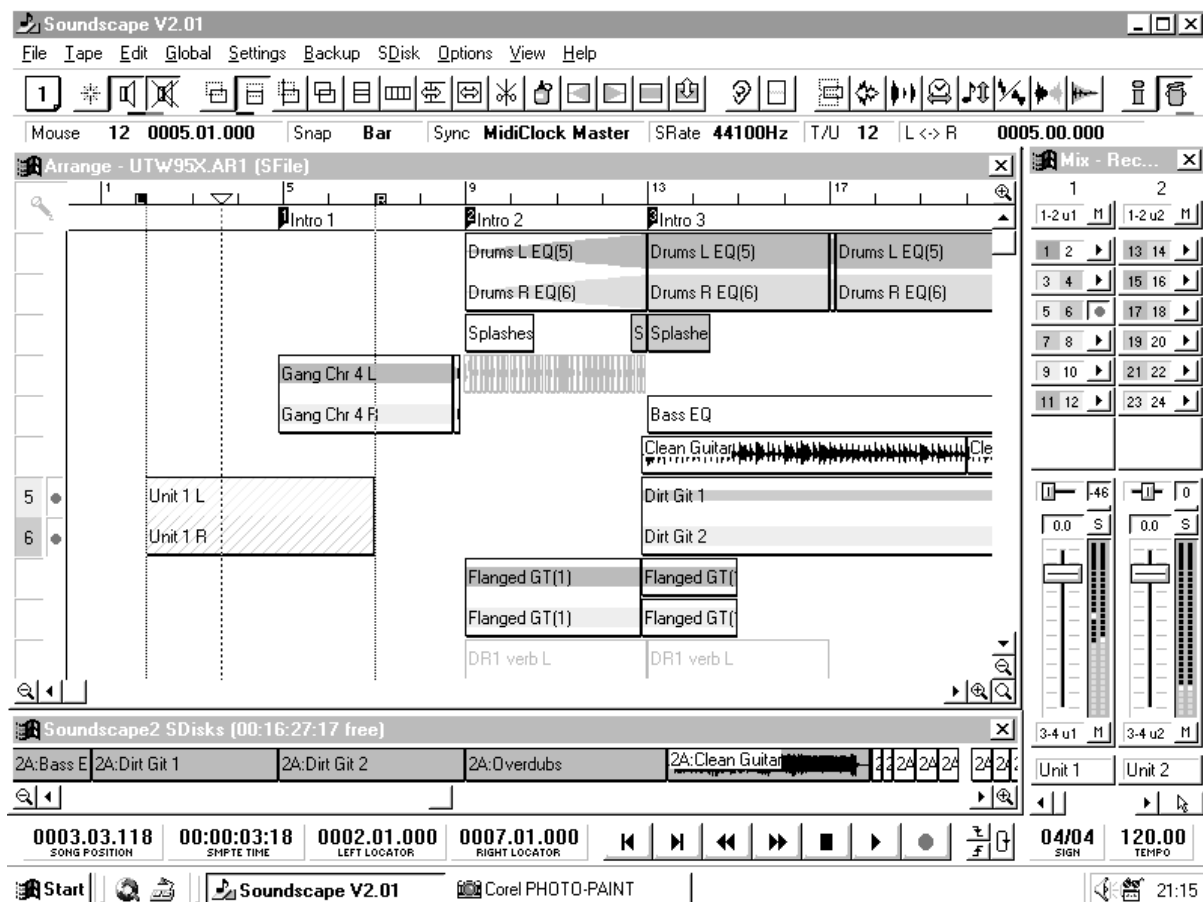


## Tutorial

### Main Screen

The main screen is customisable, so you can display the windows you find most useful. The current selection of windows are: Arrange, Mixer, SFile Manager, Marker Directory, SDisk Directory, AVI Player, Big Current Time, Buffer Activity, and the Main Window with the Toolbar across the top and the Tape Transport across the bottom. Each window can be hidden or displayed in its saved size and position with a single keystroke.



An *arrangement* can contain up to 8192 individual *parts* which use digital audio *takes* stored on Soundscape's hard disk(s). The arrangement can be created, or an arrange file (.arr) can be loaded into the arrange window from either the PC's or Soundscape's hard disk, edited, and then saved back to the PC or SDisk. Up to 4096 takes of any length (limited by the disk size) can be stored on each SDisk.

The arrange file and any associated takes can be backed up to DAT or to any logical PC drive when the hard disk is full.

**If you don't backup... you risk losing your valuable work. We can't help!**

## Main Window and Toolbar



The **Main Window** contains the main menu headings and a **Toolbar** which is used for most on-screen editing.

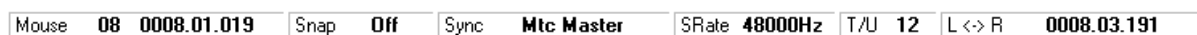
### Tool Selection

Four tools can be selected on the mouse, as shown. Tools are selected for the left and right mouse buttons by clicking on a tool with the mouse button you wish to assign. The **active tool** will have a **black bar** under the left or right side to identify which mouse button is assigned. Holding the **ALT key** while selecting the tool allows two additional tools to be selected, identified with a **red bar** under the left or right side of the tool icon. The **ALT key** must also be pressed when using the editing tools assigned in this way. Note that the tool will remain selected even if a different tool page is selected which does not contain that tool icon.



