated to wavesample number 2 then the "Wavesample" field will contain the text "LOWER 2". The text shown in the "Wavesample" field changes whenever the Sample Cursor is moved from one wavesample's memory region to another. This movement of the Sample Cursor may be accomplished by several means which will be discussed soon.

Just as the "Wavesample" field establishes which wavesample's data you are currently moving around in, the next two fields on the first line of the bottom of the screen tell you some more information about the particular wavesample. Each wavesample has a start and end page number which tells where the wavesample resides in memory. The "Start" and "End" fields contain these page numbers. As you move through a wavesample, these numbers won't change; they will only change when you cause the cursor to skip into a new wavesample's memory region. The values shown here correspond to the start and end page numbers which are controlled directly by the "Memory Allocation" Page of OASIS.



**FIGURE 3 - WAVEFORM DISPLAY PAGE**

Now let's move on to line two of the three lines shown on the bottom of the page. The first field on the second line is the "Cursor at" field. This field always shows the current location in memory of the Sample Cursor. This location is displayed as a page number followed by a sample number. As you move the Sample Cursor, these numbers will change to indicate where in memory the Sample Cursor currently is.

The second field of the second line is called the "Sample Value" field. This field always prints out the value (or amplitude) of the sample on which the Sample Cursor currently lies. As the Sample Cursor is moved through memory, this value will change. For samples which are below the zero line of the display, this field will display a negative value. For samples which are above the zero line, a positive value will be shown. The range of possible sample values is -127 to 127.

Now let's move on to the third of the three lines at the bottom of the Waveform Display Page. The leftmost field of this line is the "Pages Shown" field. This is a very important field which tells the user to what magnification the screen is currently set. It does this by telling you how many pages of wavesample memory are currently shown on the screen. When OASIS is at its highest magnification the "Pages Shown" indicator will read "1" which means that only one page of sample memory is visible and it is shown at its highest magnification. As you zoom out (using commands that will be discussed later) the number displayed in the Pages Shown field will increase. This is because as you zoom out, you can see more and more sample data.

Now that we have discussed the three lines of information at the bottom of the screen let's discuss the line immediately above those three lines. This line contains markers which tell what portion of wavesample memory is currently being displayed in the display window. The start of each page is marked by a "tick" mark and is labeled with the hex number for that page. This label line can be thought of as a "ruler" which tells which portion of the screen is visible and how it is divided up.

### 3.3.2.4 Basic Operation of the Waveform Display Page

Now that you have a better understanding of the parameters displayed on the Waveform Display Page, it is time to learn about the many commands available on this page.

As mentioned in the preceding section, the Sample Cursor is the vertical bar with the cross on top. This Cursor is used by the user to "point" at a particular sample of data. Obviously, in order to be of any use, Oasis must provide you with commands which permit the Sample Cursor to be moved. It also needs commands to manipulate the sample data. The remainder of this section deals with these commands.

The first commands that you should learn about are the ones which allow you to move the Sample Cursor. There are four commands which move the Sample Cursor. They are listed below:

Command's action	Key to press
Move cursor right one tick	>
Move cursor left one tick	<
Move cursor right fast	CONTROL+>
Move cursor left fast	CONTROL+<

As you use these commands you will see the Sample Cursor move to the left or right. When it reaches either edge of the screen, it will go no further. Each time that the Sample Cursor moves, it is at a different sample in the wavesample memory. The value of the sample that the Sample Cursor is currently on is displayed on the "Sample Value" field as described in the preceding section. This value will change every time the Sample Cursor moves.

You will also notice that the values shown in the "Cursor at" field will also change as the Sample Cursor is moved. The two values shown in this field give the position of the Sample Cursor so that is why they change as the Sample Cursor is moved.

Once you have learned to move the Sample Cursor around in the display window you will want to learn about the other commands. The table below gives a complete list of all of the commands available on the Display Waveform Page:

Key To Press	Action Performed
I	Zoom in 1 level
O	Zoom out 1 level
CONTROL+I	Zoom in to maximum magnification
CONTROL+O	Zoom out to show entire wavesample
W	Move display window to new wavesample
H	Change keyboard halves
P	Move to a particular page
+	Advance one "screen-full"
-	Go back "screen-full"
L	Set loop point to Cursor position
Q	Query Mirage for parameter values
S	Set MASOS Source Start to Cursor position
E	Set MASOS Source End to Cursor position
D	Set MASOS Destination to Cursor position
N	Set current sample to new value
G	Enter Graphics drawing mode

Each of the commands listed in the table above is discussed in the section below. Remember that this section is intended to provide general information to the new user of OASIS. If you want to look up detailed information on any of these commands refer to the reference section of the this manual which is contained in section 5.

The "I" command will cause OASIS to increase it's level of magnification by one. In other words, pressing the "I" key will cause the OASIS display to "zoom in" one level. This will cause the sample data to be redrawn. The "ruler" shown at the bottom of the sample display will be redrawn so that the display will be labeled properly for the new magnification. Also, the "Pages Shown" field of the display will change to reflect the fact that fewer pages are now visible because the magnification has increased.

The "O" command is the opposite of the "I" command. It causes OASIS to "zoom out" from the sample data. After this command is pressed you will see more of the wavesample that you are looking at but it will be displayed at a lower magnification. When you press the "O" key the wavesample data will be redrawn. The "ruler" at the bottom of the display will also be redrawn so that it correctly shows what portion of the wavesample is now visible in the display.

If you hold down the "CONTROL" key of the 130XE keyboard while you press the "I" key, OASIS will "zoom in" to the maximum magnification. This command is very useful when you are looking at an entire wavesample in a lower magnification and you decide you'd like to take a close look at one portion of the wavesample. (For example, you may need to look at a portion of a wavesample to see if a good loop could be made there). While you could press "I" repeatedly to zoom you in one level of magnification at a time, this might take a few key presses if you are at a high magnification. The "CONTROL+I" command allows you to zoom in to the maximum magnification with a single keystroke.

If you hold down the "CONTROL" key of the 130XE keyboard while you press the "O" key you will cause OASIS to "zoom out" from the wavesample data so that the current wavesample is shown in its entirety. In other words, if you want to see the entire wavesample that you are looking at you should press "CONTROL+O". Note that the "current" wavesample is the one whose name is shown at the bottom of the screen (for example, "UPPER 2"). When you press "CONTROL+O" OASIS looks at the wavesample that you are currently examining and computes a magnification that will allow the entire wavesample to be seen on the screen. For that reason you cannot always predict which magnification this command will select; it depends on the size of the wavesample.

By pressing the "W" on the keyboard you can cause OASIS to move to a different wavesample. Since there are as many as 8 wavesamples in each half of the Mirage memory, this command will prompt you for a wavesample number. You should respond to the prompt with a number from 1 to 8. If OASIS detects that that wavesample has not yet been pulled across the MIDI interface, it will do so immediately. If the wavesample is already present in memory, then OASIS will simply switch to that wavesample.

The "H" key will cause OASIS to erase all of the wavesample data which is currently in the OASIS buffer. You should only use this command when you wish to switch keyboard halves from UPPER to LOWER or vice versa. (If you press the "H" key by accident you can abort the operation because OASIS will prompt you to make sure you REALLY want to erase all of the OASIS wavesample buffer). After you press the command, OASIS will ask you if you are sure if you really want to change keyboard halves. If you do, you should respond to the prompt with a "Y" to indicate that "YES" you do want to change halves. After you do this, OASIS will erase memory and will drop back into the "NO WAVESAMPLE LOADED" display of the DISPLAY WAVEFORM Page. See section 3.2.2.2 for a description of what to do next.

As you move through the wavesample data using the zooming commands you will notice that the "ruler" on the bottom of the wavesample display constantly changes so that it tells you which portion of the keyboard half you are currently looking at. Sometimes you may want to jump to a particular page number of memory. You can do this using the "P" command. If you press the "P" key on the 130XE OASIS will ask you for a page number in hex. After you enter this number followed by a RETURN, the wavesample page will change so that you can see that page of memory.

If you press the "+" key OASIS will advance the wavesample display so that you will see the next "screen full" of wavesample data. In other words, if you are looking at a screen full of sample data and you want to see what wavesample data immediately follows that screen, you would press the "+" key. The wavesample would then clear and then the wavesample data which follows the current screen would be displayed. (Of course if you are at the end of wavesample data, the "+" key will have no effect because you are at the end of the wavesample memory).

If you press the "-" key OASIS will back up the wavesample display so that you will see the previous "screen full" of wavesample data. In other words, if you are looking at a screen full of sample data and you want to see what wavesample data immediately preceding that screen, you would press the "-" key. The wavesample would then clear and then the wavesample data which precedes the current screen would be displayed. (Of course if you are at the start of wavesample data, the "-" key will have no effect because you are at the start of the wavesample memory).

You can use the "L" key to control the loop setting for the current wavesample. When you press the "L" key OASIS will ask you if you wish to control the loop start or end. You will see the following prompt at the bottom of the page:

Set loop. Hit S for Start, E for End:

You should respond to this prompt with an "S" if you want to set the loop start and with an "E" if you want to set the loop end. The loop start or end will be set to wherever the Sample Cursor currently is. (Note that it is not possible to set the loop start BEYOND the loop end or to set the loop end BEFORE the loop start. If you attempt to do this, OASIS will print an error message). You should notice that if you choose to set the loop start and the Sample Cursor does not lie on a page boundary the actually setting of the loop start will be at the start of the page. This is because the Mirage will only permit the loop start to be set on a page boundary. This is NOT true in the case of the loop end. The Mirage can set a loop end on any sample. If you respond to the prompt with anything other than an "S" or an "E", the loop setting operation will be aborted.

The "Q" key causes OASIS to interrogate the Mirage and verify that all of the parameter settings contained in OASIS memory match those that the Mirage currently has. Theoretically, this command should not be necessary, because OASIS maintains an exact copy of the the parameters in the Mirage. In some cases however, it is possible that due to a hardware problem, the Mirage and OASIS may get "out of step". If you ever suspect that this has happened, you can use the "Q" command to bring the Mirage and OASIS back into step. The "Q" key causes the Mirage to transmit all of its current parameters settings to the Mirage.

The "S" key is used to set the value of the MASOS "Source Start" parameters (parameters [85] and [86]). You can set the value of these parameters directly from the MASOS control page of OASIS but in some cases you may want to set them while you are looking at the wavesample data. When you press the "S" key, OASIS will prompt you to verify that you do, in fact, want to change the value of the MASOS Source Start parameters. You will see the following prompt:

Set MASOS Source Start. Ok (Y/N)?

