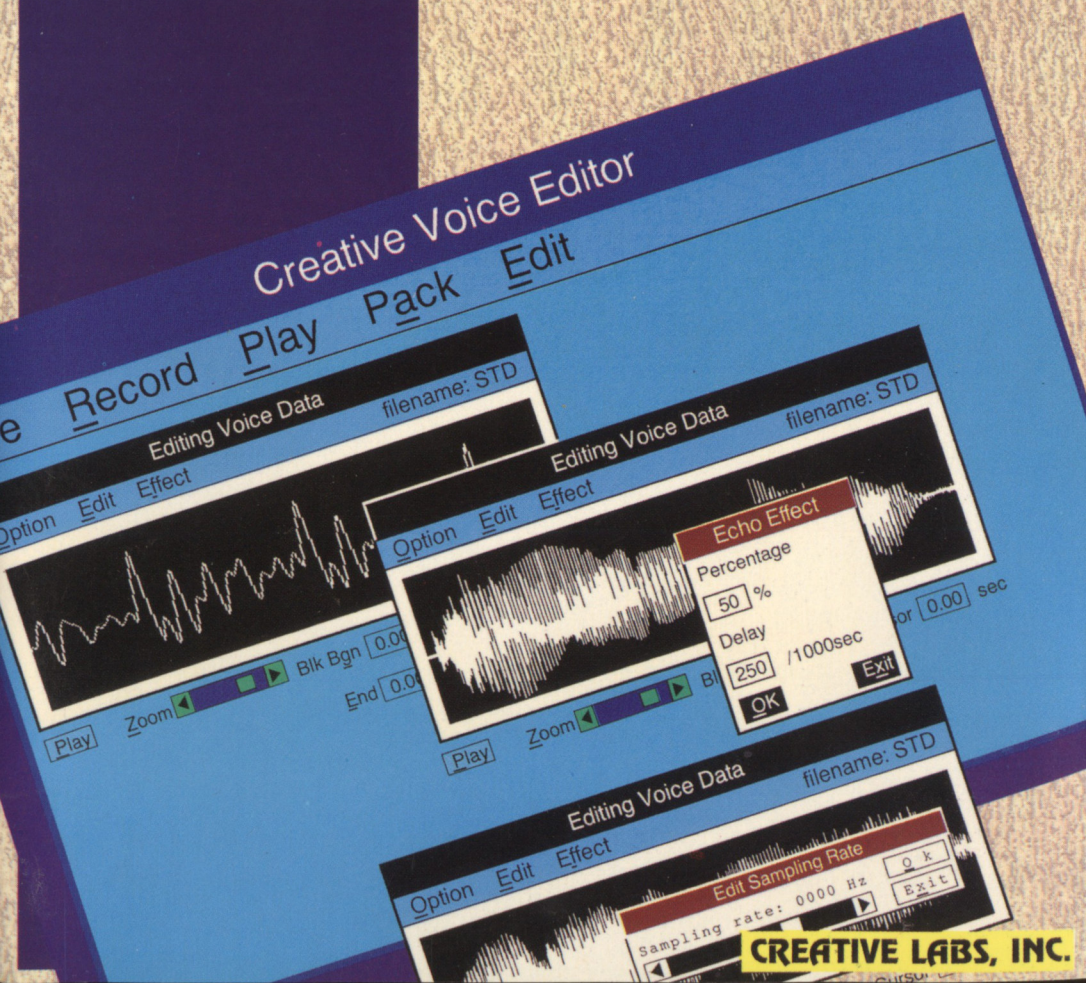# SOUND BLASTER

VOICE EDITOR

The Voice Editor is a powerful and easy-to-use voice data editor for the SOUND BLASTER. It displays the voice data in EGA/VGA graphics and allows you to visually manipulate in many creative ways.

Creative Voice Editor

Record Play Pack Edit

Editing Voice Data   filename: STD

Option Edit Effect

Play Zoom ◄ ■ ► Blk Bgn 0.00

Editing Voice Data   filename: STD

Option Edit Effect

Echo Effect

Percentage

50 %

Delay

250 /1000sec

OK   Exit

End 0.0   or 0.00 sec

Play Zoom ◄ ■ ►

Editing Voice Data   filename: STD

Option Edit Effect

Edit Sampling Rate   O k

Exit

sampling rate: 0000 Hz ►

◄

CREATIVE LABS, INC.

SOUND
BLASTER
VOICE EDITOR

SOUND BLASTER

VOICE EDITOR

USER'S MANUAL

C O N T E N T S

C O N T E N T S

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IMPORTANT NOTE

Before attempting to install Voice Editor, users must have their Sound Blaster card properly installed in their PC's. New users of Sound Blaster are advised to refer to the installation notes in the Sound Blaster User Manual for proper installation of the Sound Blaster. All users must have DOS 3.00 or later in order to run Voice Editor.

The Voice Editor software is designed to be compatible to EGA and VGA.

Some simple conventions are used in this manual:
1. Text to be keyed in are printed in *italic*.
2. single keys are denoted within square brackets; [ ]
3. Available menu options are denoted within double quotes; " "

1. INSTALLATION

Voice editor is a program that enables you to record, play and edit voice data with its waveform on the computer screen. The program allows you to create a series of voice files that can be used in other programs in its minimum size. This program can even allow you to create amplified voice with echo or reverb.

1.1 System Requirements
a. An IBM PC/XT/AT with 640 KB of memory.
b. Minimum one drive, preferably with hard disk.
c. A EGA or VGA color monitor.
d. A Microsoft compatible mouse.
e. Sound Blaster card

1.2 Installing Voice Editor on a harddisk

If you have a hard disk, you can install Voics Editor in your hard disk by executing the hard disk installation program, INST-HD.EXE found in the disk containing Voice Editor.

To execute INST-HD.EXE, you must specify the drive name of you hard disk. For example:

INST-HD C:

INST-HD.EXE will install the Voice Editor software under the directory \SB. Serveral sub-directories are automatically created under this directory.

Note: Before executing, you must enter this command:

Set Sound Enviroment

SET SOUND= C:\SB
(if the Voice Editor software is installed in C:)

or

SET SOUND= D:\SB
(if the Voice Editor software is installed in D:)

(see "2.5 Set Sound Environment" of Sound Blaster User Manual for details)

Installing Sound Driver (INST-DRV)

Format:

INST-DRV   [dir path]

To install driver in others directory, the directory name must be supplied: For example:

>INST-DRV   \SB\DRV

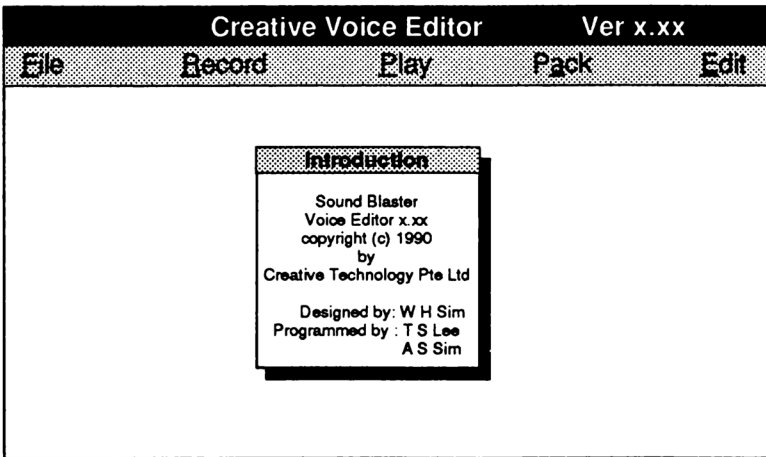(see "2.4 Installing Sound Drivers" of Sound Blaster User Reference Manual for details)

2 USING VOICE EDITOR

After the CT-VOICE.DRV has been installed. Type,

>*VEDIT*   [ENTER]

Mouse   : You will see the Creative Voice Editor Creative copyright statement. [Click] the mouse anywhere on the screen and this statement will disappear.