*Note: If the same tool is selected for the left and the Alt+left mouse buttons, then only the black bar will be shown.*

### Status Bar



The Status bar, displayed underneath the toolbar, provides information and quick selection for some of the more commonly accessed parameters from the **Settings menu**, as well as showing the current mouse position within the arrangement. Currently selected values for Snap, Synchronisation, Sample Rate and Tracks per Unit are displayed. The time between left and right locators is also displayed in **bars:beats:ticks** or **SMPTE + sample extension** at the current frame rate.

*The Status bar can be turned on or off under the View menu.*

### Mouse Position

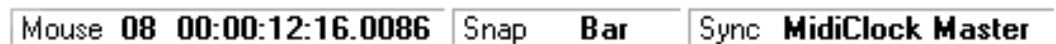
The **Mouse position** is continuously updated with the current position in the arrangement. The **Snap** setting determines the resolution of the readout, and the **Time Axis setting** (SMPTE or bars:beats:ticks) determines how the position is displayed. In SMPTE mode the sample within each frame is also shown. The number displayed on the far left indicates which 'virtual' track the mouse is currently placed over. This is useful for keeping parts on the same track in large arrangements. For example, you may want to keep all vocal takes on track 17 so that you can use global edits to alter the volume or positioning even if some of the vocals are assigned to different outputs.

The mouse resolution across the display depends upon the screen resolution (e.g. 800 or 1024 pixels), so don't expect to be able to move in steps of 1 frame when you are displaying 1 minute of the arrangement on screen. If you 'zoom in' the mouse position readout will be as expected.

Bars:Beats:Ticks mode:-

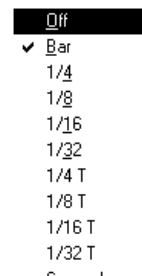


SMPTE mode:-



## Snap Value

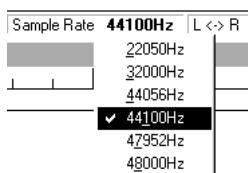
Click on the **Snap value** readout and a menu of snap values will drop down, for quick selection. When parts are moved or copied, the outline of the selected parts that you are dragging will jump to the snap points.



## Sync

Clicking on **Sync** displays a list of synchronisation choices also found in the **Settings** menu, i.e. *Mtc Master, Slave or Trigger and MIDI Clock Master*.

## Sample Rate

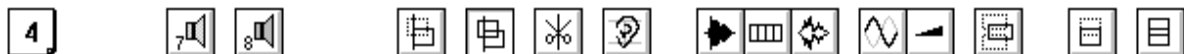


Click on the **Sample Rate** readout to display the same selection as in the **Settings** menu. When using the digital input, the Sample Rate readout shows the frequency being received (except when using TDIF Masterclock).

When the Varispeed is not set at 0.00%, the Sample Rate will be displayed in **Red** in the Status Bar.

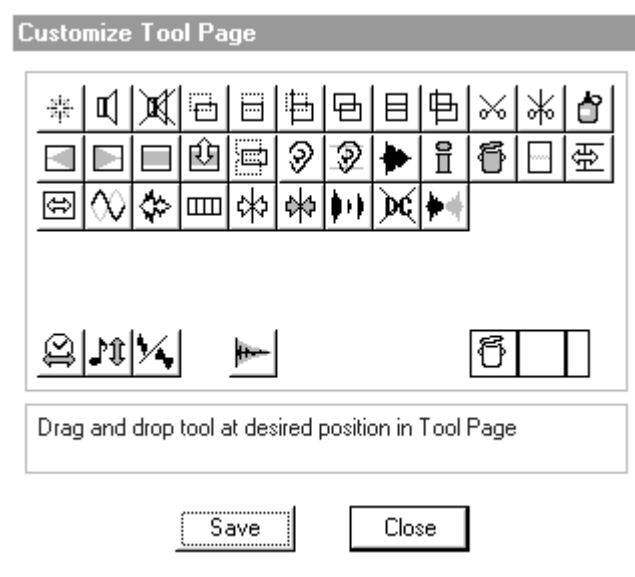
## Customisable Toolbar “Page Up / Page Down” to scroll Toolbars

There are **9** customisable **Toolbars** which can be accessed from the keyboard or by using the mouse. To customise a tool page, first select the tool page you wish to change by clicking with left or right mouse buttons on the tool page number, or using the **page up/down keys**. Next, double click on an empty space in the tool page, or select '**Customise Tool Page...**' in the **Settings** menu.



This will pop up a window with all available tools displayed as shown overpage.

# Soundscape



Click on any tool icon to display a description of it's function. Tool icons can be dragged and dropped in position on the tool page and existing tools will be shifted towards the right to make room for the new tool if necessary.