If you respond with a "Y", OASIS will change the value of these parameter to match the current location of the Sample Cursor. You can immediately verify for yourself that the change actually occurred by flipping to the MASOS Page of OASIS and checking the current values of parameters [85] and [86] to see if they now match the location of the Sample Cursor.

The "E" key can be used to control the value of the MASOS Source End parameters (parameters [87] and [88]). If you press this key, OASIS will ask you to confirm your decision to alter the value of the Source End parameters. You will see the following prompt:

Set MASOS Source End. Ok (Y/N)?

If you respond with a "Y" to this prompt these parameters will be changed to match the current location of the Sample Cursor.

The "D" key can be used to control the value of the MASOS Destination parameters (parameters [89] and [90]). If you press this key, OASIS will ask you to confirm your decision to alter the value of the Destination parameters. You will see the following prompt:

Set MASOS Dest. Start. Ok (Y/N)?

If you respond with a "Y" to this prompt these parameters will be changed to match the current location of the Sample Cursor.

The "N" key is used to alter the value of the sample currently selected by the Sample Cursor. This is the value displayed by the "Sample Value" field. When the "N" key is pressed, OASIS displays the following prompt:

Enter sample value (-127 to 127):

You should respond to this prompt with a value ranging from 127 to -127 followed by a RETURN. OASIS will then change the value of this sample in the Mirage. The value displayed in the "Sample Value" field will immediately change to the value you that you entered. While it is possible to redraw a wavesample using this command (by changing each sample one-by-one) it is more efficient to use the "G" command to do this. See the following paragraph.

Typing "G", while in the Waveform Display Page, will enter you into the mode that allows you to redraw your samples. The "ESC" key, escapes you out of this mode and back into the Wavesample Display mode.

You can ONLY enter the "Graphics drawing mode" when you are at the maximum OASIS magnification. You can always tell if you are at the maximum magnification by looking at the "Pages Shown: " field. This field must contain a "1" before OASIS will permit you to enter the Graphics mode. If you attempt to enter graphics mode when you are NOT in the highest magnification, OASIS will display the following on the last line of the display:

No GRAPHICS when Pages Shown=1 !

The prompt will disappear after a few seconds.

When you press "G" when you are at the highest OASIS magnification, the Sample Cursor will vanish and you will see the following text at the bottom of the OASIS display:

GRAPHICS:Use arrows to draw.

You may now begin drawing! Use the RIGHT, LEFT, UP and DOWN ARROW keys to alter the shape of the waveform. The ARROW keys perform the following functions:

1. RIGHT ARROW - move right one sample
2. LEFT ARROW - move left one sample
3. UP ARROW - increase the sample value
4. DOWN ARROW - decrease the sample value.

When you enter the GRAPHICS mode, you will start you drawing from where the Sample Cursor was when you hit the "G" key. Because the Sample Cursor vanishes when you are in Graphics mode it may be a bit difficult at first to see where you are drawing. If you press the "G" and get "lost" you can easily find out where you are by pressing the "ESC" key, which also gets you out of the Graphics mode. The Sample Cursor will be displayed again, showing you where you are. You may then re-enter the Graphics mode by pressing the "G" key again.

The Graphics drawing mode is fully interactive with the Mirage, that is, as you change the sample on the OASIS screen, that change is sent to the Mirage. You can play the Mirage as you redraw the wavesample and hear the results of your changes.

### 3.3.2.5 Other Features of the Waveform Display Page

There are a few features of the Waveform Display page which you will only begin to notice as you use the commands that were discussed in the previous section.

### 3.3.3 The Wavesample Parameter Page

The OASIS Wavesample Parameter Page can be reached from the OASIS Main Menu Page by pressing the "W" key on the 130XE keyboard. It may also be reached from any other OASIS page by pressing the "W" key while holding down the CONTROL key. The format of the Wavesample Parameter page is shown in FIGURE 4.

This page permits the user to control all of the Mirage parameters that affect a particular wavesample. Each parameter is shown with a description and a number in square brackets. (Note: the parameter number is the number that Ensoniq has assigned to the parameter. All of the parameter numbers shown by Oasis correspond to the Ensoniq documentation including the Mirage quick reference card).

Before we get into a discussion of how to change the value of a parameter, let's talk about the prompt that appears at the bottom of the page. This prompt reads as follows:

```
      Select parameter to change  
      or 'W' to change wavesample:
```

This prompt is asking you to enter a number for one of the parameters OR to press the "W" key. You should press the W key when you want to see the parameters for a wavesample OTHER than the one whose name appears on the third line of the display. For example, let's say that the third line of the display shows the following:

```
      CURRENT WAVESAMPLE: LOWER 2
```

This means that all of the parameters shown on the page are for wavesample LOWER 2. If you are finished adjusting LOWER 2's parameters you can switch to a different wavesample's parameters by pressing W in response to the prompt at the bottom of the page. When you do this OASIS will respond with:

```
      Enter wavesample number:
```

WAVESAMPLE PARAMETER PAGE

CURRENT WAVESAMPLE: LOWER 1

MEMORY:

Start: [60]:A0  
End [61]:BF

LOOP:

Start [62]:BE      TUNING: Coarse [67]:4  
End [63]:BF      Fine [68]:17  
End Fine [64]:80  
Loop Switch [65]:1

Relative Magnitude [69]:63  
Relative Filter Freq [70]:23  
Max Filter Freq [71]:99

Select parameter to change  
or 'W' to change wavesample:

FIGURE 4 - WAVESAMPLE PARAMETER PAGE

You must respond to this prompt with a number between 1 and 8 followed by a RETURN. When you do this, OASIS will prompt you one more time as follows:

Enter U for upper L for lower:

You should respond by pressing a U or an L and pressing the RETURN key. When you have done this, the CURRENT WAVESAMPLE display at the top of the screen will change to reflect the wavesample that you just selected. Also, all of the parameter values on the page will change to the current settings for that wavesample. You may change them as you wish using the procedure described below.

To change the value of one of the parameters, the user should enter the parameter's number which is shown next to the parameter's name in square brackets. After you enter the number of the parameter that you want to change you should press the RETURN key. When you do this, OASIS will prompt you for the new value of the parameter. For example, let us say that you wish to change the value of parameter number [60] which is the MEMORY Start parameter. After you type "60" followed by a RETURN, OASIS will prompt you as follows:

Enter new value of  
Parameter [60] :

You must then type the new value of the parameter followed by a RETURN. When you do this, OASIS will send the new value to the Mirage. While this is happening, the display of the Mirage will flicker and OASIS will display the following message:

Sending change to Mirage..

When the parameter has been changed (which in some cases may take several seconds) the message shown above will disappear and the familiar prompt will reappear.

If you ask OASIS to change a parameter to a value which is out of range, it will display an error message. For example, if you try to change the value of parameter [69] to say, 99, you will get the following error message from OASIS:

Value out of Range.  
Range for [69] is 0 to 63.  
Hit any key to resume

OASIS is telling you that the new value for that you specified for that parameter is outside of the valid range. OASIS will not permit you to do this and so no change is transmitted to the Mirage. When you have finished reading this message, press any key on the keyboard and the message will disappear and the familiar prompt will reappear.

### 3.3.4 The Keyboard Map Page

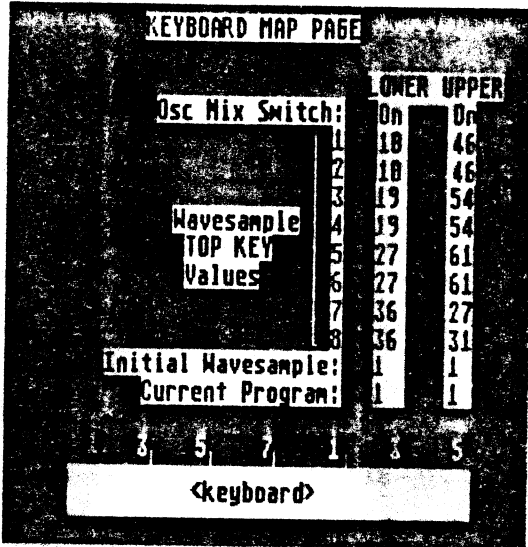
The OASIS Keyboard Map Page can be reached from the OASIS Main Menu Page by pressing the "K" key on the 130XE keyboard. It may also be reached from any other OASIS page by pressing the "K" key while holding down the CONTROL key. The FIGURE 5 shows the Keyboard Map Page of OASIS.

The Keyboard Map page provides a means for adjusting the Top Key parameters of the Mirage which control on which keys of the Mirage each of the wavesamples will play. The interaction of the different Top Key parameters can be a bit bewildering to a newcomer to the Mirage so the Keyboard Map Page is provided to make the whole process easier. The Page does this in three ways:

1. All of the 16 Top Key parameter values along with the two Initial Wavesample parameters (parameters [27], one for Upper and one for Lower) and allows them to be changed right on the computer screen.
2. The assignment of wavesamples to keys is shown graphically on the keyboard display at the bottom of the display. This display is updated dynamically as the values of the parameters are changed so that the effect of a change is immediately displayed.
3. It allows the user to actually play notes on the Mirage from the 130XE keyboard. This is especially useful for owners of the MultiSampler (the rack-mount Mirage) who can hear notes being played on the MultiSampler without having to hook up a separate MIDI keyboard controller.

Let's discuss the layout of the Keyboard Map Page. The page consists of two main sections: the parameter values which are displayed as two vertical columns on the righthand portion of the screen with labels off to the left and the keyboard map on the bottom of the page. The left column contains the values of the parameters for the LOWER portion of the keyboard. The right column contains the values of the parameters for the UPPER portion of the Mirage. For each of these columns the following parameters are shown:

1. The values of the Oscillator Mix Mode parameter ([28]) This parameter cannot be modified from the Keyboard Map Page. This is because the Mirage only permits this parameter to be set when sampling is done. Once the sampling data has been generated, this parameter cannot be changed. The reason that it is displayed on this page is because the value of this parameter (On or Off) effects how the Top Key parameters work. This will be discussed in more detail later on.
2. The values of all eight of the Top Key parameters are shown in each column immediately below the "Osc Mix Switch" values. These are the values which control where each of the Mirage wavesamples will actually be heard on the keyboard.



**FIGURE 5 - KEYBOARD MAP PAGE**

3. Next is the value of the Initial Wavesample parameter [27] for each of the two keyboard halves. As described in the Ensoniq manuals this parameter is used to tell the Mirage to ignore the first few Top Key parameters of a keyboard half. We will discuss the interaction of this parameter with the others in more detail in section 3.3.4.
4. The last line of the two columns contains the value of the current Program for the upper and lower halves of the Mirage. This value is shown and can be edited. It is displayed here because the value of the Initial Wavesample parameter [27] is different for each of the up to four programs per keyboard half. As the program parameter is changed by the user, different values of the Initial Wavesample parameter will be called up and the keyboard mapping at the bottom of the page will change to reflect the new prevailing value of that parameter. (More about this later).