Keyboard : Press any key this statement will diappear.

```
┌──────────────────────────────────────────────────┐
│           Creative Voice Editor       Ver x.xx     │
├──────────────────────────────────────────────────┤
│   File        Record        Play      Pack      Edit│
├──────────────────────────────────────────────────┤
│                                                    │
│                  ┌──────────────────┐              │
│                  │   Introduction   │              │
│                  │                  │              │
│                  │   Sound Blaster  │              │
│                  │  Voice Editor x.xx│             │
│                  │  copyright (c) 1990│            │
│                  │       by         │              │
│                  │ Creative Technology Pte Ltd│     │
│                  │                  │              │
│                  │ Designed by: W H Sim│          │
│                  │ Programmed by : T S Lee│        │
│                  │            A S Sim│            │
│                  └──────────────────┘              │
│                                                    │
└──────────────────────────────────────────────────┘
```

When you first enter VEDIT, you can select to use the memory or the disk as a workspace for voice recording and play back.

There are two alternative ways to use this program. You can either use the mouse or keyboard to control.

2.1 If you are using a mouse

Some of the mouse has two or three buttons. For Voice Editor you require only one button, the left button. To select an item, use [click] or [double clicks].

2.2   If you are using keyboard

Notice the underlined character? To activate the necessary function, all you need to do is press and hold down the [ALT] Key and then press the character highlighted/underlined. For examples,
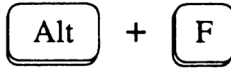
$$\boxed{\text{Alt}} \; + \; \boxed{\text{F}}$$

Hold down [ALT] + [F] for file for the pull-down menu. When the pull-down menu appears, type the character which is underlined or use the up/down keys to move the highlighted bar to the desired option. Choose it by pressing [Enter].

Underlined Character

File
Load
Save
Save as
Write

Introduction
Exit
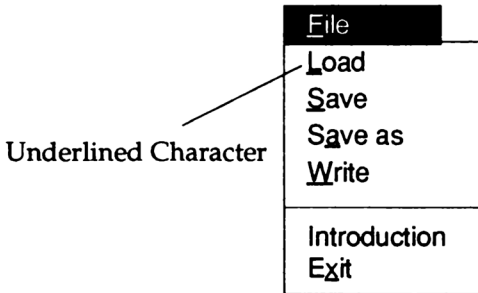
3.   TRAVERSING THE FEATURES OF VEDIT

3.1 Select and deselect blocks in the "Block Information" window

If you are using a mouse

1. Move the mouse cursor to the starting block. The "Cursor" window will show the current block number which the mouse cursor is pointing to.

2. Press and hold the mouse botton. Drag it to the ending block. While dragging the mouse, the "Blk Bgn" and "Blk End" will show the beginning and ending block number. The selected blocks will be framed in a double line box.

3. While dragging, move the mouse cursor out of the window from the left side of the window to select from the current block to the very beginning of the file.

4. While dragging, move the mouse cursor out of the window from the right side of the window to select from the current block to the end of the file.

5. Wile dragging, move the mouse cursor to the top or bottom edges of the window the block information shown will be scroll up or down if there is more blocks. Release the mouse button when the ending block is encountered.

6. A new group of selected blocks can be chosen by repeating step 1 to 5. Move the mouse into the double line box and click to do unselecting.

7. Click the mouse at the "Blk Bgn" or "Blk End" window to edit the beginning or ending block number.

If you are using keyboard

1. Move the highlighted bar using the up and down arrow keys to the beginning block and hit [Ctrl] + [B] for marking.

2. Move the highlighted bar to the ending block and hit [Ctrl] + [B] for marking.

3. Hit [Ctrl] + [R] to release the selected blocks.

3.2 Select and deselect a block in the "Editing Voice Data" window

If you are using a mouse

1. Move the mouse cursor in the window showing the waveform to locate the beginning position. The "Cursor" window will show the current position in unit of second.

2. Press the mouse botton and hold it. Drag it along the waveform window to do marking. A single line box will appear to show the marked area. While dragging the mouse, the "Blk Bgn" and "Blk End" will show the beginning and ending block location in unit of second.

3. While dragging, move the mouse cursor out of the window from the top to mark from the current line cursor to the beginning of block.

4. While dragging, move the mouse cursor out of the window from the bottom to mark from the current line cursor to the end of block.

5. Release the mouse botton when the ending mark position is found. The selected area will be highlighted in reversed color.

6. New marked area can be selected by repeating step 1 to 5. Click the mouse at any position of the waveform window will deselect the mark area and position the line cursor.

7. Click the mouse at the "Blk Bgn" or "Blk End" window to edit the beginning or ending position of the mark area

If you are using keyboard

1. Hold down the [Tab] and [Shift] simultaneously followed by the [Tab] key to move the line cursor to the beginning position and press [Ctrl] + [B] for marking. A smaller step can be made by using the [<] or [>] keys.

2. Move the line cursor to the ending position and hold down [Ctrl] + [B] for marking.

3. Hold down [Ctrl] + [R] to release the selected area.

4. Press [B] or [E] key to edit the beginning or ending marked position.

4   GETTING STARTED

4.1   Load

Mouse   : Point to the word "File" and [click]. When the pull-down
              menu appears, select "Load". The "Load" dialog box appears.
              Locate a sample voice file and select it.

Keyboard : Hold down [ALT] + [F] for the pull-down menu. Select an
              option by using the up/down arrow keys. Move the highlighted
              bar to "Load" and choose it by pressing [Enter].

4.2   Play

Mouse   : Point to the word "Play" and [click]. When the pull-down
              menu appears, select "From Memory".

Keyboard : Hold down [ALT] + [P] for the pull-down menu. Select an
              option by using the up/down arrow keys. Move the highlighted
              bar to "From Memory" and choose it by pressing [Enter].

              It will play back the voice you have just loaded from disk.

4.3   Insert

Mouse   : Point to the word "Edit" and [click]. When a pull-down menu
              appears, select "Insert". The "Insert" dialog box appears.

Keyboard : Hold down [ALT + E] for the pull-down menu. Select an
              option by using the up/down arrow keys. Move the highlighted
              bar to "Insert" choose it by pressing [Enter].

              Four functions are offered here: Silence, Marker, ASCII and
              Repeat.

4.4   Delete

Mouse   : Point to the word "Edit" and [click]. When a pull-down menu appears, select "Delete". The "Delete" dialog box appears.

Keyboard : Hold down [ALT + E] for the pull-down menu. Select an option by using the up/down arrow keys. Move the highlighted bar to "Delete" and choose it by pressing [Enter].

This function allows you to delete the current highlighted marked block or all the marked blocks.

4.5   Modify

Mouse   : Point to the word "Edit" and [click]. When a pull-down menu appears, select "Modify". The "Modify" dialog box appears.

Keyboard : Hold down [ALT] + [E] for the pull-down menu. Select an option by using the up/down arrow keys. Move the highlighted bar to "Modify" and choose it by pressing [Enter].

This function allows you to do a modification to the voice data and sampling rate.

5 FILING OPTIONS

```
 File
 Load
 Save
 Save as
 Write

 Introduction
 Exit
```

5.1 Load

```
                       Load
   Path D:\SB\VE
   Filename *.VOC

   Files                 Dir/Drive

   BBCNEWS               ..
   LL                    [-A-]
   STD                   [-B-]
   TEMP                  [-C-]
                         [-D-]

        OK                   Exit
```
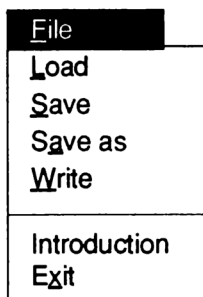
Mouse   : Point to the word "File" and [click]. When the pull-down menu appears, select "Load". A "Load" dialog box appears.

You may select other sub-directories listed in the Dir/Drive list box by using the mouse pointing to the directory name of the sub-directory and [click] it. You may also move to a higher level directory by clicking the ".." file.

Keyboard : Hold down [ALT + F] for the pull-down menu. Select an option by using the up/down arrow keys. Move the highlighted bar to "Load" and choose it by pressing [Enter].

Move the cursor to the filename of the sub-directory and hit [Enter]. You may also move to a higher directory level bt selecting the ".. " file.

This function loads a voice file from the disk. A window list box shows all the ".VOC" files in the current directory. You may use the mouse point to the desired file and [double click] to select it for loading.

All voice file are saved in the Creative File Format. If you have a raw voice data file which you want to compress, it will automatically add in a header before loading.