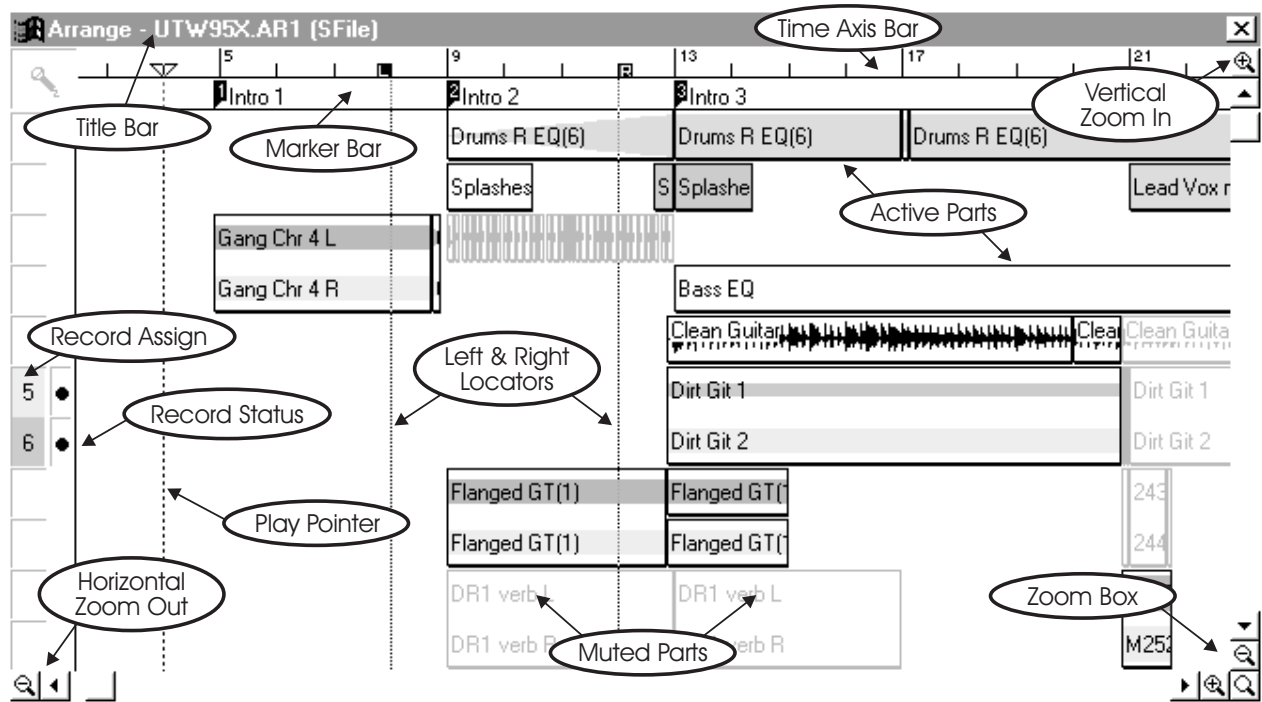
To delete a tool from the tool page, drag and drop the white trash can icon over the one that you wish to remove. Tools will then be shifted to the left to close up the space.

To insert a space between tools, drag and drop the full space or half space icons (empty boxes beside the trash icon) at the required position.

Once you are happy with the tool page, click on **Save** before you select **Close**. This will save all changes you have made to the current tool page in the initialisation (.ini) file.

## Arrange Window “A”

The **Arrange Window** is where most of the work takes place. It shows the on-screen layout of your *arrangement*, with up to **256 virtual tracks** displayed vertically down the screen and any number of *parts* across the screen making up each track. The coloured parts are active and are assigned to one of the 8/12 output or *physical tracks*. All uncoloured tracks or parts are muted, as they are not assigned to an output and so will not be heard when the arrangement is played.



The current file name and storage disk for the arrangement are displayed across the top of the arrange window in the caption bar.

## Record Track Column

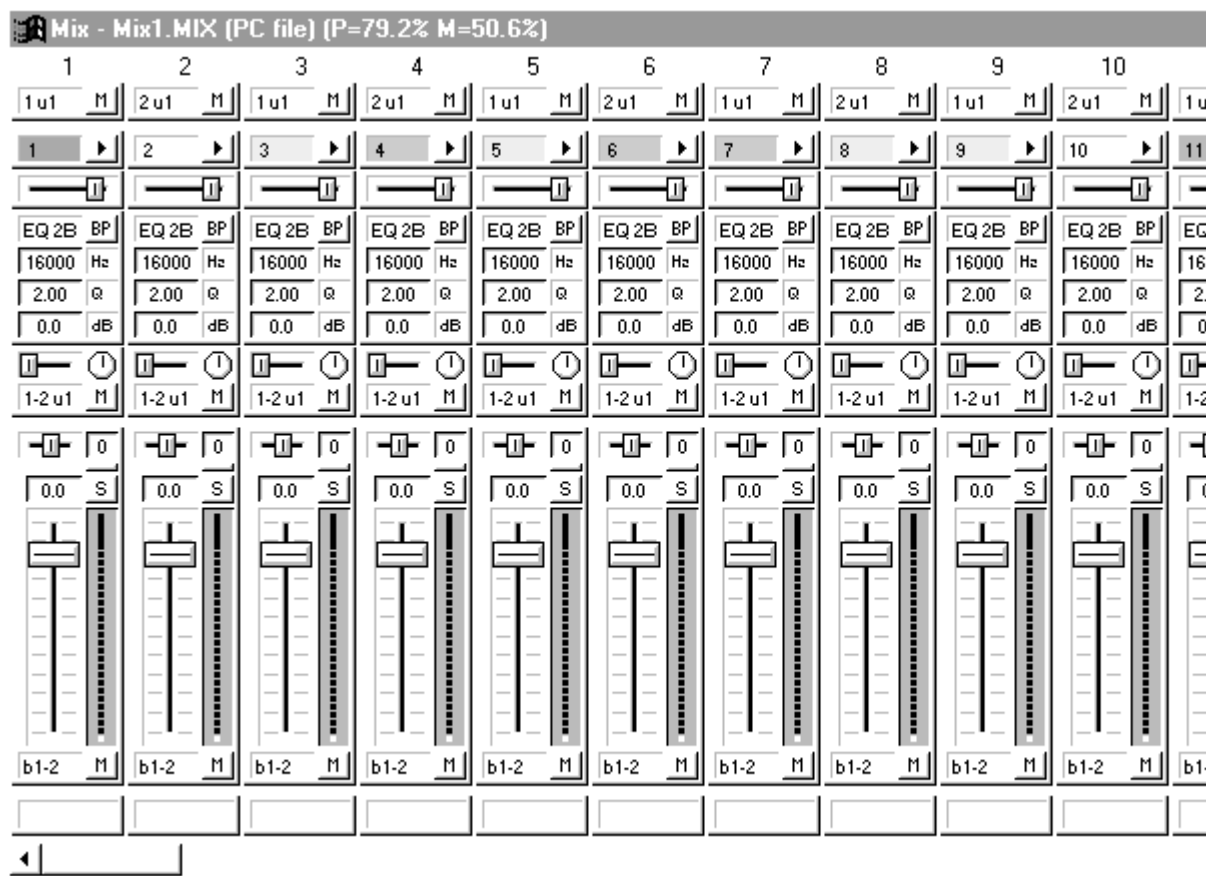
The Record Track Column allows you to setup virtual track position, record loop stack size and track arming status for the track(s) to record onto.