Now that we have touched on each of the values displayed in the two columns lets discuss how you would go about changing them. If you scan the two columns you will find that one of the numbers shown will have a cursor displayed on top of it. This cursor is what is used to change the value of one of these parameters. To change the value of a parameter it is only necessary to place the cursor on top of the value to be changed, enter the new value, and press the RETURN key. The value will be sent to the Mirage immediately and the keyboard map displayed on the bottom of the screen will change to reflect any change in the keyboard map as necessary.

In order to change the value of a parameter as described above you must know how to move the cursor around on the display. That is easy, just use the ARROW keys of the 130XE keyboard in conjunction with the CONTROL key. The arrow keys are located on the right portion of the keyboard near the RETURN key. To move the cursor around in the two columns hold down the CONTROL key while pressing any of the four arrow keys. The cursor will move to the right, the left, up or down depending on the key pressed. (Note that pressing the RETURN key by itself has the same effect as pressing the 'right arrow' key while press the CONTROL key). You should practice moving the cursor around the two columns using the CONTROL and arrow keys.

Now that we've covered changing of the parameters shown in the two columns lets talk about what the keyboard map display at the bottom of the page means. You will notice that there are several numbers displayed above the keyboard along with a couple of small vertical lines or "tick" marks. The "tick" marks divide the keyboard into sections. Each section will play a single wavesample. The wavesample that is heard when those keys are pressed is indicated by the number which appears just to the left of the tick mark. Note that if the "Osc Mix Switch" is ON then even wavesamples do not play individually but are "stacked" with the odd wavesamples so that two wavesamples are heard per region. This is a feature of the Mirage. The decision to turn "mix mode" on or off must be made by the user when the samples are made and cannot be changed thereafter. When the "Osc Mix Switch" is ON the keyboard map is affected. The effect is that even wavesample numbers will never appear on the map, only odd ones. In this case the user should realize that the each even numbered wavesample which not shown "stacked" with its companion odd numbered wavesample (which is always the wavesample that is one less than the even one).

For example, if the "Osc Mix Switch" is ON, and a region of the keyboard is labeled by OASIS with a "3", then actually wavesample number "3" AND "4" will be heard together on that region of the keyboard. You will also notice that when the "Osc Mix Switch" is ON, that changing the even numbered TOP KEY values will have no effect on the keyboard map displayed by OASIS. This also is feature of the Mirage: even TOP KEY values do not effect the mapping of the keyboard when oscillator mix mode is ON.

There is one other feature of the Keyboard Map Page which is of GREAT interest to owners of the MultiSampler (the rack-mount Mirage) but which is also a great convenience for the owners of the regular Mirage. This feature permits you to play notes on your Mirage or MultiSampler from the 130XE keyboard. The feature is always available on the Keyboard Map Page and operates as follows:

**TO PLAY NOTES:** Press any key on the bottom three rows of the 130XE keyboard. This will cause notes to start playing on Mirage or MultiSampler. As the notes are turned on OASIS will indicate which note is on by placing a "tick mark" below each key that is turned on. Unfortunately, there are not enough keys on the 130XE keyboard for each of the 60 kets on the Mirage keyboard. As a result you can only play notes on one half of the keyboard at once. OASIS provides a method for allowing you to switch from playing notes on one half to playing notes on the other half. See the third paragraph below.

**TO TURN OFF NOTES:** Press the "space bar" of the 130XE keyboard. This will send a MIDI "All Notes Off" command to the Mirage or MultiSampler causing all notes to stop. It will also erase all of the "tick marks" shown below the keyboard on the OASIS screen.

**TO PLAY NOTES OTHER HALF OF THE KEYBOARD:** Press the TAB key of the OASIS keyboard while holding down the CONTROL key. Each time you do you will cause OASIS to switch from allowing you to play notes on the upper half of the keyboard to playing notes on the lower half of the keyboard or vice versa.

The ability to play notes from OASIS can be alot of help. For owners of the MultiSampler, it permits them to check out the changes they have made to a wavesample without having to unplug cables or to use a switchbox. For those who would like to know, when notes are played on the Mirage from the 130XE keyboard the velocity value that is used is midway between the highest and lowest velocity value permitted by the MIDI specification (the actual value used is 64 decimal).

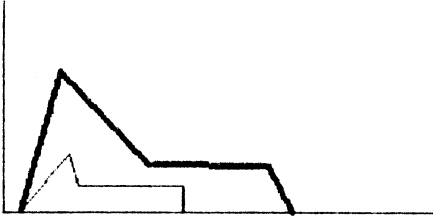
### 3.3.5 The Envelopes Page

The Envelopes Page is reached by press the letter "E" on the OASIS MAIN MENU Page or by press "E" while holding down the CONTROL key from any OASIS page. The format of the Envelopes Page is shown in FIGURE 6.

The Envelopes page is used to control the Mirage envelopes. In order to obtain a good understanding of the information that this page requires you must understand that the Mirage has four envelopes for each program. (recall that there four programs per keyboard half). The Envelopes Page only displays two envelopes at a time. Therefore it provides a means for changing not only the current program but also flipping between the two pairs of envelopes available for each program. The envelopes are organized as follows:

# ENVELOPE PAGE

Envelopes: VOLUME      Program: LOWER 1



KEY: — LEVELS, — VEL. SENS.

- A> Attack      10      14
- P> Peak        27      14
- D> Decay       28      4
- S> Sustain     4       2
- R> Release    10      0

- C> Change current program
- F> Flip between Filter/Volume
- T> Toggle between columns

Enter menu selection:

FIGURE 6 - ENVELOPE PAGE

**THE VOLUME ENVELOPES:** These envelopes control the volume of a wavesample as it is played back by the Mirage. Volume may also be thought of as amplitude and is often referred to as such. One of the envelopes controls the basic "level" of the volume envelope. The other controls the velocity sensitivity of the volume envelope. If you were adjusting a new envelope for a sound you would probably start with the "level" envelope for the VOLUME and give the shape that you wanted. Then, if you wanted the shape of the envelope to respond to the velocity with which the key is pressed, you would then set up the velocity envelope.

**THE FILTER ENVELOPES:** Like the VOLUME envelopes the FILTERs of the Mirage have two envelopes: one for the "level" of the filter and another which describes how the filter level responds to velocity sensitivity. The Mirage envelopes are very similar to analog synthesizers. The higher a filter's level, the "brighter" the sound will be. When adjusting the filter level and velocity sensitivity, you would start with the "level" envelope setting it up so that the sample's "brightness" was what you had in mind. Then you would edit the FILTER velocity sensitivity envelope to cause the brightness to respond to velocity sensitivity. For example, if you had a sound which was a sample of an electric piano, you might adjust the FILTER velocity sensitivity envelope so that the "peak" value that the filter reached was fairly low if the keys were struck lightly but were fairly high if they were struck quickly. By doing this your sound would be "bright" when the keys were struck hard and would have a "dark" sound if they were struck softly just like a real electric piano.

Now that we have a basic understanding of the Mirage envelopes and how they are displayed by OASIS, let's get down to specifics. (By the way, if you are not familiar with analog synthesizer filters or have not already read about filters or envelopes in the Ensoniq documentation, you consult the MASOS manual now before proceeding with the rest of this section). If you look at the Envelopes Page of the Mirage you will notice that the second line of the display contains two fields which contain information in capital letters. On the left side is a field labeled "Envelopes:" which is followed by either the word "VOLUME" or "FILTER". This field indicates whether the currently displayed envelopes are for volume or filter (these are the two main categories of envelopes displayed by OASIS as we just discussed in the two paragraphs above). To cause OASIS to flip from displaying the "FILTER" envelopes to the "VOLUME" envelopes or vice versa, simply press the "F" key. The envelopes which are drawn in the center of the display will be redrawn and the "Envelopes" field will flip from "VOLUME" to "FILTER" or vice versa. You will also notice that there is a reminder at the bottom of the page about this command. There is a line of text there that says:

F> Flip between Filter/Volume

This line reminds you that the "F" key is the key which will flip you between these two choices.

Looking again at the top line of the display you will notice that there is field in the left portion of that line which contains the label "Program:" followed by a capital letter caption which says either "UPPER" or "LOWER" followed by a number from 1 to 4. This field indicates which of the Mirage keyboard half programs is currently being displayed. To change the current program, press the "C" key. This will cause a prompt to appear at the bottom of the page:

Enter program number:

You must respond to this prompt with a number from 1 to 4 followed by the RETURN key. If you respond with any number outside of the range of 1 to 4, the prompt will be repeated. When you do this you will see another prompt:

Enter 'U' for Upper. 'L' for Lower:

You must respond to this prompt with a "U" or an "L" followed by a RETURN to indicate whether you want to look at an upper keyboard program or a lower keyboard program. When you press RETURN in response to this second prompt, OASIS will display then new envelopes and will change the "Program:" label in the upper right portion of the page so that it indicates the program that you have selected. Note that there is a reminder of the function of the "C" key near the bottom of the screen. There you will see a line of text which says:

C> Change current program

Now that the information shown at the top of the screen has been described and the commands which control this information are understood, let's move on to the envelopes themselves. As we mentioned before, two envelopes can be seen at once. The two envelopes are differentiated from one another by the fact that one of the envelopes (the "level" envelopes) is always drawn with a thick line while the other (the velocity sensitivity envelope) is always drawn with a thin line. If you forget which is which there is a "Key: below the envelope page which shows that a thick line is for LEVELS and a thin line for VEL. SENS. The two graphs show the values of the envelopes as time passes. The vertical axis gives the height of the envelope while the horizontal axis is time. As the parameters which control an envelope are changed, the envelopes are redrawn.