After a voice file is loaded, you may use "Play, Pack or Modify" to play, pack or modify it.

```
╔═══════════════════════════════════╗
║            Record                 ║
╟───────────────────────────────────╢
║   Current file not saved.         ║
║   Continue WITHOUT saving ?       ║
║                                   ║
║    ▐ Yes ▌        ▐ No ▌          ║
╚═══════════════════════════════════╝
```
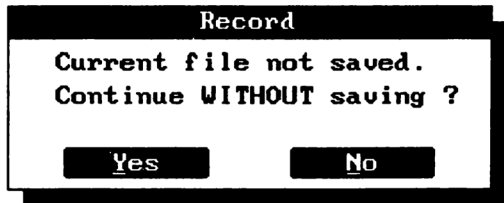
If you attempt to load another file without saving the previous data in the memory, Vedit will prompt you to carry on. Choosing "Yes" will cause it to load into a new file and overwrite the previous memory contents.
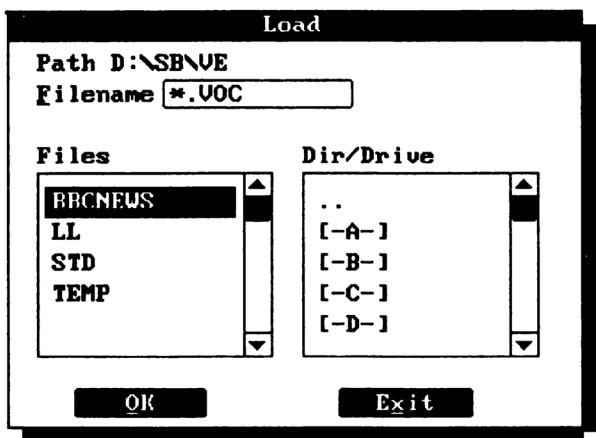
5.2   Save

Mouse   : Point to the word "File" and click. When a pull-down menu appears, click "Save".

Keyboard : Hold down the [Alt] + [F] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Save" and choose it.

This function saves the entire recorded or packed file in the memory onto the hard disk or a floppy disk. The fixed extension for all voice file is ".VOC".

It will use back the orginal file name without further query.

```
          Record
  File already exist
      OVERWRITE ?

    Yes              No
```

Choosing a filename that is already exist will cause VEDIT o prompt you to contiune. If you choose "Yes" the file will be overwrite with the newly recorded data.

5.3   Save as

```
              Save as
  Path D:\SB\VE
  Filename [*.VOC           ]

  Files               Dir/Drive

  BBCNEWS  ▲          ..        ▲
  LL                  [-A-]
  STD                 [-B-]
  TEMP                [-C-]
                      [-D-]
           ▼                   ▼

       OK                  Exit
```

Mouse   : Point to the word "File" and [click]. When a pull-down menu
            appears, [click] "Save as". A "Save as" dialog box appears.

Keyboard : Hold down [ALT] + [F] for the pull-down menu. Select an
            option by using the up/down arrow keys. For "Save" and
            "Save as" move the highlighted bar to either one of them, and
            choose it by pressing [enter].

This function is similar to "Save". However, it allows you to change the filename that you are using. Just select at the "Filename" and enter the newname you will be using.

5.4 Write

```
┌─────────────────────────────────────┐
│            Target File               │
│ Path D:\SB\VE                        │
│ Filename [*.VOC          ]           │
│                                      │
│ Files              Dir/Drive         │
│ ┌──────────────┐▲  ┌──────────────┐▲ │
│ │ BBCNEWS      │   │ ..           │  │
│ │ LL           │   │ [-A-]        │  │
│ │ STD          │   │ [-B-]        │  │
│ │ TEMP         │   │ [-C-]        │  │
│ │              │   │ [-D-]        │  │
│ └──────────────┘▼  └──────────────┘▼ │
│      ■ OK ■            ■ Exit ■       │
└─────────────────────────────────────┘
```

Mouse : Point to the word "File" and [click]. When a pull-down menu appears, select "Write". A "Write" dialog box appears.

Keyboard : Hold down the [ALT + F] for the pull-down menu. Use the up/down keys to move the hightlighted bar to the option "Write" and choose it by pressing [Enter].
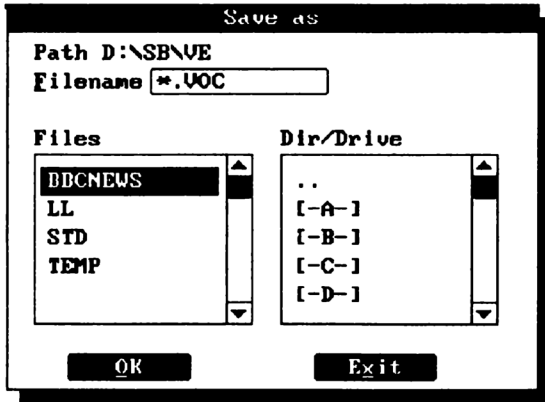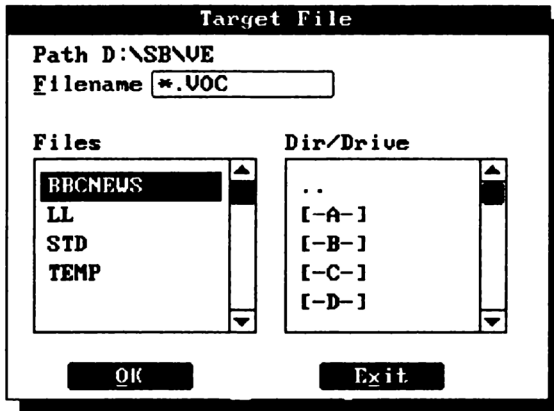
This function allows you to save and write the selected blocks to another file name.

You are required to enter a new name for VEDIT to save the selected blocks to.

5.5 Introduction

```
┌─────────────────────────┐
│      Introduction       │
│                         │
│     Sound Blaster       │
│    Voice Editor x.xx     │
│    copyright (c) 1990    │
│           by            │
│ Creative Technology Pte Ltd │
│                         │
│  Designed by: W H Sim   │
│ Programmed by : T S Lee │
│               A S Sim   │
└─────────────────────────┘
```
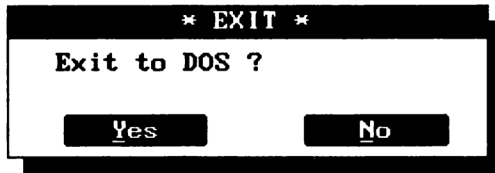
This option here will show you the introduction message.

Mouse   : Point to the word "File" and [click]. When a pull-down menu
             appears, select "Introduction". A "Introduction" message
             box appears.

Keyboard : Hold down the [ALT + F] for the pull-down menu. Use the
             up/down keys to move the hightlighted bar to the option
             "Introduction" choose it by pressing [Enter].

5.6   Exit

```
 ╔══════════════════════════════╗
 ║         * EXIT *             ║
 ║  Exit to DOS ?               ║
 ║                              ║
 ║   ▐ Yes ▌      ▐ No ▌        ║
 ╚══════════════════════════════╝
```

This function allows you to exit VEDIT and return back to DOS. It will
further confirm quitting before exiting to DOS.

Mouse   : Point to the word "File" and [click]. When a pull-down menu
             appears, select "Exit". A "Exit" dialog box appears. [Click]
             "Yes" to exit or "No" to continue the program.

Keyboard : Hold down the [ALT + F] for the pull-down menu. Use the
             up/down keys to move the hightlighted bar to the option
             "Exit" and choose it by pressing [Enter]. Select "Yes" to exit
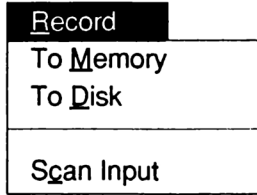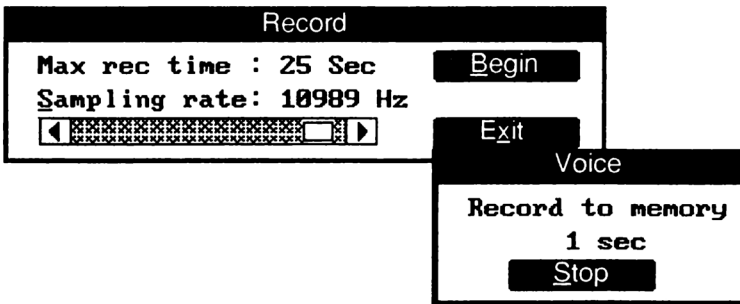   and return back to DOS or "No" to continue the program.