Soundscape can record on up to 12 tracks through its analogue and digital inputs or from any of the 16 busses in the mixer.

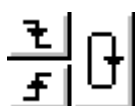
**Note:** When using the analogue inputs, set the -10dBV/+4dBV input level switch on the rear panel of the rack unit for the type of levels you are using (only for the unbalanced RCA/cinch inputs). Professional equipment normally uses a +4dBV level, and semi-professional equipment may use -10dBV.

## To make a recording:-

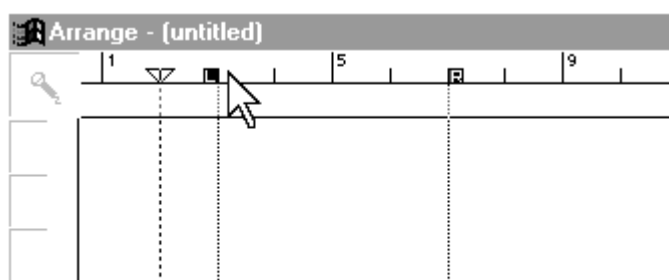
- 1 Open an appropriate mixer for recording. e.g. *mix1.mix*



- 2 If using the punch in/out buttons, set the left and right locators for the length of the part you want to record. Otherwise, just position the play locator where you want to start recording.

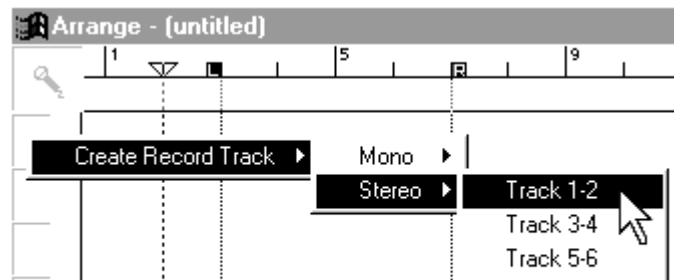


► Punch In/Out Loop Buttons



To set the left locator, click the left mouse button on the time axis bar and the right mouse button for the right locator. To set the play locator, click on a free space in the arrange window. To set a timecode or measure punch point, double click on any locator readout in the transport bar.

- 3 Right click on a free space in the record track column. A “flyout menu” will appear to select mono or stereo and which tracks to record onto.



- 4 Release the mouse on the track(s) you wish to record on. Make the tracks “record ready” by clicking on the circles in the box to the right of the track numbers.

Only record tracks that have corresponding track elements in the mixer get track coloured, and are allowed to be armed for recording. Tracks can also be armed from the mixer, if the corresponding record tracks exist in the record track column.

## Record Track Arming using the Keyboard

You can also arm or disarm individual or multiple record-tracks directly from the keyboard by using the number keys with “\*” to arm, “/” to disarm and “-” to select a track range.

- \* **key** pressed arms all record-tracks that exist in the mixer & record-track.
- \* **key** preceded by an entered number only arms that record-track (if it exists in the mixer & record-track ), eg. **5\*** arms track 5.
- \* **key** preceded by 2 entered numbers separated by - **key**, arms all record-tracks from the first to the second number if they exist. eg. **3-8\*** arms all existing record-tracks from track 3 to 8.

/ **key** pressed disarms all record-tracks that exist.

/ **key** preceded by an entered number only disarms that record-track if it exists. eg. **5/** disarms track 5.

/ **key** preceded by 2 entered numbers separated by - **key**, disarms all record-tracks from the first to the second number if they exist. eg. **3-8/** disarms all existing record-tracks from track 3 to 8.

*Note: It is not possible to make a mono track record ready if it is designated as a stereo pair in the active mixer. i.e. If tracks 1+2 are assigned as a stereo pair in a mixer channel, it is not possible to record only on track 1 or track 2.*



It is not really important which tracks you use for recording, as you can easily select different tracks for the parts later.