We have discussed how the major portions of the Envelope Page are controlled and what the envelope graphs really mean but we still have not discussed how the envelopes themselves are adjusted by the user. We will do this now. You will notice that below the envelope drawings there are two columns of five numbers each. Above the column on the left is a label which says "LEVELS". Above the column on the right is a label which says "VEL. SENS.". The five numbers in these columns are the parameters which control the five-stage Mirage envelopes shown in the graphs. If you look at the left portion of this part of the display you will see the labels "Attack", "Peak", "Decay", "Sustain" and "Release". These five labels indicate which if the five numbers in each of the columns controls each part of the envelopes. You will also notice that each of these five labels is preceded by a letter followed by a ">" sign. For example, the "Attack" label actually looks like this:

A> Attack

The letter "A" shown indicates that in order to change the value of an attack parameter values you must first press the "A" key on the 130XE keyboard. There is one problem though: If you press the "A" key which of the two Attack values do you want to change? The Attack value in the left column (for the LEVELS envelope) or the Attack value in the right column (for the VEL. SENS. envelope)? The answer is that it depends on which column is selected. The selection of columns is accomplished by pressing the "T" key which causes the double arrow at the bottom of the screen to switch from column to column. Press the "T" key a couple of times and watch that double arrow jump back and forth between the two columns. When you have selected the column that you want to edit you may then change each of the five parameters in that column by pressing the letter that is displayed beside each of the five envelope stage labels. or example, if you were editing the FILTER envelopes of a program and you wish to change the "Peak" parameter for the "LEVEL" envelope, you would first press the "T" key until the double arrow was underneath the "LEVELS" column (which is the left column). Then you would hit the "P" key. OASIS would display the following prompt at the bottom of the display:

Enter new value for  
Filter Level Peak:

OASIS is asking you for a new value of the Filter Level Peak. You should enter the new value (from 0 to 31) followed by a RETURN. OASIS will then update the value to the Mirage and redraw the envelope on the screen. you may also select any of the other five envelope stages for modification by pressing the key which corresponds to their name. You would press "A" for Attack, "P" for Peak, "D" for Decay, "S" for Sustain and "R" for Release. OASIS will always prompt you for the new value. The prompt will always contain the full name of the parameter that you are changing to avoid confusion.

You now know everything you need to operate the Envelopes page. As you can see there are alot of controls on the Envelope Page and things can be a bit overwhelming when first used, so let's summarize how all of the Envelope Page commands work:

Key(s) to Press -----	Function Performed -----
"T"	Toggle between columns
"A", "P", "D", "S" or "R"	Select a paramete for changing
"F"	Flip between FILTER and VOLUME
"C"	Change the current program

### 3.3.6 The Memory Allocation Page

The Memory Allocation Page is reached by press the letter "A" on the OASIS MAIN MENU Page or by press "A" while holding down the CONTROL key from any OASIS page. The format of the Memory Allocation Page is shown in FIGURE 7.

ALLOCATION PAGE

Current Keybd Half: LOWER

Sample Number	0	2	4	6	8	A	C	E	START	END
1									80	BF
2					—				67	88
3						—			81	9E
4	—								0	15
5							—	—	C8	FF
6		—							16	25
7			—						26	48
8				—					41	66

S> Switch to other keybd. half

FIGURE 7 - MEMORY ALLOCATION PAGE

The Memory Allocation Page shows the user what the current memory map stored in the Mirage is for one half of the Mirage. The half of the Mirage that is currently shown is indicated by the label in the upper right hand portion of the screen. There is a label "Current Keybd Half:" there. To the left of the label is a word "UPPER" or "LOWER". To change from "UPPER" to "LOWER" or vice versa simply press the "S" key on the 130XE keyboard. There is a line on the bottom of display which says:

"S> Switch to other keybd. half"

which reminds you how to accomplish this. When you press the "S" key there will be slight pause while OASIS interacts with the Mirage to effect the change in keyboard halves. After that, you will notice that the information displayed in the two columns on the left portion of the screen will change. Also, the horizontal bars shown in the center of the screen will also change. We will now discuss what this information means.

If you look to the left portion of the screen you will see a column of numbers from 1 to 8 with a label at the top that says "Sample number". This column labels eight rows of the display. Each of these rows contains information about the memory allocation for one of the eight wavesamples contained in the keyboard half.

If you look at the leftmost portion of the screen you will see two columns of numbers. The numbers in each column of the display correspond to the labels from 1 through 8 that appear on the left side of the screen. The numbers in the two columns represent the hex starting and ending addresses within Mirage memory of the corresponding wavesample. If you look at the center of the screen you will see a graphic representation of the numbers displayed in the two columns. A horizontal bar appears here which starts at the memory address of the START of the wavesample's memory area and ends at the END of the wavesample's memory region. The region covered by the horizontal bar is labeled by the tick marks which appear at the top and the bottom of this center portion of the display. The numeric labels contained there correspond to the first digit of the two digit hex numbers displayed in the right hand columns. For example if the START and END values shown in the two columns are A0 and C0 then the bar shown for that wavesample will extend from the tick mark labeled with an "A" to the tick mark labeled "C". Each of the eight wavesample's has a bar in the center of the screen which shows which region of memory it occupies.

Now that we have discussed what all of the information shown on the screen means lets discuss how it is changed. If you look at the two columns in the left portion of the screen you will see that there is a cursor there. To change the values of a hex number contained in one of these two columns you need only place this cursor on top of one of the numbers, enter the new hex value required and press the RETURN key. Then new value will be transmitted to the Mirage, and the horizontal bar shown in the center of the screen will change to reflect the new memory allocation of that wavesample. To move the cursor around these two columns you must hold down the CONTROL key while pressing one of the arrow keys located in the right portion of the 130XE keyboard.

### 3.3.7 The MASOS Page

The MASOS Page is reached by press the letter "M" on the OASIS MAIN MENU Page or by press "M" while holding down the CONTROL key from any OASIS page. The format of the MASOS Page is shown in FIGURE 8.

The MASOS page allows you to control the values of the MASOS parameters and then to perform MASOS operations. To modify the value of any of the parameters simply enter the number of the parameter (as contained in brackets, for example: [89]), followed by a RETURN. When you do this OASIS will prompt you for a new value for the selected parameter as follows:

```
Enter new value of
Parameter [89]:
```

You should respond to this prompt with the new value of the parameter followed by a RETURN. If the value is valid it will be sent to the Mirage and the value displayed next to the parameter number will also change. If the value is not valid, an error message will be displayed. For example, if you try to set the "Bank" parameter [94] to any value other than 0 or 1, say 4, you will get an error message:

```
Value out of Range.
Range for [94] is 0 to 1.
Hit any key to resume
```

Once you have set up the MASOS parameters you will want to perform MASOS operations. To do this simply press the key whose letter precedes the operation whose name appears on the MASOS menu. For example if you wish to perform a MASOS "copy", press the "C" key. When you do this, OASIS will not perform the copy right away, but will first prompt you with a message that tells you exactly what "copy" (or other) operation will be performed, based on the current values of the MASOS parameters. For example, when you try to do a copy you will see a message like the following (the values contained in the message will vary depending on the current values of the MASOS parameters):

```
Copy page 0, sample 0
thru page 20, sample 0
to page 40, sample 0
Ok (Y/N)?
```

If you respond to the prompt with a "Y" then the operation described will be performed. If you respond with anything else then the operation will be aborted. You will notice that in the message displayed there is no mention made of which keyboard half we are dealing with. But the MASOS commands must have a keyboard half for both the destination and the source. They obtain this as follows:

The source keyboard half is ALWAYS the keyboard half that is currently selected on the Waveform Display Page.

The destination keyboard half is controlled by the value of the "Bank" parameter [94]. A value of "1" for this parameter means that the UPPER bank is selected as the destination while a value of "0" for this parameter means that the LOWER bank is selected as the destination.

## MASOS PAGE

SOURCE START:      SOURCE PAGE:  
Page No. [85]:0      Page No. [87]:FF  
Sample No. [86]:0      Sample No. [88]:EF

DEST. START:      SCALE FACTORS:  
Page No. [89]:0      Start: [95]:0  
Sample No. [90]:0      End      [96]:FF  
Bank      [94]:1

A> ADD  
C> COPY  
I> INVERT  
P> REPLICATE  
R> REVERSE  
S> SCALE

Select parameter to change  
or make menu selection:

FIGURE 8 - MASOS PAGE

### 3.3.8 The Configuration Parameter Page

The Configuration Parameter Page is reached by press the letter "C" on the OASIS MAIN MENU Page or by press "C" while holding down the CONTROL key from any OASIS page. The format of the Configuration Parameter Page is shown in FIGURE 9.

The Configuration Parameter Page allows the user to control Mirage parameters which control the way the entire Mirage responds to certain action. The parameters are divided into two categories: GENERAL configuration parameters and MIDI configuration parameters. the operation of this page is just like the Wavesample Parameter Page in that the user selects a parameter by entering the parameter's number. OASIS then prompts for the new value of that parameter and when it is entered followed by a RETURN, the new value is transmitted to the Mirage.

For more information about the how to change parameter values, see the section on the Wavesample Parameter page.

### 3.3.9 The Program Parameter Page

The Program Parameter Page is reached by press the letter "P" on the OASIS MAIN MENU Page or by press "P" while holding down the CONTROL key from any OASIS page. The format of the Program Parameter Page is shown in FIGURE 10.

The Program Parameter Page allows the user to control all of the Mirage parameters which control a particular Mirage program. The parameters are divided into four categories: general program parameters, Low Frequency Oscillator (LFO) parameters, OSCILLATOR parameters and FILTER parameters.

The operation of this page is just like the Wavesample Parameters Page in that the user selects a parameter by entering the parameter's number. OASIS then prompts for the new value of that parameter and when it is entered followed by a RETURN, the new value is transmitted to the Mirage.

Note that like the Wavesample Page, you may change the current program more information about the how to change parameter values, see the section on the Wavesample Parameter page.

### 3.3.10 The Sampling Parameter Page

The Sampling Parameter Page is reached by press the letter "S" on the OASIS MAIN MENU Page or by press "S" while holding down the CONTROL key from any OASIS page. The format of the Sampling Parameter Page is shown in FIGURE 11.

For more information about the how to change parameter values, see the section on the Wavesample Parameter page.

## CONFIGURATION PARAMETER PAGE

### GENERAL:

Master Tune	[21]:50
Pitch Bend Range	[22]:2
Keyboard Vel. Sens.	[23]:30
Keyboard Balance	[24]:32
U/L Program Link	[25]:0

### MIDI:

Omni Mode Switch	[81]:0
MIDI Thru Switch	[83]:0
MIDI Enable Switch	[84]:1

Enter number of parameter  
to change:

FIGURE 9 - CONFIGURATION PARAMETER PAGE

**PROGRAM PARAMETER PAGE**

**CURRENT PROGRAM : LOWER 1**

**Initial Wavesample [27]:1**

**Mono Mode Switch [28]:1**

**LFO:**

**Frequency [31]:14**

**Depth [32]:1**

**OSCILLATOR:**

**Detune [33]:1**

**Mix [34]:27**

**Mix Vel. Sens. [35]:1**

**FILTER:**

**Cutoff Freq. [36]:12**

**Resonance [37]:0**

**Keybrd Tracking [38]:2**

**Select parameter to change  
or 'P' to change program:**

**FIGURE 10 - PROGRAM PARAMETER PAGE**

**SAMPLING PARAMETER PAGE**

**CURRENT WAVESAMPLE: LOWER 1**

Sample Time [73]:28  
Input Filter Freq [74]:88  
Mic/Line Switch [75]:1  
Sampling Threshold [76]:24  
Multisample Switch [77]:1  
IFS Filter Freq [93]:2

**W> Change Wavesamples**

**Select parameter to change  
or make menu selection:**

**FIGURE 11 - SAMPLING PARAMETER PAGE**

#### 4. GETTING THINGS DONE: SOME TYPICAL OPERATIONS AND HOW TO DO THEM

Most people who buy a product like OASIS don't buy it to learn how to use computers. They buy it to make it easier to perform certain operations. OASIS contains many commands and pages which allow you to control the Mirage. The question is, how do you use those commands to "get things done"? This section is designed to answer that question. Each of the sections which follow takes an common operation that a user would like to perform on the Mirage and tells you which OASIS commands should be used to "get it done".