6   RECORDING A VOICE FILE

Record
To Memory
To Disk
Scan Input

This function allows you to record a voice from the microphone input. You must plug a microphone into the microphone jack on the back of the Sound Blaster Card.

6.1   To Memory

```
         Record
Max rec time : 25 Sec      Begin
Sampling rate: 10989 Hz
◄ ▒▒▒▒▒▒▒▒▒▒▒▒▒▒□▒ ►         Exit
                              Voice
                        Record to memory
                              1 sec
                              Stop
```

Mouse   : Point to the word "Record" and [click]. When a pull-down menu appears, select "To Memory". A "Record" dialog box appears. [Click] "Begin" to start and "Stop" to stop recording.

Keyboard : Hold down the [ALT] +[R] for the pull-down menu. Use the up/down arrow keys move the highlighted bar to option "To Memory" and choose it by pressing [Enter]. Press [B] to start and [S] to stop recording.

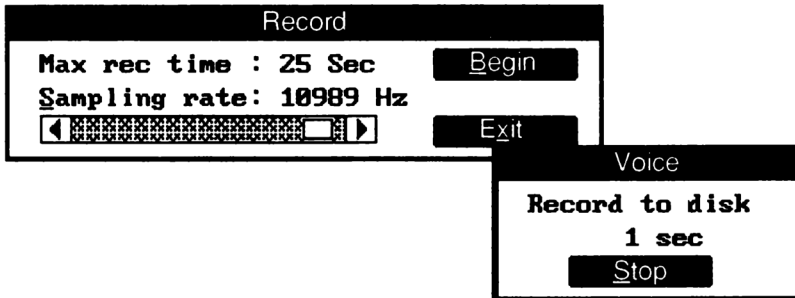The "Record" dialog box allows you to change the sampling rate before recording.

The default sampling rate is 10989Hz. You may change the sampling rate from 4000Hz to 12048Hz. The Hz is the frequency for collecting the voice sample per second.

The higher the sampling value the higher the recorded resolution is and therefore occupies more memory causing the recording time to be shorter.

When you are recording to memory, you must save the voice to disk after you have found it satisfactory.

If you try to do recording when there are voice data already exist in the memory (previously recorded or loaded), The program will prompt you with a dialog box. If you choose "Yes", the memory contents will be over written.

6.2   TO DISK

```
┌──────────────────────────────────────────────┐
│                   Record                       │
│  Max  rec  time  :  25  Sec     █Begin█        │
│  Sampling  rate:  10989  Hz                    │
│  ◄▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓□▒►    █Exit█               │
│                        ┌──────────────────────┐│
│                        │        Voice          ││
│                        │  Record  to  disk     ││
│                        │        1  sec         ││
│                        │      █Stop█           ││
│                        └──────────────────────┘│
└──────────────────────────────────────────────┘
```

Mouse   : Point to the word "Record" and [click]. When a pull-down menu appears, [click] "To Disk". A "Record" dialog box appears. [Click] "Begin" to start or "Stop" to stop recording.

Keyboard : Hold down the [ALT + R] for the pull-down menu. Use the up/down key to move the highlighted bar to the option "To Disk" and choose it by pressing [Enter]. Press [B] to start or [S] to stop recording.
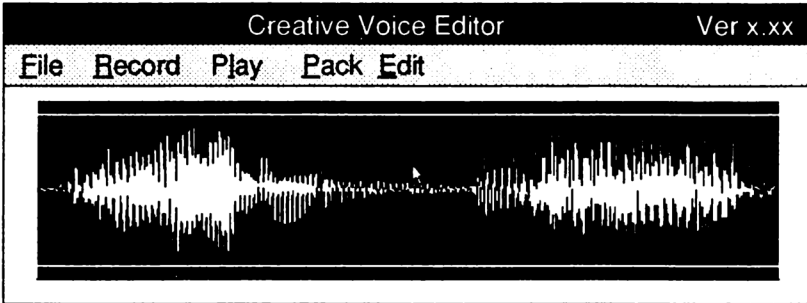
This functon allows you to record directly to the disk, you will have to supply a filename before recording.

The recording time will only be retricted by the available free disk space you have.

Choosing a file name that is already exist will cause the program to prompt you to continue. If you choose "Yes" the file will be over written with the newly recorded data.

6.3   Scan Input

```
┌─────────────────────────────────────────────────────────┐
│          Creative Voice Editor              Ver x.xx     │
├─────────────────────────────────────────────────────────┤
│  File  Record  Play  Pack  Edit                          │
├─────────────────────────────────────────────────────────┤
│                                                          │
│        waveform display                                  │
│                                                          │
└─────────────────────────────────────────────────────────┘
```

Mouse   : Point to the word "Record" and [click]. When a pull-down menu appears, [click] "Scan Input". A "Scan Input" window panel appears.

·To stop the scan input just click the mouse button .

Keyboard : Hold down the [ALT + R] for the pull-down menu. Select an option by using the up/down arrow keys. Move the highlighted bar to the option "Scan Input" choose it by pressing [enter].

To stop the scan input test, press any key.

This function allows you to test the input level. To start the "Scan Input" test, select the "Scan Input", a display panel appears. Now, speak into the microphone and watch the waveform as you speak. If the waveform is too narrow, the sound will be too soft when you record. If it is too wide and is cut off at the top and bottom, the sound will be distorted. The optimum recording level is achieved when portions of the waveform just barely reach the top and bottom of the window.

Ajust the scan input by moving the microphone closer to or further away from your mouth. To stop the scan input test, [click] the mouse button for keyboard user just press anykey.
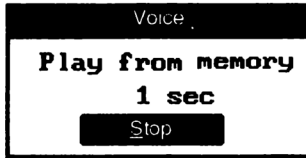
```
┌─────────────┐
│ Play        │
├─────────────┴───┐
│ From Memory     │
│ Selected Blocks │
│ From Disk       │
└─────────────────┘
```
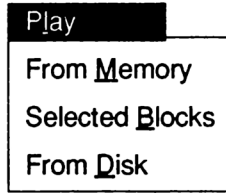
This function allows you to play back the voice you have just recorded or loaded from disk.

It is able to select the correct sampling rate, compression format etc, from the information provided in the file header.

6.1   From Memory

```
┌──────────────────────────┐
│         Voice            │
├──────────────────────────┤
│    Play from memory      │
│        1 sec             │
│  ┌──────────────────┐    │
│  │      Stop        │    │
│  └──────────────────┘    │
└──────────────────────────┘
```

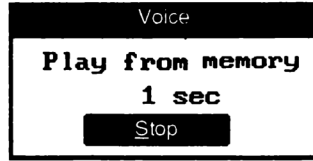Before using this function, load a voice file from the "File" menu.

Mouse   : Point to the word "Play" and [click]. When a pull-down menu appears, [click] "From Memory". When a "Voice" dialog box appears at the same time you can listen to the outputting sound.

Keyboard : Hold down the [ALT] + [P] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "From Memory" and select it by pressing [Enter].

This function allows you to play back the voice you have just recorded or loaded to the memory.
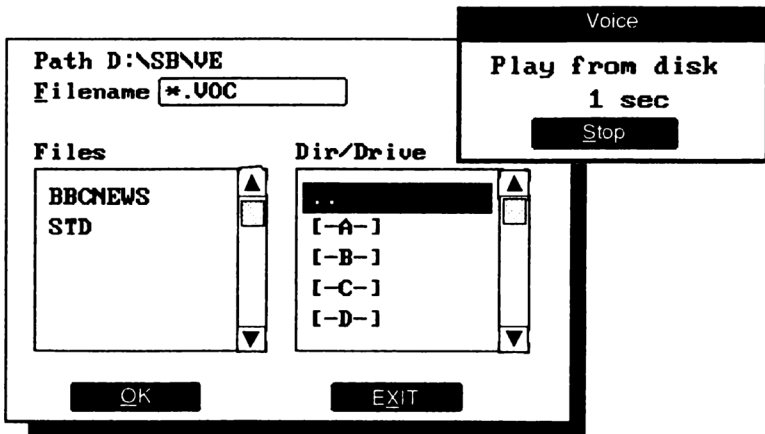
6.2   Selected Block

```
┌─────────────────────────┐
│         Voice           │
├─────────────────────────┤
│   Play from memory      │
│       1 sec             │
│     ▐ Stop ▌            │
└─────────────────────────┘
```

Before using this function, load a voice file from the "File" menu. After loading, move the pointer to the Block list, Drag the mouse with the botton depressed. A series of block in the list box will be marked.