*Note: If the recording fails (ie. if there is a power failure or PC crash, then the recorded Takes will be saved (see Troubleshooting chapter).*

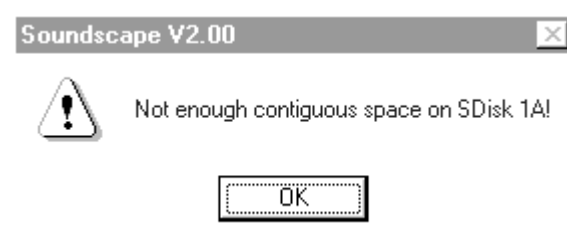
## Soundscape

- 5 Repeat this procedure for any other tracks you wish to record. Dragging the track numbers in the record column with the left mouse button allows for moving the virtual track position of existing record tracks.



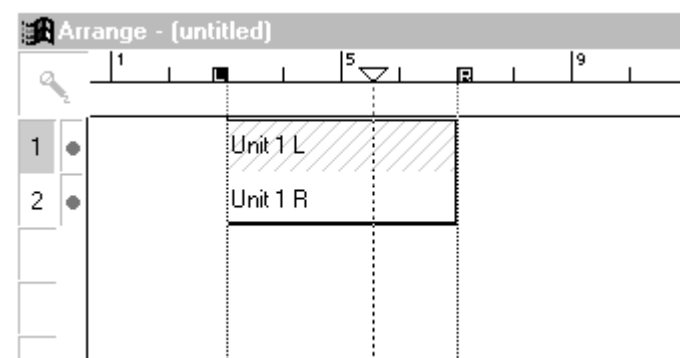
**Be very careful not to cause the input to clip while recording, as with all digital systems, this can result in very high distortion levels, especially for prolonged clipping.**

If there is not enough contiguous (continuous) disk space to record a take of the length defined by the locators, this warning box will be displayed.



If the range you have designated to record overlaps a part with the same output assignment, the overlap area of the active part will be muted.

- 6 Click on the **record button** on the tape transport window or press the “+” key on the keyboard to start recording.



- 7 If punch in/out buttons are pressed, Soundscape will drop into record mode at the left locator and will drop out of record mode and stop at the right locator. Otherwise, just press stop (**down arrow key**) to stop recording. The “**record status indicator**” will change from black to red whilst in record (both in the record column and the mixer). If you click on **stop** or press the “**down arrow**” key before right locator is reached, the recorded parts will be truncated to the play pointer position.

The default name of the recorded parts/takes is the same as the mixer channel that contains the track element. You can change the part and take names very easily later on if you wish. (See **Info tool** in **Editing Tools** chapter).



## Automated Punch-in Punch-out Recording Mode

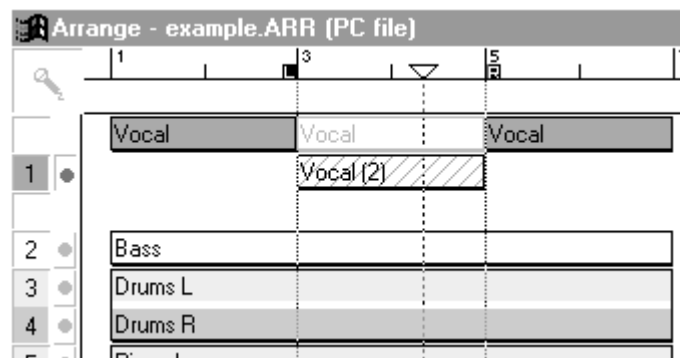
The automated punch-in recording mode allows new material to be recorded and inserted into existing parts in the arrangement. This is still non-destructive but the part is automatically replaced in the arrangement (*i.e.* audio is not overwritten on the disk).

To punch-in to an existing track, first position the locators. Assign the **record track** and position the play pointer before the "in" point. Upon pressing record cuts are made automatically in the existing part at the locator positions, even if the new part to be recorded is on a different virtual track. However, in this case, the existing part will be muted. If you decide not to keep the recording select **"Undo"** from the **Edit menu** (or **Ctrl+Z** from the keyboard) then any edits made will be 'cleaned up' so the arrangement is returned to the same state as before recording.

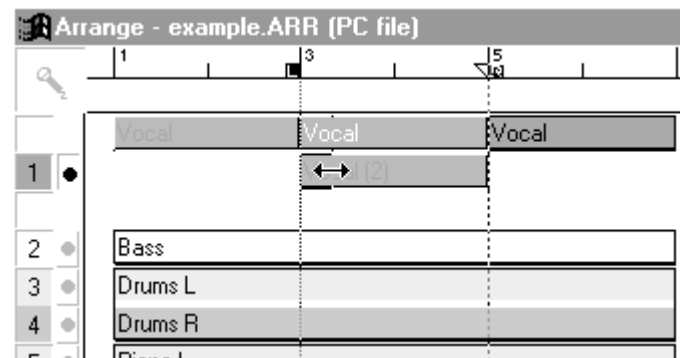
The existing audio is not removed, so even if the punch-in and out points (locator positions) were not defined accurately, the edit point can be adjusted easily later.

In the example below, a vocal part had been recorded on track 1, but it was necessary to re-record a section of it with a new vocal attempt. The locators were dropped in the rough area where the punch-in was required.

Recording on the virtual track below the existing part made edits in the original track and muted the punch-in area.



After recording, the **Trim tool** was used to more accurately position the punch-in and punch-out points.