##### 4.1 VIEWING WAVESAMPLES

If you want to see what a wavesample looks like you must first load that wavesample into the Mirage. You should consult the Mirage documents to find out how to do this but it is rather simple. It is important to remember that if you are going to use OASIS with your Mirage you must have first booted the Mirage with an Ensoniq MASOS disk. Assuming that this has been done here are the steps that you must take to look at a particular wavesample:

1. Load the sample into the Mirage by placing the Ensoniq sample disk the Mirage and pressing the appropriate keys on your Mirage.
2. Switch to the OASIS "Waveform Display" Page. You can do this by pressing the ESC key on the 130XE until you reach the OASIS MAIN MENU. Select the Waveform Display Page by pressing the "D" key.
3. When you press the "D" key you will see one of two possible displays. If you see a page with the label

NO WAVESAMPLE LOADED

then skip to step 4. If not then you already have some wavesamples loaded so you must first clear OASIS memory. To do this press the "H" key. OASIS will prompt you at the bottom of the screen as follows:

Change keybd. halves. Ok (Y/N)?

You should respond to this by press the "Y" key. When you do this, the screen will clear and you will flip to the "NO WAVESAMPLE LOADED" page.

4. When you have reached the OASIS "NO WAVESAMPLE LOADED" page you must tell OASIS which of the up to 16 Mirage wavesamples you want to look at first. First you tell the Mirage whether you want to look at one of the 8 UPPER wavesamples or one of the 8 LOWER wavesamples. Respond to the prompt near the bottom of the screen by pressing the "L" key or the "U" followed by the RETURN key. When you do this you will have selected the UPPER or LOWER half of the Mirage.

5. Now that you have selected which half of the keyboard you must now select the wavesample number (from 1 to 8) that you want. You should respond to the prompt:

Enter wavesample number:

with a number between 1 and 8 followed by a RETURN. When you do this OASIS will begin to load the wavesample from the Mirage. When it is done the wavesample will be displayed on the screen.

For more information about how to handle the wavesample after it is loaded (for example how to zoom in and out), look at section 3.3.2 for a "walk-through" of this page or consult section 5.1 for a more condensed reference guide to these functions.

#### 4.2 CHANGING A WAVESAMPLE'S LOOP SETTING

Changing a wavesample's loop settings is one of the most often used features of OASIS. Fortunately it is rather simple to do. First you must load the wavesample into OASIS so that you can look at it and determine where the loop setting should be made. To do this you should read section 4.1. Once you have the wavesample loaded, and you are in the WAVEFORM DISPLAY Page looking at the wavesample you can adjust the loop setting as follows:

1. First it is suggested that you take a look at the current wavesample setting if there is one. To do this you should zoom out until you can see the entire wavesample. You can do this by pressing the "O" key while holding down the CONTROL key. OASIS will display your wavesample at whatever OASIS magnification is needed to see the entire sample.
2. Once you can see the entire wavesample you should look to see if you can find the loop markers for the wavesamples. The loop markers are vertical lines drawn through the wavesample data. These two lines are connected by a dotted line. Note that if you have a very large wavesample, the loop markers may be so close together that they may appear as a single vertical line. If you are unsure about where the loop markers are on the screen you can look at the loop information contained in the lower right portion of the screen. The page number of the loop start is shown there along with the page number and the sample number of the loop end. You should look for the loop markers in the WAVEFORM DISPLAY screen at the pages indicated by these numbers. If you find that the loop markers appear as a single line on the display, you may want to zoom in to see them better. The best way of doing this is to move the Sample Cursor to a page that is near the loop (for example you could place it right on the loop start page) using the "P" function. After you have moved the Sample Cursor there, you could zoom in to see the loop in more detail by pressing the "I" key while holding down the CONTROL key.

3. Once you have found the current loop you will want to set up your own loop setting. To do this you should determine where you want the loop to start and where you want it to end. This may require you to look at the whole wavesample in various magnifications. When you have looked it over and decided where you want to place the loop, you must move the Sample Cursor until it is at the point where you want a loop setting (start or end) to be. Then press the "L" key. OASIS will prompt you as follows:

Set loop. Hit S for Start, E for End:

You should respond to this with an "S" or "E" depending on whether you want to set the loop start or loop end. When you do this, the system will ask you once more if you really want to make this change. For example if you selected "E" for end, OASIS would prompt with:

Set loop end at cursor. Ok (Y/N)?

If you respond with a "Y", OASIS will make the change. There may be a slight pause while the Mirage is updated. During this pause you may see a message at the bottom of the screen that says:

Updating Mirage..

And if you look over at your Mirage display you will notice that it is changing. When the change is complete (it takes a couple of seconds sometimes), the bottom line of the screen will be cleared and the loop markers on the OASIS screen will change to reflect the loop setting.

4. The loop setting that you select will be sent to the Mirage immediately so you can hear the results of the change by pressing keys on the Mirage (or if you have a MultiSampler, by going to the Keyboard Page of OASIS and using the features described in section 4.9).

You will notice that step 3 assumed that you knew how to move around on the WAVEFORM DISPLAY Page. If you don't, refer to section 3.3.2 or section 5.1.

#### 4.3 PERFORMING MASOS FUNCTIONS ON A WAVESAMPLE

To perform MASOS functions on a wavesample you must do two things:

1. Set up the MASOS parameters for whatever it is that you want to do. You can do this by flipping to the MASOS Page and changing the parameters. You can do this by pressing the "M" key from the OASIS MAIN MENU Page. You can change the parameters there using the information contained in section 5.6.

2. Execute the MASOS function from the MASOS page by selecting the function you want from the list of functions shown near the bottom of the MASOS Page. Each of the functions is activated by pressing a single key. When you press that key, OASIS will not go through with the operation immediately but will display a message at the bottom of the screen which tells you exactly what function is going to be performed by OASIS. If you respond with a "Y" to the Yes/No prompt then the function will be performed. Again, section 5.6 contains details on the operation of the MASOS Page.
3. You should understand that when you execute a MASOS function it causes the sample data contained in the Mirage to be changed but does not affect the copy of that data contained in OASIS memory. Therefore, if you want to see what effect the MASOS operation had on the sample data you must load the sample data across from the Mirage again. To do this, switch to the WAVEFORM DISPLAY Page and use the "H" function there to clear the OASIS wavesamples buffer, then tell OASIS to load the wavesample that you modified. If you don't know how to load wavesamples from the Mirage to OASIS see section 4.2.

#### 4.4 ADJUSTING MIRAGE MIDI SETTINGS

Control of the Mirage MIDI mode is done from the Configuration Parameter Page. To reach this page, press "C" from the OASIS MAIN MENU Page. You will see a section labeled "MIDI". The three switches there can be controlled by selecting the switch's parameter number and then specifying the new value.

#### 4.5 ADJUSTING RELATIVE FILTER AND VOLUMES ACROSS THE KEYBOARD

If you have several wavesamples that are used for one sound (that is, you are using "multisampling" to create your samples) you will eventually be faced with the problem of balancing the filter settings and volumes for each of your wavesamples so that the overall sound's brightness and loudness is even all across the keyboard. To do this you will need to flip to the Wavesample Parameter Page. You can reach the Wavesample Parameter Page by pressing "W" from the OASIS MAIN MENU Page. When you reach this page you will notice three parameters at the bottom of the screen (parameters [69], [70] and [71]). These parameters control the relative brightness and loudness of the wavesample whose name is displayed at the top of the screen in the "CURRENT WAVESAMPLE: " page.

To adjust the wavesamples you will have to play the wavesamples on your keyboard and determine which of them is too bright or too loud. When you have found one that needs adjustment, flip to the Wavesample Parameter Page and select the wavesample that needs adjustment by pressing the "W" key. The Wavesample Parameter Page will prompt for the new wavesample's number. It will then ask you if you want to look at the UPPER or LOWER keyboard. When you have made that selection the page will then display the values of all the parameters for that wavesample. You may then change the values of parameters 69 through 71. As you change them you should play keys on the Mirage and note the effect of the change.

#### 4.6 GETTING READY TO SAMPLE

When you wish to sample you can prepare the Mirage by switching to the Sampling Parameter Page. There, the Mirage parameters which control the sampling process can be controlled. The Sampling Parameters Page can be reached by pressing the "S" key from the OASIS MAIN MENU Page.

Six parameters of the Mirage can be controlled from this page. To select a parameter, simply enter its number in response to the prompt at the bottom of the page (Note that a parameter's number is contained in square brackets while the parameters value is shown after the colon ":").

In addition to the parameters it is also possible to control which of the Mirage wavesample's will "receive" the sample data that is generated. The "CURRENT WAVESAMPLE:" label at the top of the screen indicates at all times into which wavesample the Mirage is going to store the incoming sample data. To change the wavesample, press the "W" key. OASIS will prompt for a sample number and a keyboard half. After the user responds to the prompts the new wavesample will be selected at the Mirage and the label at the top of the screen will change to reflect the new setting.

#### 4.7 ADJUSTING A PROGRAM'S ENVELOPE

To adjust the envelopes of a program you must switch to the OASIS Envelope Page. This page can be reached from the OASIS MAIN MENU by pressing the "E" key. Note that it is not possible to adjust a wavesample's envelope because the Mirage is simply not laid out that way. Each program covers an entire half of the Mirage keyboard and the adjustments made to that program will affect all wavesamples on that half.