This function allows you to play back a selected block of voice you have just recorded from a disk or loaded from the memory.

Mouse   : Point to the word "Play" and [click]. When a pull-down menu appears, [click] "Selected Blocks".

Keyboard : Hold down the [ALT] + [R] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Selected Blocks" and choose it by pressing [Enter].

6.3   From Disk

```
┌──────────────────────────────┬──────────────────┐
│                              │      Voice        │
│  Path D:\SB\VE               ├──────────────────┤
│  Filename [*.VOC      ]      │  Play from disk   │
│                              │      1 sec        │
│  Files          Dir/Drive    │    ▐ Stop ▌       │
│  ┌──────────┐▲  ┌──────────┐▲│                   │
│  │ BBCNEWS  │   │ ..       │ └───────────────────┘
│  │ STD      │   │ [-A-]    │
│  │          │   │ [-B-]    │
│  │          │   │ [-C-]    │
│  │          │   │ [-D-]    │
│  └──────────┘▼  └──────────┘▼
│   ▐  OK  ▌       ▐  EXIT ▌
└──────────────────────────────────┘
```

Before using this function, load a voice file from the "File" menu and select it.

Mouse   : You may select other sub-directories by using the mouse pointing to the filename of the sub-directory and [click] it. You may also move to a higher directory by clicking the ".." file.

Keyboard : You may select other sub-directories by moving the cursor to the filename of the sub-directory and hit [Enter]. You may also move to a higher directory by selecting the ".." file.
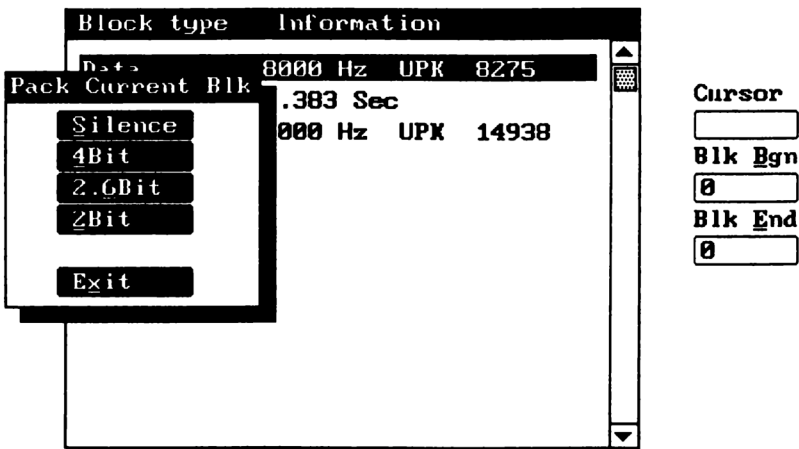
8 PACKING A VOICE FILE

```
 Pack
 Memory
 Disk
```
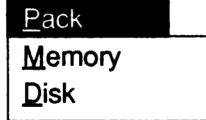
This function allows you to pack your recorded data using the scheme you desire. Three data compression are offered here: 4 Bit, 2.6 Bit and 2 Bit.

(see "7.2 Using Voxkit and its utilities" of Sound Blaster User Manual for details)

8.1 Memory

```
 Block type    Information

 D-+-          8000 Hz  UPK  8275         Cursor
 Pack Current Blk  .383 Sec
   Silence         000 Hz  UPK  14938     Blk Bgn
   4Bit                                   0
   2.6Bit                                 Blk End
   2Bit                                   0

   Exit
```

Mouse   : Point to the word "Pack" and [click]. When a pull-down menu appears, you can select "Memory".

The "cursor" here indicate the position where the mouse move to.

You can select all the data or a few blocks of data to do packing. Press the mouse button and drag until the rectangle box turns into a double line, by doing this you can mark the selected blocks.

Keyboard : Hold down the [ALT]+[P] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Memory" and choose it by pressing [Enter].
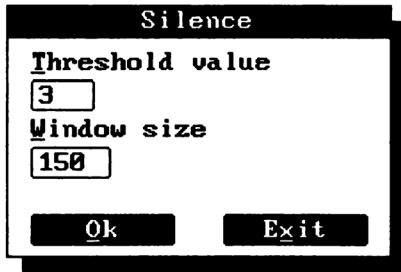
Move the highlighted bar in the "Block Information window by using the up/down keys.

To mark the beginning block hold down [Ctrl] + [B] and type in the number. Similarly [Ctrl] + [E] is for the end block and type in the number where you want it to end.

This function here use the memory as the work space. After selecting the Blocks, you may select any of the packing available on the "Pack Current Blk" window.

(refer to Pg 32 of Sound Blaster User Manual for details on data packing)

Define a silence period

```
┌─────────────────────────────┐
│          Silence            │
├─────────────────────────────┤
│  Threshold value            │
│  ┌3    ┐                    │
│  Window size                │
│  ┌150  ┐                    │
│                             │
│  ████ Ok ████   ████ Exit ████ │
└─────────────────────────────┘
```

1. Threshold value
   This value is use to define the range of values that are considered as silence data values.

   A datum that is having a value lies between the original silence value (128)± threshold value is considered as silence datum.

   The default threshold value is 3. The silence values range is from 125 to 131.

2. Window size
   If number of data that falls in the silence range is greater than the window size defined. This group of data can be formed as a silence period.
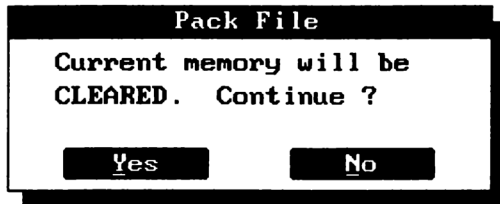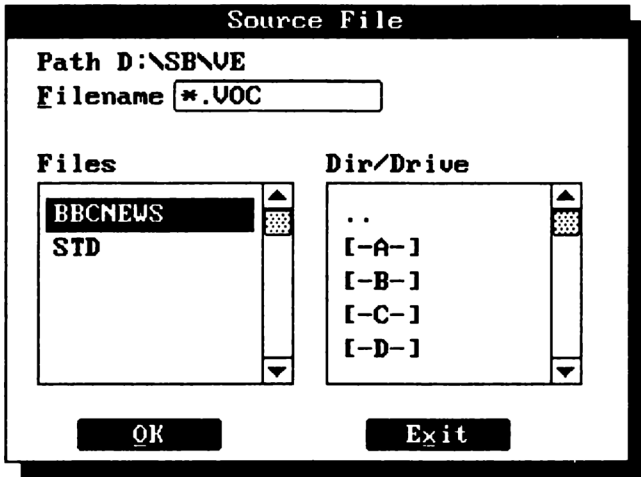
8.2   Disk

```
┌─────────────────────────┐
│       Pack File         │
├─────────────────────────┤
│     ███████████████     │
│     █ Silence    █      │
│     ███████████████     │
│     █ 4Bit       █      │
│     ███████████████     │
│     █ 2.6Bit     █      │
│     ███████████████     │
│     █ 2Bit       █      │
│     ███████████████     │
│                         │
│     ███████████████     │
│     █ Exit       █      │
│     ███████████████     │
└─────────────────────────┘
```

Mouse   : Point to the word "Pack" and [click]. When a pull-down
             menu appears, you can select "Disk". Select any of the
             options here to do packing.

Keyboard : Hold down the [ALT] +[P] for the pull-down menu. Use the
             up/down keys to move the highlighted bar to the option
             "Disk" and select it by pressing [Enter]. Select any of the
             options here by typing the character which is underlined.