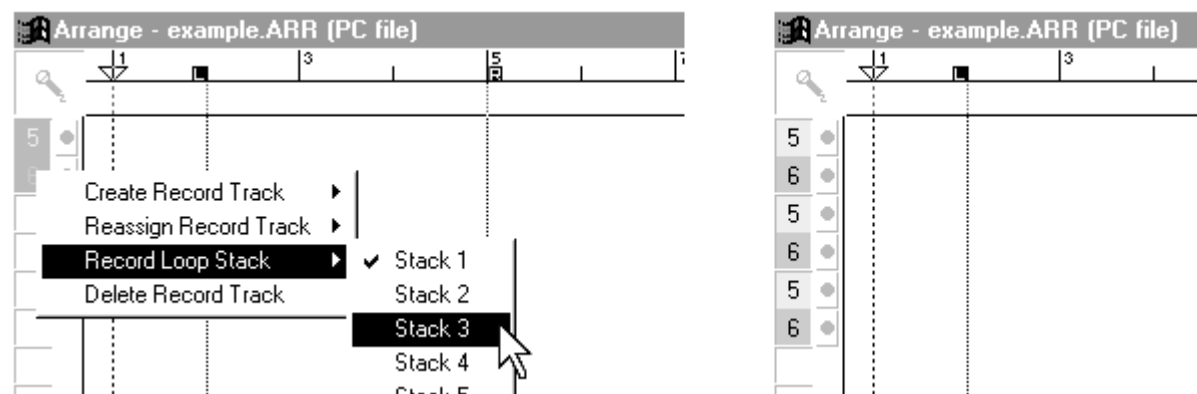
## Record Looping, Preroll and Stacked takes

The **Record Setup** dialogue box allows you to select a programmable pre/postroll for loop recording.

When a **Loop Stack** is created, instead of stopping at the right locator, Soundscape drops out of record mode and after a short delay (for Soundscape to clear its record buffers) it will start recording again at the left locator, overwriting the previous take. If you click on **stop** or press the “**down arrow key**” during the looping delay, the last take recorded is safe.

If **Preroll** is active and a timing value is entered for the **Preroll Length**, then the play pointer will play from a position set by the **Preroll Length**, before the left locator. This gives you time to prepare for the next recording attempt. Similarly, **Postroll Length** determines the time after dropping out of record at the right locator that Soundscape continues to play before returning to the Preroll position.

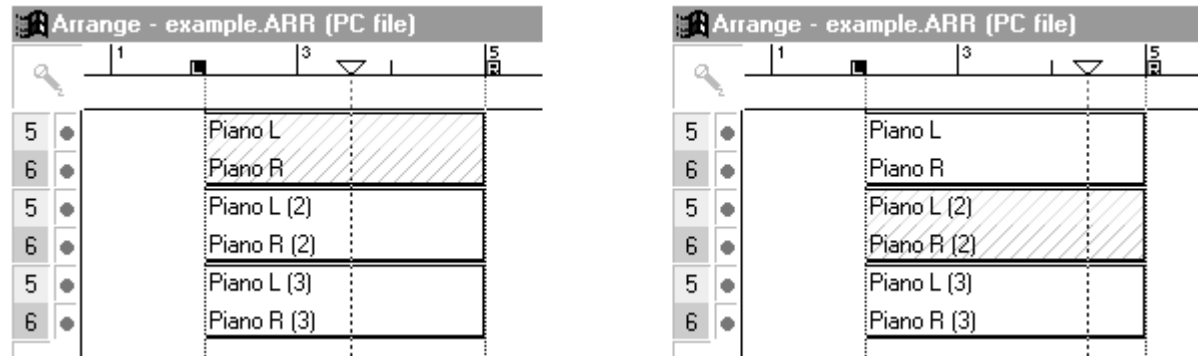
Selecting a value for **Loop Stack** allows recording of up to 9 takes per track, stacked on different virtual tracks down the arrange window.



*Note: The record loop stack in the record column will only be taken into account if the loop button is pressed.*

On each loop, the next virtual track is selected for recording, only overwriting a take when the last take in the stack has been recorded and the first is selected again (unless **Autostop at end of recording loop stack** is selected in **Record Setup**). This is a similar feature to that provided by analogue multi-track tape

machines, but with Soundscape there are 256 virtual tracks to use before you need to erase a take.



## Recording while Slaving to MIDI Timecode

In slave mode, Soundscape requires 2 seconds to chase lock to the incoming timecode. For this reason, when recording, make sure that you start the master device at least 2 seconds before the left locator position (punch-in), otherwise Soundscape will not start. Alternatively, press Play and then when the play locator starts moving, press the Record button.