Before you attempt to adjust envelopes, you must understand that each program actually has four very different types of envelopes. The four types break naturally into two groups of two envelopes each as follows:

##### VOLUME ENVELOPES:

- The VOLUME level envelope
- The VOLUME velocity sensitivity envelope

##### FILTER ENVELOPES:

- The FILTER level envelope
- The FILTER velocity sensitivity envelope

The envelope page displays two envelopes at a time; either the two VOLUME envelopes or the the FILTER envelopes. You can always tell which pair of envelopes you are currently shown by looking at the upper left portion of the envelope page. There you will see a field labeled "Envelopes:" which will be followed by either "FILTER" or "VOLUME".

The upper right hand portion of the screen tells which of the programs you are looking at. The current program is shown in the field that has a label "Program:".

The central portion of the Envelope Page shows two graphs of the two envelopes. The darker line is the level envelope while the lighter line is the velocity sensitivity envelope. You can control the envelopes by changing the 5 parameters which control the shape of each envelope. The 5 parameters which control each of the two envelopes are shown in two columns below the envelope graphs. You can change the value of one of these parameters by pressing the key shown next to that parameters name. For example, you would press the "A" key to change the value of the Attack parameter. Since there are always two attack parameters shown on the screen (one in each column) OASIS must provide a means of selecting one column or the other. This is done using the double arrow which appears at the bottom of one of the columns. Press the "T" key to cause this double arrow to "toggle" between the two columns thus selecting one or the other column for modification.

To illustrate how to actually modify an envelope, lets set out a series of steps that will always work. After that we will follow through this series of steps with a particular example. The steps are:

1. Flip to the Envelope Page by pressing "E" while you are on the OASIS MAIN MENU Page.
2. Select the program that you want to deal with. To do this check the "Program: " field which is shown in the upper right portion of the screen. If the program name shown there is not the program that you are interested in, you will have to change it. The procedure for changing the current program is simple:

- a. Press the "C" key. You will see the following prompt at the bottom of the screen:

Enter program number:

- b. You should respond to this prompt with a number from 1 to 4 followed by a RETURN. When you do this you will see another prompt:

Enter 'U' for Upper, 'L' for Lower:

- c. You should respond to this prompt with a 'U' or an 'L' followed by a RETURN. When you do this, the "Program:" field in the upper right corner of the screen will change to reflect the program that you just selected, the envelopes shown will be redrawn so that they show the envelopes for the newly selected program, and the numbers shown in the two columns will also change.

3. Select the FILTER or VOLUME envelopes for editing. First check the "Envelopes: " field to see if the current setting is what you want. If not, press the "F" key. This will cause OASIS to "flip" to the other pair of envelopes and the "Envelopes: " field and the envelopes themselves will change immediately to reflect this.

4. Determine whether you want to change the level envelope or the velocity sensitivity envelope. Press the "T" key to toggle the double arrow between the two columns of numbers. One of the columns is labeled "LEVELS" and the other is labeled "VEL. SENS.". When the double arrow is beneath the column that you want, proceed to the next step.
5. Now that you have narrowed down your selection to one particular envelope you must now select which of the five envelope parameters you want to change. You will notice that there are five labels to the left of the five rows of parameters shown in the display. These labels correspond to the five parameters that control the shape of each envelope. To select one of them, just press the key which corresponds to the first letter of their name. For example, to select the "Release" parameter press the "R" key. When you do this OASIS will prompt for a new value for this parameter. You should respond to the prompt with a number from 0 to 31 followed by a RETURN. When you do this, the value of the parameter as shown in the appropriate column of parameters will change and so will the graphic display of the envelope. OASIS also sends the change to Mirage so you may play a note on that particular half of the keyboard and you will hear the new envelope that you have created.

Now that we've shown a sequence of commands that will perform a general operation, let's apply these steps to a particular example. Let's say that you are at the OASIS MAIN MENU Page and you want to set the Peak of the FILTER level envelope of program Upper 2 to 23. Here are the steps that you would perform:

1. Press the "E" key to get into the Envelope Page.
2. Press the "C" key to change programs. When you see the prompt for the program number respond with a "2" followed by a RETURN. Respond to the upper/lower prompt with a "U" followed by a RETURN. The "Program: " field will change to "UPPER 2".
3. Press the "F" key to flip from FILTER to VOLUME envelopes until the "Envelopes: " field says "FILTER".
4. Press the "T" key until the double arrow is under the column labeled "LEVELS".
5. Press the "P" key to select the Peak parameter. You will see the prompt:

Enter new value for  
Filter Level Peak:

Enter a 23 followed by a RETURN. The value of the Filter Peak parameter will change on the screen and will be updated to the Mirage immediately.

#### 4.8 LAYING OUT MIRAGE MEMORY FOR MULTISAMPLING

To lay out memory for multisampling you should switch to the Allocation Page. You can reach the Allocation Page from the OASIS MAIN MENU by pressing the "A" key. When you layout memory you should decide how much memory you want to allocate to each wavesample and then determine what the hexadecimal numbers are which describe that memory layout. The Allocation Page then allows you to enter those hex numbers in a convenient way.

In addition to easing the entry of these hex numbers that describe your memory layout, OASIS also gives you a graphic display of the memory map. We'll talk about that a bit later.

To enter your memory map, you will simply move the cursor on the the Envelope Page to the memory parameter that you want to change, enter the new value for that parameter (in HEX) and press the RETURN key. OASIS will then transmit the change to the Mirage. The only problem is: how do you move the cursor to the different parameters shown on the screen? Then answer is simple: hold down the CONTROL key while pressing one of the four arrow keys located on the left portion of the keyboard. There are four arrow keys there, one each for up, down, left and right. (Note that pressing the RETURN key performs a "left arrow" function).

You will notice that as you change the parameters shown in the two columns of the Envelope Page that the horizontal bars in the middle of the screen will also change. These bars show how much of memory is occupied by a particular wavesamples. A long bar indicates that a large amount of memory is allocated, while a short bar indicates a small amount of memory. For more detail on the Allocation Page see sections 3.3.6 and 5.5.

#### 4.9 LISTENING TO A WAVESAMPLE (WITHOUT A KEYBOARD)

If you don't want to use the keyboard of the Mirage to play notes as you change the settings of the Mirage (or if you have an Ensoniq MultiSampler) you may want to know how you can play notes on the Mirage without going to the keyboard. The answer is simple: flip to the OASIS "Keyboard Page". you can get to the Keyboard Page by pressing the "K" key from the OASIS MAIN MENU. When you do this you will see alot of information. If all you want to do is play notes then you only need to be concerned with the keyboard at the bottom of the page. To play notes on the Mirage you just need to know three things:

1. Pressing any key on the lower three rows of keys on the 130XE keyboard will cause a note to be played on the Mirage. Then note played will be marked on the screen below the keyboard with a "." mark.
2. To turn off all notes that are playing on the Mirage press the 'space bar' key of the 130XE keyboard.
3. To switch from playing notes on the lower part of the keyboard to playing notes on the upper part of the keyboard press the TAB key while holding down the CONTROL key.

For more information about using the Keyboard Map Page to play notes on he Mirage or the MultiSampler read section 3.3.4 or 5.3.

#### 4.10 ADJUSTING WAVESAMPLE-TO-KEYBOARD MAPPING

To adjust where each wavesample will play on the Mirage keyboard you should switch to the Keyboard Map Page. You can reach the Keyboard Map Page from the OASIS MAIN MENU Page by pressing the "K" key. Once the Keyboard Map Page is displayed all of the Mirage parameters which control where each wavesample of the Mirage is heard on the keyboard. The best way to understand how the Mirage assigns wavesamples to keys on the keyboard is to read the Ensoniq documentation on this subject and then to try and use the functions of the Keyboard Map Page and observe the effect that these functions have on the keyboard map that appears at the bottom of the screen.

It is critical to understand how the keyboard at the bottom of the page shows how wavesamples are played on the keyboard. You will notice that there are several tick marks above the keyboard. These marks divide the keyboard into sections. In each section a single wavesample will be heard, that is, the keys contained in that section will play a particular wavesample. (If the "Osc Mix Switch" is ON then actually two wavesamples will be heard). The two columns which appear in the right portion of the screen contain all of the Mirage parameters which can effect the mapping of wavesamples to keys. These parameters can be easily changed by the user by simply placing the cursor on top of the parameter that you wish to change and entering the new value that you desire followed by a RETURN. The value will be sent to the Mirage immediately and the map displayed on the bottom of the screen will be redrawn so that it reflects the change. Since the Mirage is updated immediately you can play notes on the Mirage (either directly or using the OASIS features described in section 4.9) and verify the change in the keyboard mapping.

#### 4.11 SAVING CHANGES THAT YOU HAVE MADE TO A MIRAGE DISK

As you use the various pages of the Mirage, the changes that you make to Mirage sample data or Mirage parameters are updated to the Mirage immediately. However, if you turn off the Mirage, you will lose all of the changes that you made. To save the information in the Mirage you must save the Mirage samples to a Mirage disk. You should consult the Ensoniq documentation to determine how this is done. A summary of what can be done is shown below. There are essentially four "save" operations that can be performed.

NOTE: in the steps which follow, you will be asked to insert a blank disk into the Mirage disk drive. The information you want to save will be written to this disk. However this disk must be formatted in order for the information to be successfully saved to the disk. You may obtain formatted disks from your local Ensoniq dealer or you may create them from blank disks using a formatting program which is also available from Ensoniq dealers.

1. **SAVE LOWER KEYBOARD HALF.** To do this insert into the Mirage disk drive the disk that you want to use to save the information. Select parameter [11] and press the Start key of the Mirage. The Mirage display will flash "SL". You must select a number from 1 to 3 which corresponds to one of the positions on the disk. After you have done this the display will stop flashing. Press the Start key of the Mirage and the data will be saved to disk.

2. SAVE UPPER KEYBOARD HALF. To do this insert into the Mirage disk drive the disk that you want to use to save the information. Select parameter [12] and press the Start key of the Mirage. The Mirage display will flash "SU". You must select a number from 1 to 3 which corresponds to one of the positions on the disk. After you have done this the display will stop flashing. Press the Start key of the Mirage and the data will be saved to disk.
3. SAVE BOTH KEYBOARD HALVES. To do this insert into the Mirage disk drive the disk that you want to use to save the information. Select parameter [13] and press the Start key of the Mirage. The Mirage display will flash "SA". You must select a number from 1 to 3 which corresponds to one of the positions on the disk. After you have done this the display will stop flashing. Press the Start key of the Mirage and the data will be saved to disk.
4. SAVE CONFIGURATION PARAMETERS. To do this insert into the Mirage disk drive the disk that you want to use to save the information. Select parameter [14] and press the Start key of the Mirage. The Mirage display will flash "SP". You must select a number from 1 to 3 which corresponds to one of the positions on the disk. After you have done this the display will stop flashing. Press the Start key of the Mirage and the data will be saved to disk.