This function, however, will use the main memory as tempory workspace
to store the packed data. The program will warn you about this. If you
select "Yes" from the dialog box, your memory contents will be erased.

```
┌─────────────────────────────────────┐
│            Pack File                │
├─────────────────────────────────────┤
│   Current memory will be            │
│   CLEARED.   Continue ?             │
│                                     │
│     ██████████        ██████████    │
│     █ Yes    █        █ No     █    │
│     ██████████        ██████████    │
└─────────────────────────────────────┘
```

After this, if you choose "Yes", VEDIT will prompt you to select the source
file that you wish to pack.

```
┌─────────────────────────────────────────────┐
│              Source File                     │
├─────────────────────────────────────────────┤
│ Path D:\SB\VE                                │
│ Filename [*.VOC          ]                    │
│                                              │
│ Files              Dir/Drive                 │
│ ┌──────────────┬─┐  ┌──────────────┬─┐       │
│ │ BBCNEWS      │▲│  │ ..           │▲│       │
│ │ STD          │▒│  │ [-A-]        │▒│       │
│ │              │ │  │ [-B-]        │ │       │
│ │              │ │  │ [-C-]        │ │       │
│ │              │ │  │ [-D-]        │ │       │
│ │              │▼│  │              │▼│       │
│ └──────────────┴─┘  └──────────────┴─┘       │
│   ▆▆▆▆ OK ▆▆▆▆        ▆▆▆ Exit ▆▆▆           │
└─────────────────────────────────────────────┘
```

After inputting the source file, you must supply with a target file name.
Choosing back the same name as the source filename it will overwrite a
new packed data into it.

```
      Edit
   Insert
   Delete
   Modify
   Move
   Copy
   Combine
```
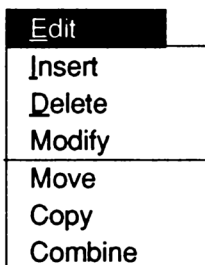
This function allows you to edit your recorded voice file. There are six functions offered here: Insert, Delete, Modify, Move, Copy and Join.

9.1   Insert

```
   *  INSERT  *
      Silence
      Marker
      ASCII
      Repeat

      Exit
```

Mouse   : Point to the word "Edit" and [click]. When a pull-down menu appears, [click] "Insert". The "Insert" dialog box appears. There are four functions offered here: Silence, Marker, ASCII and Repeat.

Keyboard : Hold down the [ALT] +[E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Insert" and choose it by pressing [enter].

Silence   :   Silence period count in seconds.
Marker   :   A value use to perform synchronization with the voice output process.
ASCII   :   A text string to describe the voice data.
Repeat   :   Repeat following data blocks for number of times specified until end of repeat loop.
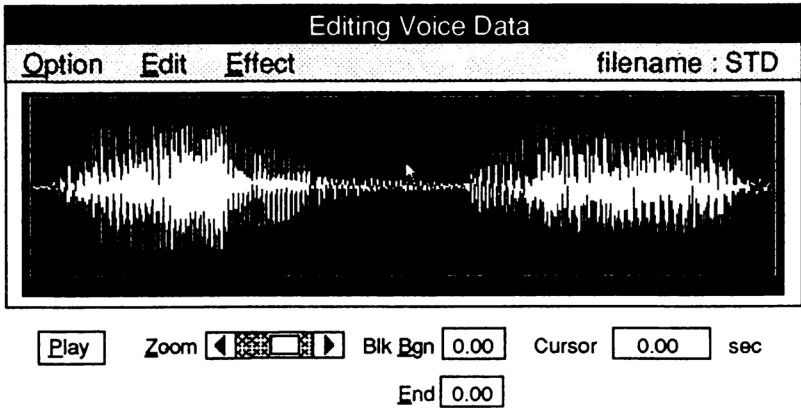End Repeat: Indicate the end of repeat blocks.

9.2   Delete

```
Block type      Information
┌─────────────────────────────────────┐ ▲
│ Data          8000 Hz  UPK   8275    │ ▒       Cursor
│ Silence       0.383 Sec              │        ┌──────────┐
│ Data          8000 Hz  UPK   14938   │        │          │
│ Terminator    ┌──────────────Delete──┐        └──────────┘
│               │                       │
│               │  Delete current block ?│
│               │                        │
│               │   ┌───────┐  ┌───────┐│
│               │   │  Yes  │  │  No   ││
│               └───┴───────┴──┴───────┘│
│                                       │ ▼
└─────────────────────────────────────┘
```
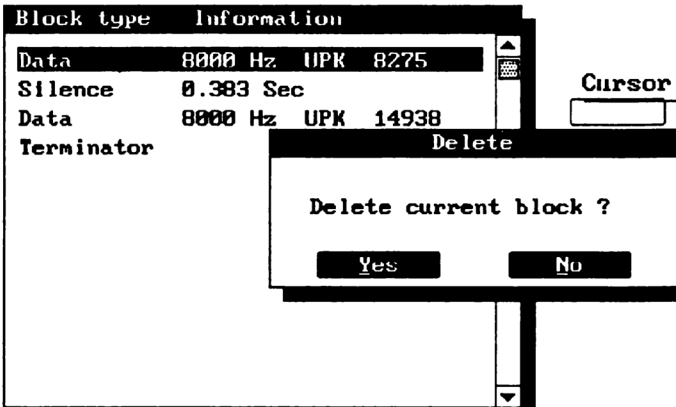
Mouse   : Point to the word "Edit" and [click]. When a pull-down menu appears, [click] "Delete". The "Delete" dialog box appears.

You can select the current file or press the mouse button and drag until you see the rectangle box turns into a double line box, by doing this, you can mark all the blocks and delete it.

Keyboard : Hold down the [ALT] +[E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Delete" and select it by pressing [Enter].

To mark the beginning block hold down [Ctrl] + [B] and type in the number. Similarly [Ctrl] + [E] is for the end block mark and type in the number where you want it to end.

9.3   Modify

Editing Voice Data

Option   Edit   Effect   filename : STD

[Play]   Zoom ◀▨▨☐▨▶   Blk Bgn [0.00]   Cursor [0.00]   sec
                                            End [0.00]

Mouse   : Point to the word "Edit" and [click]. When a pull-down menu
             appears, [click] "Modify". A "Modify" window panel appears.
             This function allows you to do some modifications like cutting
             voice data, change sampling rate, perform amplify and echo
             effect.
Keyboard : Hold down the [ALT] +[E] for the pull-down menu. Use the
             up/down keys to move the highlighted bar to the option
             "Modify" and select it by pressing [Enter].

9.3.1 OPTION

Option

Split block
Edit sampling rate
Exit
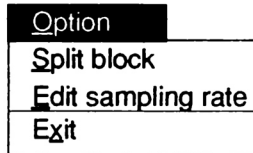
9.3.1.1   Split block

Mouse   : [Click] the mouse button in the modification window, you
             will see a line appears on the waveform. [Click] at the place
             where you want it to be splitted. To deselect the waveform
             just [click] the mouse button. You can use "Zoom" to enlarge
             the waveform. Zoom it by using the scroll bar.
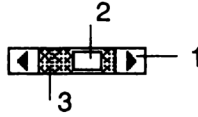
There are three ways to use the scroll bar.
1 clicking the arrows
2 clicking in a scroll bar blue shaded areas
3 dragging the small green scroll box

The "Cursor" here will show you the position of the mouse cursor movement in unit of second.

[Click] at the place where you want the data to be splitted. A line cursor will appear.
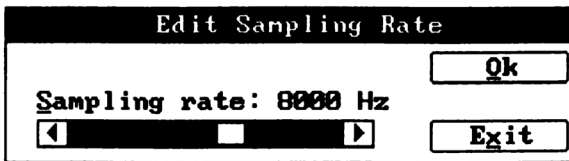
Point to the word "Option" and [click]. When a pull-down menu appears, [click] "Split block". The voice data will be splitted at the place where the line cursor locate. After exiting from this option, you will see another block information appeared right after the current block. This is the block that has just been splitted.

Keyboard : Hold down the [ALT] +[E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Modify" and choose it by pressing [Enter].

Move the line cursor by using the [Tab] key or [Shift] + [Tab] key. A smaller step can be made by using the [<] and [>] key.

Move the line cursor to the place where you want your waveform to be splitted. Hold down [Alt] + [O] for the pull-down menu, select "Split block" to split the waveform.

9.3.1.2   Edit sampling rate

Mouse   : [Press] the mouse button and drag to block a portion of voice file to be edited. You can deselect the block by using a single click in the waveform.

Point to the word "Option" and [click]. When a pull-down menu appear. [Click] "Edit sampling rate". A "Edit Sampling Rate" dialog box appears . You can edit the sampling rate from 4000 Hz to 23255 Hz, do it by using the scroll bar. [Click] "Ok" to confirm or [click] "Exit" to quit.
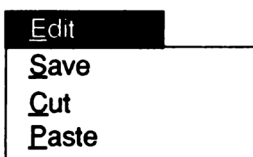
Keyboard : Move the line cursor by using the [Tab] key or [Shift] + [Tab] key. Move the line cursor to its right place. To mark the beginning block, hold down [Ctrl] + [B]. Similary [Ctrl] + [E] for end block.