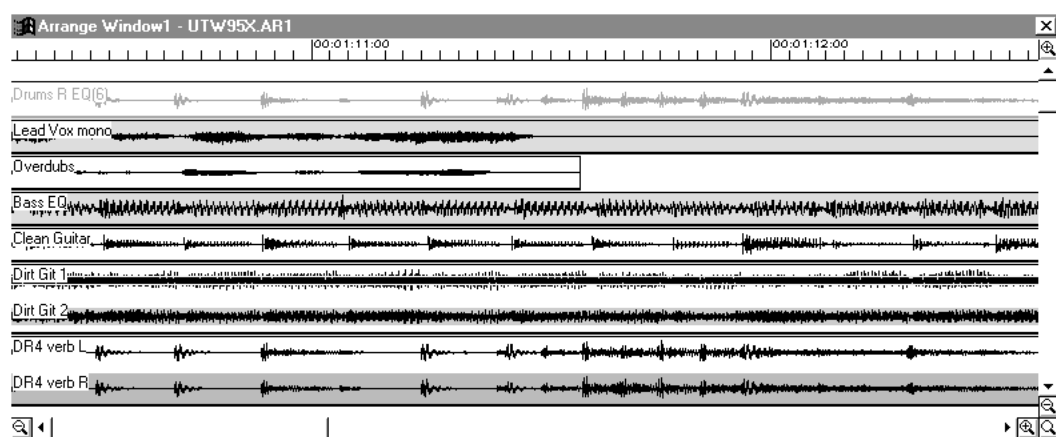
To record at 00:00:00:00 (or Bar 1, Beat 1) means that the incoming MIDI timecode must start at 23:59:58:00. It is easier to leave a short gap at the start, or use a predefined SMPTE offset (e.g. 1 hour).

*Note: Soundscape automatically defaults to the Analogue Inputs while in 'Slave' mode*



## Zoom In/Out

The Zoom In/Out buttons allow you to view the arrangement in more detail horizontally or vertically each time you click with the mouse. When the vertical and horizontal zoom levels are sufficient, the waveform for each part in the arrange window is displayed automatically as shown:-

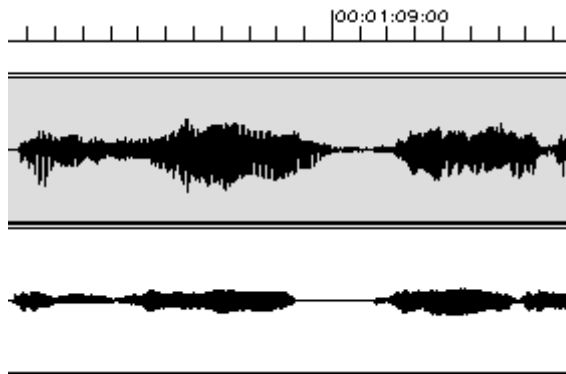


# Soundscape

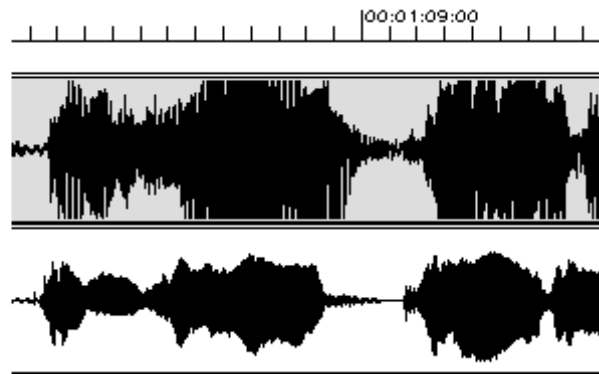
The highest horizontal zoom level displays an individual sample for each pixel across the screen. The time to read the waveform off the disk depends on how many parts are displayed.

Horizontal zooming in the arrange window keeps the position of the play locator in the same place on screen.

Vertical zooming is achieved by using the **right mouse button** on the zoom button. This allows you to edit very quiet sections without changing the levels.



► *Normal Wave Display*

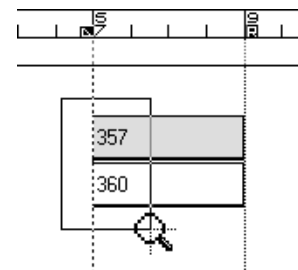


*Vertically Zoomed Wave Display*



## Zoom Box “Z” and “Shift Z”

Click once on the **Zoom Box** button to allow a selection box to be drawn in the arrange window (by holding down the left mouse button and dragging with the mouse). The arrange window will then show the selected area in more detail, with a waveform display if both horizontal and vertical zoom levels are sufficient.



Double click on the zoom box button to return to the previous display shown in the arrange window. Soundscape remembers the last 8 zoom levels, so that you can return to any of the zoom levels you have just been through. Double clicking on the zoom box will eventually return you to the default zoom setting.

## Time Axis Bar

The **Time Axis Bar** across the top of the arrange window can display the position in the arrangement either in bars, beats and ticks, or in SMPTE time, as hours, minutes, seconds and frames.

If you are working with a MIDI sequencer or with a musical measure, you will probably want to display bars and beats. The actual relationship between real time (which is really what digital recorders work in) and the time axis, is given by the combination of tempo, time signature and sample rate settings.

A SMPTE time axis display is more applicable when working with video, synchronising to external tape machines, or with material not based on a particular musical measure, such as speech or radio programmes.

The musical measures can be set for triplet mode (1/4T, 1/8T, 1/16T, 1/32T), and 0.5 sec, 1/10 frame and 1/100 frame are also included.

## Parts

Each **part** in the arrange window plays a digital audio **take** (stored on the SDisk) or any section of a take. Each part has individual start and end volume settings, and the start point in the take and the length can be set to sample accuracy. A take can be used any number of times by any number of different parts without using more SDisk space, as Soundscape makes full use of the random access capability of hard disks. Parts can be copied, moved, cut, glued together, merged, gated, processed or deleted without changing the original digital audio takes stored on disk.

### Selecting Multiple Parts

Multiple parts can be selected by pointing at an empty section of the arrange window (not on a part), clicking and holding the left or right mouse button and dragging the mouse so that a select box is drawn. Any part which is touched by the select box will be selected and will turn grey when the button is released. The window scrolls if you drag the box to any edge. With the **Shift (Shft) key** held, a box can be drawn when there is no empty space, so you can start the box on a part on screen.