#### 4.12 CHANGING FROM ONE SAMPLE DISK TO ANOTHER

If you have changed data within the Mirage and saved it to a disk and now want to move on to another sample you will have to clear out OASIS memory, load the new data from the Mirage disk that you want to work with and then load the data over to the Mirage so that you can display it and change it.

To do this follow the steps below:

1. Go to the Mirage and insert the disk that contains the sample information that you want to load. Press the LOAD UPPER or LOAD LOWER button on the Mirage and the Mirage display will blink "LU" or "LL". You should then press a number from 1 to 3 which is the number of the sound that you want to load from the disk. Then press the Start key and the Mirage disk drive will load the data from the disk.
2. Now that the data is in the Mirage you must clear out the OASIS memory and start loading the new information into OASIS so that you can see it and modify it. To do this, switch to the OASIS MAIN MENU Page and press the "D" key to get to the IDPLSAY WAVEFORM Page of OASIS. Then press the "H" key which will cause OASIS to clear memory. This will cause OASIS to display the "NO WAVESAMPLE LOADED" Page. (If you see the NO WAVESAMPLE LOADED Page immediately after pressing the "D" key, skip to the next section).

3. When you have reached the "NO WAVESAMPLE LOADED" Page you should respond to the prompts there as described in section 3.3.2.2. This will cause wavesample information to be pulled from the Mirage to OASIS memory. You are now ready to edit the new wavesample and parameter data using the OASIS pages.

## 5. DETAILED REFERENCE INFORMATION

The material contained in this section describes the OASIS pages in a very abbreviated format. Because the format is so abbreviated it is likely to be difficult to understand for a newcomer to OASIS. This section is provided mainly for the following two types of people:

1. People who are new to OASIS but are so used to dealing with computers and computer jargon and who understand the Mirage architecture so well that they can learn how to use the system without being led through its operation by a lengthy tutorial such as that contained in section 3.
2. People who have been using OASIS for a while and need to be able to refer to a short document that contains a brief description of each command rather than a lengthy discussion of the basics which they presumably already know.

This chapter contains a subsection on each of the OASIS Pages. In each subsection you will find a complete description of the page's function but without alot of basic information about how computers, OASIS, or the Mirage works.

### 5.1 THE DISPLAY WAVEFORM PAGE

This page displays the waveforms contained in the Mirage memory. Only one half of Mirage memory can be dealt with at once. Normally this page shows a wavesample display. The first time that you enter it after starting up memory or clearing memory using the "H" command, you will see the "NO WAVESAMPLE LOADED" page. This will prompt for the wavesample that you want loaded first (for example UPPER 4) and load it from the Mirage to OASIS memory. Once you have loaded one wavesample you can see the display of that wavesample.

Each wavesample occupies a particular portion of the Mirage memory as defined by the memory map parameters. If you want to cause other wavesamples to be pulled from the Mirage and stored in OASIS memory you should use the "W" command which will prompt for a new wavesample number. If the wavesample is not loaded, it will load it from the Mirage and then display it on the screen. If the wavesample is already loaded the system will flip to that portion of OASIS memory that contains that wavesample and display it on the screen immediately.

You will notice that in the middle of the wavesample graph there is a vertical line with a cross on top. This is the Sample Cursor. This is like a pointer; it is what you use to move through the sample data in order to perform useful functions. The Sample Cursor can be moved left and right within the current display window using the "<" and ">" keys respectively. It can move left and right by a larger amount by holding the CONTROL key and pressing "<" or ">" respectively. When the Sample Cursor reaches one of the boundaries of the display window it will not move in that direction anymore.

You should take note of the tick marks and labels displayed at the bottom of the wavesample window. These tick marks are in hex. They correspond to the hex memory locations of the sample data that you are looking at. Since the Mirage has 64K of memory, OASIS contains a wavesample buffer that is 64K bytes in size. As a result, the location of wavesample data in OASIS memory corresponds exactly with the location of wavesample data in the Mirage keyboard half from which the wavesample was obtained. So the hex labels on the bottom of the screen give the location of the current wavesample display window in both the Mirage keyboard half and the OASIS buffer; the two "shadow" each other.

As you move the Sample Cursor around using the "<" or ">" keys (holding down the CONTROL key when you want to move fast) you will notice that some of the values displayed in the lower portion of the screen will change. In particular you will notice that the field labeled "Cursor at" will change. This field gives the hex page and sample number in Mirage/OASIS memory of the current position of the Sample Cursor. It is updated every time the Sample Cursor moves.

The keyboard half being dealt with at any time is shown in the lower left hand portion of the screen in a field labeled "Wavesample: ". Each half of the Mirage can contain up to eight wavesamples so this field also shows which wavesample the Sample Cursor currently lies in. As you move the Sample Cursor through OASIS/Mirage memory you may skip into a new wavesample's memory region. When this happens, the sample number displayed in the "Wavesample: " field will change to show in which wavesample's memory the Sample Cursor currently lies. The values of the "Start" and "End" fields reflect the starting and ending page number for the wavesample in which the Sample Cursor lies. So, as the Sample Cursor moves to a different wavesample, these will change also to reflect the memory boundaries of that wavesample.

In the lower right hand portion of the screen you will see a field labeled "Sample Value:" this field always contains the decimal number which corresponds to the sample value at the current Sample Cursor position. This value will vary from -127 to 127. Positive numbers are for samples which are above the horizontal line in the middle of the screen, while negative values correspond to sample values which go below the line. A value of 0 corresponds to a sample which value lies directly on the horizontal center line.

Another field which you should take note of is the the "Loop" field. This contains two subfields; one for the loop start and one for the loop end. These values will change when you move to a new wavesample. They will also change when you change wavesample's loop setting using the "L" command. Also the current loop setting for the wavesample is displayed graphically in the display window. The start and end of the loop are shown with a vertical line which is connected at the top of the screen with a dotted line. Of course if you are looking at a portion of the wavesample that is not contained in the loop then the loop markers will not be shown on the screen.

If you look at the bottom line of the display you will see a field labeled "Pages Shown:". This field shows how many pages of Mirage memory are shown in the current wavesample window. Each page contains 256 bytes. When you are at maximum Oasis magnification, this field will show value of 1. As you zoom out, you will be able to see more and more pages of sample data at once. As a result the value shown here will increase as you zoom out and decrease as you zoom in. It always changes by a factor of two (i.e., it always has a value of 1 or 2 or 4 or 8 or 16 etc.)

To zoom in by one magnification press the "I" key. This will redraw the wavesample window at the next higher magnification and will update the "Pages Shown:" field to reflect this. To zoom out press the "O" key. The window will be redrawn at a lower magnification. IF you want to zoom in to the highest magnification press the "I" key while holding down the CONTROL key. This will zoom you in and the "Pages Shown" field will change to "1" to indicate that you are at the highest magnification.

To zoom out so that the entire wavesample that you are currently looking at is seen, press the "O" key while holding down the CONTROL key. OASIS will pick a magnification which allows the entire current wavesample to be shown on the screen (the magnification will depend on the size of the wavesample in memory).

To cause the wavesample window to advance one screen full of data use the "+" key. To go back one screen full press the "-" key. To go to a particular page press the "P" key and respond to the prompt with a hex page number. If the page number you select is shown on the screen, the Sample Cursor will jump to that page. If it is not, the window will be redrawn so that that page number is at the center of the screen.

You can use the "H" key to switch keyboard halves. You will need to do this when you want to look at the other half of Mirage memory or when you want to look at a different set of wavesamples altogether. When you press the "H" key, the system will prompt you for confirmation and then erase all of the OASIS wavesample memory buffer. It will revert to the NO WAVESAMPLE LOADED Page which will ask you the wavesample that you want. Before you respond to that prompt, you should load new data into the Mirage so it will be pulled over to OASIS instead of the old data.

The "Q" command ("Q" stands for "Query") is a rather obscure feature of OASIS which will pull all of the Mirage parameters over to OASIS. The only time you would ever need to use this command would be if you thought that the Mirage and OASIS had somehow got 'out of sync'; in other words, the communication path over MIDI had become garbled somehow. If you are suspicious of your MIDI hardware for any reason you might press "Q" every once in a while to cause OASIS to 'query' the Mirage for all of its parameters. The command is harmless and only takes a couple of seconds to execute.

One command which is of great interest to someone who is sampling is the Loop command which is activated by pressing the "L" command. This command will cause the loop setting for the current wavesample to be moved to the current position of the Sample Cursor. Since each loop setting has a start and end, the command will prompt to ask you which one you would like moved. When this is done, the "Loop" field displayed in the lower right portion of the screen will be updated as will the loop markers in the display window.

You can control the MASOS memory parameters using three commands. The Mirage and OASIS provide three MASOS memory markers: the Source Start, Source End and Destination Start markers. To set one of these three markers just place the Sample Cursor at the portion in memory where you want the marker to be and press the "S" key to set the "Source Start" marker, the "E" key to set the "Source End" marker or the "D" key to set the "Destination End" marker. The change is sent to the Mirage immediately. After you have set the markers graphically, you can then switch to the MASOS Page and perform MASOS functions.

If you need to change the value of a particular sample you can use the "N" command (for "New sample"). OASIS will prompt you for a new value for the sample on which the Sample Cursor currently lies. As the prompt inidces, you must enter a value from 127 to -127. This value is sent to the Mirage immediately and updated on the screen.

If you need to graphically draw on the wavesample window you should use the "G" key. This places OASIS in a mode where you can draw on the screen by using the arrow keys of the 130XE keyboard. When you press the "G" key; the Sample Cursor will vanish and the arrow keys will cause the current sample position to change. The point at which you are drawing is wherever the Sample Cursor was when you pressed "G". If you forget where you are you can get the Sample Cursor back by pressing the ESC key which will exit you from the graphics mode. When you have found your place, you can re-enter the graphics mode to continue drawing by press "G" again.

## 5.2 THE WAVESAMPLE PARAMETER PAGE

This page allows you to change the parameters associated with each wavesample of the Mirage. There are sixteen wavesamples; eight for the upper half and eight for the lower half. To use this page you must select the wavesample that you want to deal with. You do this by pressing the "W" key and responding to the prompts. The current wavesample that you are dealing with is displayed in the upper portion of the page in a field labeled "CURRENT WAVESAMPLE:".

Once the "CURRENT WAVESAMPLE:" field contained the wavesample that you are interested in, the rest of the page will display the values of the wavesample parameters associated with that wavesample. To change this value all you need to do is enter the parameter's number followed by a RETURN. The parameter's number is shown on the page in square brackets. For example, the "Relative Magnitude" parameter is parameter [69].