Now, hold down [Alt] + [O] for the pull-down menu. Use the up/down keys move the highlighted bar to the option "Edit Sampling Rate" and choose it by pressing [Enter].
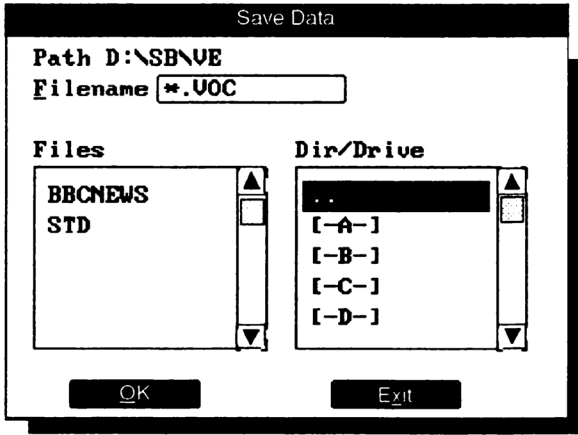
Press [S] to edit sampling rate. When the bar is highlighted, use left/right keys to change the value. Hold down [Ctrl] + arrows keys to make a smaller step.

Hit [Enter] or [Esc] after changing.

9.3.2   EDIT

| Edit |
| Save |
| Cut |
| Paste |

9.3.2.1   Save


```
                    ┌─────────────────────────────────┐
                    │          Save Data              │
                    │ Path D:\SB\VE                    │
                    │ Filename [*.VOC            ]      │
                    │                                  │
                    │ Files              Dir/Drive     │
                    │ ┌──────────┐▲    ┌──────────┐▲   │
                    │ │ BBCNEWS  ││    │ ..       ││   │
                    │ │ STD      ││    │ [-A-]    ││   │
                    │ │          ││    │ [-B-]    ││   │
                    │ │          ││    │ [-C-]    ││   │
                    │ │          ││    │ [-D-]    ││   │
                    │ └──────────┘▼    └──────────┘▼   │
                    │    ▄▄▄▄▄▄          ▄▄▄▄▄▄         │
                    │    ▄ OK ▄          ▄ Exit ▄       │
                    └─────────────────────────────────┘
```

Mouse   : Point to the word "Edit" and [click]. A pull-down menu appears. [Click] "Save". A "Save" dialog box appears. Just [click] at the "Filename" and enter the newname you will be using. [Click] "Ok" to confirm or "Exit" to quit without saving.

Keyboard : Hold down [Alt] + [E] for the pull-down menu. Use the up/down keys move the highlighted bar to the option "Save" and select it by pressing [enter]. A "Save" dialog box appears. Type in the newname you will be using and press "O" to confirm or "X" to quit without saving.

9.3.2.2   Cut

cut
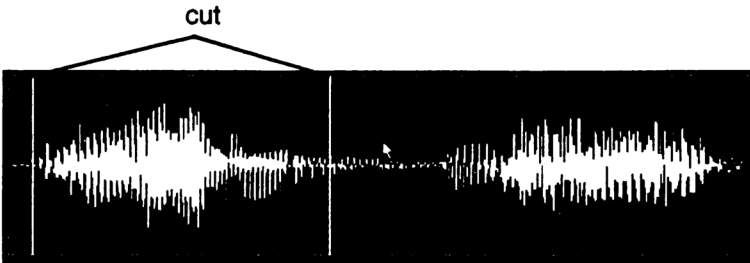
Mouse : [Click] the mouse button at the waveform, a line appears on the screen. Press the mouse button and drag until you selected the portion of waveform to be cut then released the mouse button. The portion of waveform to be cut off will be highlighted.

Point to the word "Edit" and [click]. A pull-down menu appears. [Click] "Cut". The highlighted waveform will be cut off immediately.

Keyboard : Move the line cursor by using the [Tab] key or [Shift] + [Tab] key. A small step can be made by using the [<] and [>] key. Move the line cursor to the place where you want the waveform to be cut. To mark the beginning block, hold down [Ctrl] + [B]. Similary [Ctrl] + [E] for end block.
Hold down [Alt] + [E] for the pull-down menu. Use the up/down keys move the highlighted bar to the option "Cut" and choose it by pressing [Enter]. The highlighted waveform will be cut off immediately.

9.3.2.3 Paste
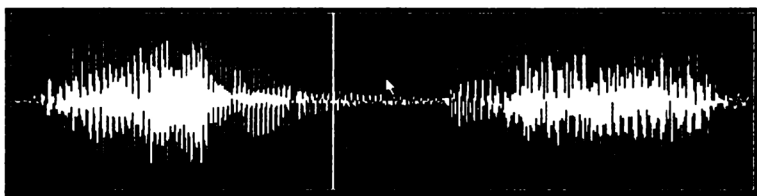
This function allows you to paste back the waveform which has been cut off earlier.

Mouse : [Click] the mouse button at the waveform, a line appears on the screen. Position the line where you want your waveform to be pasted. Point to the word "Edit" and [click]. A pull-down menu appears. [Click] "Paste". The waveform pastes back to the position place.

Keyboard : Move the line cursor by using the [Tab] key or [Shift] + [Tab] key. A small step can be made by using the [<] and [>] key. Move the line cursor to the place where you want the waveform to be pasted.

Hold down [Alt] + [E] for the pull-down menu. Use the up/ down keys move the highlighted bar to the option "Paste" and select it by pressing [enter]. The highlighted waveform will be pasted immediately.

9.3.3   EFFECT

Effect
Amplify
Echo

9.3.3.1   Amplify
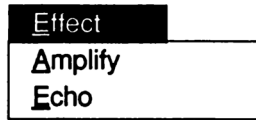
Amplify
Percent
(200) %
OK   Exit
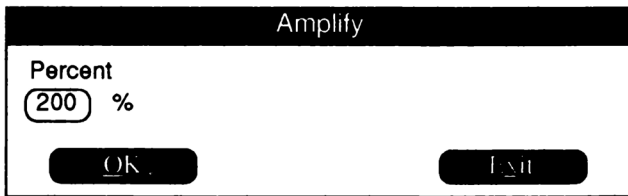
Mouse   : Point to the word "Amplify" and [click]. A pull-down menu appears. [Click] "Amplify". A "Amplify" dialog box appears.
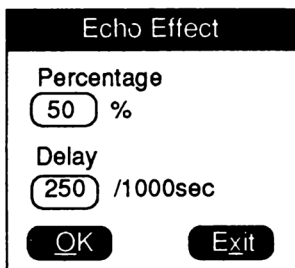
Keyboard : Hold down the [Alt] + [E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Amplify" and choose it by pressing [Enter].

This functon allows you to "amplify" the selected part of voice or the entire voice file. Vedit will prompt you to enter the amplification percentage.

At default, it is set to 200%, that is to double the amplification of the voice data. Setting at 100% will not change anything and 50% will reduce the data to half its original value. Select "OK" to confirm or "Exit" to exit without changing.

9.3.3.2 Echo

```
╔═══════════════════════════╗
║       Echo Effect         ║
╠═══════════════════════════╣
║  Percentage               ║
║   ( 50 ) %                ║
║                           ║
║  Delay                    ║
║   ( 250 ) /1000sec        ║
║                           ║
║  ▐ OK ▌      ▐ Exit ▌     ║
╚═══════════════════════════╝
```

Mouse   : Point to the word "Effect" and [click]. A pull-down menu appears. [Click] "Echo". A "Echo effect" dialog box appears.

Keyboard : Hold down the [Alt] + [E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Echo" and choose it by pressing [Enter].
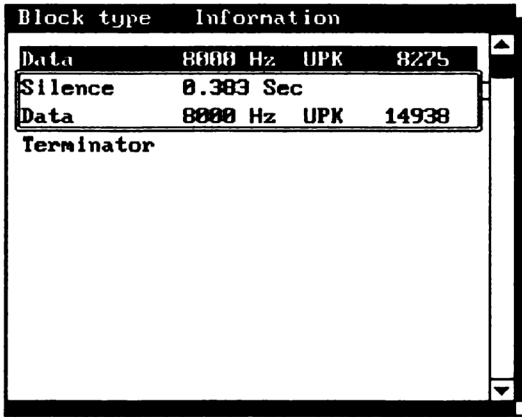
This function allows the "Echo effect" repeats a sound with a decay, producing an effect similar to what you would hear if you yelled into a tunnel.