When you select a parameter, by entering its number, OASIS will prompt you for a new value for that parameter. If the value that you provide is valid it will send it to the Mirage immediately and update the screen. If it is not valid, it will give you an error message that tells you what the valid range of that parameter is.

## 5.3 THE KEYBOARD MAP PAGE

This page allows you to perform two main functions:

1. To change the parameters that control the the mapping of wavesamples to the Mirage keyboard.
2. To play notes on the Mirage without having to go to the Mirage keyboard (this is a nice feature for owners of the Ensoniq MultiSampler who don't have a keyboard!)

All of the Mirage parameters which control the keyboard mapping are displayed in the two columns of numbers shown in the right portion of the display. There are shown the values of all eight "Top Key" parameters of the Mirage for each keyboard half as well as the values of the "Osc Mix Switch" the "Initial Wavesample" parameter and the "Current Program" tht is selected.

To edit the values of all of these parameters simply place the text cursor on the field that you want to edit, enter the new value and press RETURN. The new value will be sent to the Mirage, updated on the screen and the mapping shown on the keyboard will be updated.

To play notes on the Mirage from your 130XE computer press any key on the bottom three rows of the 130 keyboard. You will see a small tick mark appear below each of the keys which you have played and the corresponding note will be sounded on th Mirage. To send a MIDI "all notes off" command press the space bar. Since there are 60 keys on the Mirage and only about 30 on the bottom three rows of the 130XE keyboard you can only play half of the notes on the Mirage at once. When you first enter the page only notes on the lower part of the keyboard will be played by pressing key on the 130XE keyboard. To flip to the upper half of the keyboard press the TAB key while holding down the CONTROL key. Pressing the TAB and CONTROL keys at the same time will toggle the keyboard half from upper to lower and vice versa.

#### 5.4 THE ENVELOPE PAGE

The Envelope Page is used to control the many envelopes of the Mirage. There are four envelopes per Mirage program. To select a program from the Envelope Page, press the "C" key and respond to the prompts. The current program is displayed in the upper right portion of the screen.

Because each program has four envelopes, and OASIS would be hard pressed to display them all on the screen at once. Instead OASIS displays them on the screen two at a time: the FILTER envelopes together an the VOLUME envelopes together. The field in the upper left portion of the screen tells which pair of envelopes are currently displayed. You can flip from VOLUME to FILTER envelopes and back again by pressing the "F" key.

Each pair of envelopes contains a level envelope and a velocity sensitivity envelope. The level envelope is shown with a darker line and the five parameters which control its shape are listed in the left column of numbers which appears in the center of the screen. The velocity sensitivity envelope is displayed with a thinner line and its five parameters are shown in the right column.

You may only change one of the two envelope's parameters at a time. In other words you can only change parameters shown in one of the columns at a time. The current column is selected by moving the double arrow which is always shown at the bottom of one of the column by pressing the "T" key to toggle between columns.

Once you have selected a program with the "C" (change) key, a pair of envelopes with the "F" (flip) key and one of those envelopes (columns) with the "T" (toggle) key, you are ready to change one of the five parameters that control the selected envelope's shape. To do this just press the key tht corresponds to the first letter of that parameter's name (e.g., press "P" to change the Peak parameter).

## 5.5 THE MEMORY ALLOCATION PAGE

The Memory Allocation Page displays the current layout of memory for the UPPER or LOWER keyboard half. To switch from UPPER to LOWER press the "C" key. The current keyboard half is displayed at the top of the screen.

The page displays the current layout of a Mirage memory half in two ways: by showing all of the wavesample START and END parameter values in two columns and by drawing a horizontal bar underneath a memory scale for each wavesample. The parameter values shown in the two columns are changed by moving the cursor to the value that is to be changed, entering the new value for the parameter followed by a RETURN. There is a slight pause while OASIS transmits the parameter change to the Mirage. When that is complete, the horizontal bar shown in the center of the screen will be redrawn. The cursor is moved by holding down the CONTROL key and pressing one of the four arrow keys of the 130XE keyboard which are in all near the RETURN key.

There is one horizontal bar in the center of the screen for each of the eight wavesamples contained in a keyboard half. There is a hex scale at the top and bottom of the portion of the region that contains the horizontal bars. This scale is abbreviated and refers to page numbers in the current memory half. For example the "8" which appears in the scale marks the point at which the "80" page of the memory half starts. For example, if the START parameter for a wavesample was 60 and the END parameter was 80 then the waveample's memory region would vbe from page 60 to page 80 and there would be a horizontal bar next to that wavesample's page which extended from the tick mark labeled "6" to the tick mark labeled "8".

## 5.6 THE MASOS UTILITIES PAGE

The MASOS control page allows you to control the Mirage parameters which control the MASOS operation and then permits you to execute a MASOS oprtation by selecting one from the menu shown at the bottom of the page. To change the value of one of the parameters shown on the MASOS page you should enter the number of the parameter (which is the value shown in square brackets) followed by the RETURN key. OASIS will prompt you for a new value for the parameter. You should enter the value that you want followed by RETURN and it will be sent to the Mirage.

Once the you have set up the MASOS parameters you can execute MASOS functions by pressing the key which corresponds to the first letter of that function. For example to perform a MASOS Invert press the "I" key. It is important to note that the keyboard half that the function will be performed on is the keyboard half that is selected on the Wavesformn Display Page. If there is a destination value required by one of the MASOS commands (such as ADD, and COPY) the keyboard half used will depend on the value of the "Bank" parameter [94]. A value of 1 refers to the UPPER keyboard half while a value of 0 refers to the lower keyboard half.

## 5.7 THE CONFIGURATION PARAMETER PAGE

The Configuration Parameter Page allows the values of the general Mirage configuration parameters to be changed as well as those that control its MIDI configuration. The parameters shown are divided into these two categories: GENERAL and MIDI.

To change the value of a configuration parameter simply enter the parameter's number. The parameter number is displayed by OASIS on the configuration page in square brackets (for example, the Pitch Bend Range parameter is shown with it's parameter number as [22]).

After you enter the parameter number followed by a RETURN OASIS will prompt you for a new value of the parameter. You should enter the new value for the parameter followed by a RETURN. If the value that you specified is valid for that parameter the change will be sent to the Mirage. If the value you specify is invalid you will get an error message which will inform you of this and which will also remind you of what the correct value for that parameter is.

## 5.8 THE PROGRAM PARAMETER PAGE

The Program Parameter Page allows the values of the parameters of a particular program to be modified. The program whose parameters are currently displayed is shown in the upper portion of the screen in the field labeled "CURRENT PROGRAM: ".

To change the program press the "P" key. The system will prompt you for a program number. You should respond to the prompt with a number from 1 to 4 followed by RETURN. OASIS will then ask you if you want an UPPER program or a LOWER program. You should respond to this prompt with a "U" or an "L" as appropriate followed by a RETURN. The system will switch to that program. The program name shown in the "CURRENT PROGRAM:" field will change to the one you selected and the values of all of the parameters on the screen will be redrawn to reflect the settings for that program. To change the value of one of the program parameters simply enter the parameter's number. The parameter number is displayed by OASIS on the screen in square brackets (for example, the Initial Wavesample parameter is shown with it's parameter number as [27]).

After you enter the parameter number followed by a RETURN OASIS will prompt you for a new value of the parameter. You should enter the new value for the parameter followed by a RETURN. If the value that you specified is valid for that parameter the change will be sent to the Mirage. If the value you specify is invalid you will get an error message which will inform you of this and which will also remind you of what the correct value for that parameter is.

## 5.9 THE SAMPLING PARAMETER PAGE

The Sampling Parameter Page allows the values of the parameters which control the Mirage sampling input to be modified. It also allows the user to select, from OASIS, the wavesample into which the next sample will be stored. It does not permit the user to actually initiate sampling from OASIS. In order to do this the user must go to the Mirage and activate the sampling input through the Mirage keypad.

The wavesample into which the next sample will be placed is shown in the the upper portion of the screen in a field labeled "CURRENT WAVESAMPLE:". To change the wavesample press the "W" key. The system will prompt you for a wavesample number. You should respond to the prompt with a number from 1 to 8 followed by RETURN. OASIS will then ask you if you want a an UPPER program or a LOWER wavesample. You should respond to this prompt with a "U" or an "L" as appropriate followed by a RETURN. The system will switch to that wavesample and the wavesample name shown in the "CURRENT WAVESAMPLE :" field will change to the one you selected.

To change the value of one of the program parameters simply enter the parameter's number. The parameter number is displayed by OASIS on the screen in square brackets (for example, the Sample Time parameter is shown with it's parameter number as [73]).

After you enter the parameter number followed by a RETURN OASIS will prompt you for a new value of the parameter. You should enter the new value for the parameter followed by a RETURN. If the value that you specified is valid for that parameter the change will be sent to the Mirage. If the value you specify is invalid you will get an error message which will inform you of this and which will also remind you of what the correct value for that parameter is.

## 6. QUICK REFERENCE GUIDE

### WAVEFORM PAGE

I	Zoom in 1 level	+	Advance one "screen-full"
O	Zoom out 1 level	-	Go back one "screen-full"
CTL+I	Zoom in to max	Q	Query Mirage
CTL+O	Zoom out to max	S	Set MASOS Source Start
W	Select wavesample	E	Set MASOS Source End
H	Change keyboard halves	D	Set MASOS Destination
P	Move to page	N	Set new sample values
L	Set loop point	G	Turn on graphics

### WAVESAMPLE PARAMETER PAGE

W Change wavesamples  
<num> Select parameter

### ENVELOPE PAGE

A Change Attack  
P Change Peak  
D Change Decay  
S Change Sustain  
R Change Release  
C Change current program  
F Flip FILTER/VOLUME  
T Toggle columns

### MASOS PAGE

A Do MASOS Add  
C Do MASOS Copy  
I Do MASOS Invert  
P Do MASOS Replicate  
R Do MASOS Reverse  
S Do MASOS Scale  
<num> Select MASOS par.

### SAMPLING PARAMETER PAGE

W Change current wavesample  
<num> Select par.

### KEYBOARD MAP PAGE

CTL+ Move cursor up  
CTL+ Move cursor down  
CTL+ Move cursor left  
CTL+ Move cursor right  
RETURN Move cursor right  
<num> Change TOP KEY value

### MEMORY ALLOCATION PAGE

CTL+ Move cursor up  
CTL+ Move cursor down  
CTL+ Move cursor left  
CTL+ Move cursor right  
RETURN Move cursor right  
<num> Change memory par. value

### CONFIGURATION PARAMETER PAGE

<num> Select par.

### PROGRAM PARAMETER PAGE

P Change current program  
<num> Select par.