You should consider adding some silence at the end of a sound before applying the "Echo effect". This provides time for the sound to fade gradually.

The "Percentage" means the strength of the repeating portion of the sound. A 10% echo dies out very quickly; a 50% echo fades after several repetitions; and 100% echo never dies out (each repetition of the sound is as loud as the previous one.

The "Delay" means the length of time before the sound starts repeating itself.

9.4   Move

```
┌─────────────────────────────────────────┐
│ Block type     Information               │
├─────────────────────────────────────┬───┤
│ Data           8000 Hz   UPK   8275 │ ▲ │
│ Silence        0.383 Sec            │   │
│ Data           8000 Hz   UPK  14938 │   │
│ Terminator                          │   │
│                                     │   │
│                                     │   │
│                                     │   │
│                                     │   │
│                                     │ ▼ │
└─────────────────────────────────────┴───┘
```

Before using this option, select the destination where you want the source to be moved. Select one or a few blocks of data to be moved.

Mouse   : Now, point to the word "Edit" and [click]. A pull-down menu appears. Select "Move", the block of data which is being marked immediately moved to the new destination.

Keyboard : Hold down the [Alt] + [E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Move" and choose it by pressing [Enter]. By pressing [Enter], the marked block immediately moved to a new destination.

9.5   Copy

```
Block type    Information

Data         8000 Hz  UPK    8275    ▲
Silence      0.383 Sec
Data         8000 Hz  UPK   14938
Terminator




                                     ▼
```

Before using this option, select the destination where you want the source to be copied. Select one or a few blocks of data to be copied.

This function allows you to copy the marked blocks to another destination.

Mouse   : Now, point to the word "Edit" and [click]. A pull-down menu appears. Select "Copy", the block of data which is being marked immediately copied to the new destination.

Keyboard : Hold down the [Alt] + [E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Copy" and choose it by pressing [Enter]. After pressing [Enter], the marked block immediately copied to a new destination.

9.6   Combine

```
Block type     Information
┌─────────────────────────────────┐
│ Data          8000 Hz   UPK    8225  ▲ │
│ Silence       0.383 Sec               │
│ Data          8000 Hz   UPK   14938   │
│ Terminator                            │
│                                       │
│                                       │
│                                       │
│                                    ▼  │
└─────────────────────────────────┘
```

Before using this function, select the blocks of data which you want it to be combined.

This function allows you to combine two or more blocks of data blocks together.

Mouse   : Point to the word "Edit" and [click]. A pull-down menu appears. Select "Combine", the block of data which is being marked are combined immediately.

Keyboard : Hold down the [Alt] + [E] for the pull-down menu. Use the up/down keys to move the highlighted bar to the option "Combine" and choose it by pressing [Enter]. By pressing [Enter], the marked blocks are combined immediately .

10.   ERROR MESSAGES

Error 5301 : "unknown switch - /X"
Switch /X entered in the command line is not recognized.
Only /B is recognized as the parameter to set the buffer size
used for playing a file from disk.

Error 5302 : "invalid parameter X"
Parameter X in command line is not recognized.

Error 5303 : "memory allocation error: XXXXXX"
Error while doing memory allocation. Remove any other
unnecessary resident programs.

Error 5304 : "cannot open file: XXXXXXXX"
The file named XXXXXXXX cannot be opened. Either the
file does not exist or disk error occurs when accessing the
file.

Error 5305 : "cannot read file: XXXXXXXX"
Error occur while reading from the file XXXXXXXX. This
may be caused by disk error.

Error 5306 : "cannot write file: XXXXXXXX"
Error occur while writting to the file XXXXXXXX. This
may be caused by disk error.

Error 5307 : "out of system memory"
System memory is not enough for running the program.
Remove other resident programs to run the program.

Error 5308 : "incorrect driver version"
The CT-VOICE driver version must be equal or higher than
1.00.

Error 5309 : "incorrect card version"
Sound Blaster Card version must be equal or higher than
1.00.

Error 5310 : "I/O port error or no card is installed"
Sound Blaster Card I/O port conflict with other cards or
CT-VOICE driver is not install at the correct I/O port.

(Refer to Sound Blaster User Reference Manual section 2.1
and 2.3 for installation of card and sound driver.)

Error 5311 : "wrong interrupt jumper setting or interrupt error"
Conflict of interrupt lines (IRQ) has occured.

(Refer to Sound Blaster User Reference Manual section 2.2
and 2.3 for selecting interrupt line and installing sound
driver.)

Error 5312 : "file size too large: XXXXXXXX"
An attempt to read a large raw data file has occured. Add
Creative File Header to the raw data file immediately to
solve the problem.

Error 5313 : "no filename specified"
No filename specified for the file operation selected.

Error 5314 : "unknown block type - XX"
An unknown block type of voice data has been encountered.
This may due to the corruption of voice file. Quit the
program and verify the voice file before proceeding.

Error 5315 : "voice file data error"
Voice data has been corrupted. Quit the program and
verify the voice file before proceeding.

Error 5316 : "insufficient disk space"
Disk space is full. Deleteing some unused files in the disk
may solve the problem.

Error 5317 : "CT-VOICE.DRV not found"
The voice driver is missing. Check the existance of CT-
VOICE.DRV and the SOUND environment.

(Refer to Sound Blaster User Reference Manual Section 2.5
for setting SOUND environment.)

Error 5318 : "insufficient memory"
Current memory is not enough for the operation has just been chosen.

Error 5319 : "data cannot be edited"
Data in the block specified cannot be edited.
see eg. END REPEAT BLOCK

Error 5320 : "silence period not found"
The silence packing algorithm cannot find silence period in the voice data. This may due to the noise occur during recording or the voice data has been packed by another packing method.

Error 5321 : "data cannot be packed"
The voice block cannot be packed or voice data in the block has been packed by another packing method.

Error 5322 : "invalid value"
An invalid value has been entered by the user. Eg. 0 Sec for silence period.

Error 5323 : "incorrect destination"
Incorrect destination for moving or copying blocks. Move the current highlighted bar to other blocks.

Error 5324 : "record to disk error"
Error occurs while record to disk. This may caused by disk error.

Error 5325 : "output from disk error"
Error occurs while output from disk. This may caused by disk error.

Error 5326 : "number expected after X"
A numerical value is require after the parameter X.

Error 5327 : "too few data for splitting"
Voice data is not enough for splitting into two blocks.

Error 5328 : "EGA or VGA card needed"
The program requires an Enhance Graphic Adapter card or Video Graphic Array card.

Error 5329 : "block cannot be splitted"
The data in the block specified cannot be splitted into two sub blocks.

11. COMMON QUESTIONS

PROBLEM : During voice data editing, only a "POP" sound is heard when "Play" is clicked.

ANSWER : This problem may be caused by playing a small part of the voice data. When you blocked a portion of the voice data, the "Blk_Bgn" and the "Blk_End" window will show the beginning and the ending time of the markek area. If both of these value are simillar, a "POP" sound will be heard when playing this marked area. To prevent this, you can either increase the marked area or remove the marked area away.

PROBLEM : How can I view the detail part of a waveform ?

ANSWER : To view the detail part of a waveform you can mark the desired area first. To zoom the zoom value, move the cursor of the scroll bar to the left. The zoom in waveform will show the beginning part of the marked area. Here after, you can scroll the waveform to the left or right for viewing.

PROBLEM : When I play a file from disk, "Insufficient disk space" error was encountered.

CAUSE : Before playing a file from disk the program will allocate buffers in the memory. When the memory is not enough, it will open a temporary file to save a portion of the memory into the file to create the buffer. So when error occurs is due to the disk space is not enough for saving the temporary file.

REMEDY : Delete some of the unused files from the disk or set the disk buffer smaller then what it was at the command line.

(The default value for the disk buffer is 16. Please refer to Chapter 2 for more details.)

PROBLEM : How can I load a 8 bit binary sound file ?

ANSWER : You can load any 8 bit binary file without any header. Firstly, you have to rename the file to the extention ".VOC" and load it using the "Load" function in VEDIT. Response to its question positively and you will have the binary file loaded into the memory.

(Some of the problems and solution can be found in the Sound Blaster User Reference Manual).

SOUND BLASTER

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