With the exception of the merge tool, all other tools can be used to perform the same operation for multiple parts. This means for instance, that you can copy or move a group of parts, make a cut across several parts in the same position, set the volume for groups of parts (e.g. a complete track) or delete several parts at once.

You can also select or deselect multiple parts by holding the **Control (Ctrl) key** down on the keyboard while clicking on individual parts, so that you can add parts to a group from anywhere in the arrangement.

## Left and Right Locators

The **Left** and **Right Locators** are used to define the region for recording a take and record looping, or for mixing several parts to form a mixed take. The time between the locators is displayed on the **status bar** in the current display mode. This is very useful for calculating timings for the **time stretch option**.

### Setting the Locators “L” and “R”

To set the position of a locator, point at the required position in the time axis bar and click with the left button (for the left locator) or right button (for the right locator) on the mouse. The new locator position will take account of any snap

setting you have selected (see the **Settings menu** section for information on selecting the snap value).

“On the fly” positioning of the locators is possible by using the **L** and **R** keys (while in play mode). They can also be dragged along the time axis using the mouse buttons, and the mouse position readout can be used for accurate positioning.

Alternatively, you can double click on the locator readout in the tape transport window, and edit or select the timing position in the dialogue box. You can enter spaces instead of colons (:) and leading zeros are not required. The timing readout will be in bars, beats and ticks or in SMPTE timecode format depending upon the time axis setting.



Clicking once on either locator readout in the tape transport window will move the play pointer directly to either locator position.

## Play Pointer

The **Play Pointer** shows the current play position in the arrangement. The tape transport window has a readout in both bars/beats/ticks (Song Position) and SMPTE time formats.

The pointer can be positioned in several ways:-

- 1 By clicking and holding on the **Fast Forward** or **Rewind** buttons or by pressing the **left** or **right arrow keys** on the keyboard once, to move the play pointer left or right quickly.
- 2 By clicking with the left mouse button on any *empty* section of the arrange window, to move the play pointer to the mouse position (except between the locators when the *record* or *merge tools* are selected).
- 3 By clicking on the left or right locator readouts, to move the play pointer to the current locator position.
- 4 By clicking on the **stop** button or pressing the **down arrow key** on the keyboard. If in play mode, the first button operation or key press will stop Soundscape playing, then all subsequent operations will toggle the play pointer between the left locator position and the start (bar 1, beat 1).
- 5 By clicking on the **play** button or pressing the **up arrow key** on the keyboard once, to start playing from the current play position.

- 6 By double clicking on the **Song Position** or **SMPTE Time** readout in the tape transport window and entering or editing the value in the dialogue box, as for locators.



Pressing the **“C”** key on your keyboard moves the current position of the play locator to the centre of the **arrange window** and redraws the display. This works at any time even during playback.

## Tape Transport

The **Tape Transport Window** has all the normal controls that you would expect. The button functions are, from left to right: To Beginning, To End, Rewind, Fast Forward, Stop, Play and Record.



### Rewind and Fast Forward Buttons “Left and Right Arrows”

The **rewind** and **fast forward** buttons are only active while pressing on them with the left mouse button. The **left** and **right arrow buttons** on your keyboard also function as rewind and fast forward. There is an option for 'Fast Rew/FF' in the sub menu called **Preferences** under the **Settings** menu.

### Stop Button “Down Arrow”

If Soundscape is playing, click once on the **stop** button with the left mouse button to stop at the current play position. Once stopped, all subsequent operations of the stop button will toggle the play pointer between the left locator position and the start (bar 1, beat 1).

### Play Button “Up Arrow”

Click with the left mouse button on the **play** button to start playing from the current play pointer position and the pointer will move across the arrange window from left to right. When the end of the window is reached, the arrangement scrolls to the left and the pointer starts again at the left hand side.



Most editing functions can be used when playing or recording.

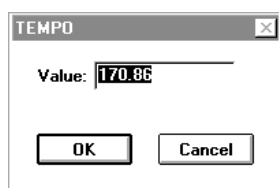
### Record Button “Add”

Clicking on the **record** button with the left mouse button also activates the play button. The play pointer will then either start playing from the current position, or if the current position is ahead of the left locator, the play pointer will jump back to the left locator. When the play pointer is at the left locator position, Soundscape will drop into record mode, record the take(s) and when the right locator position is reached, will automatically drop out of record mode and stop.

## Using the Keyboard to Control the Tape Transport

The left, right, down and up arrow keys, and the + key perform the rewind, fast forward, stop, play and record functions from the keyboard. The only difference to using the mouse is that pressing the left or right arrow key once, activates rewind or fast forward continuously, without you having to hold the key down. To release the rewind or fast forward buttons, press the 'up arrow' key to start playing, or the 'down arrow' key to stop.

## Tempo and Time Signature



The **Tempo** and **Time Signature (SIGN)** readouts can be set by double clicking with the left mouse button to bring up a dialogue box for either function. When setting the time signature, be sure to enter the / **key**. The tempo can be set to an accuracy of two decimal places e.g. 170.86 BPM

The tempo and time signature for Soundscape **do not perform the same function as for a MIDI sequencer**, as the digital audio cannot be altered in the same way as a MIDI sequence, where a passage can speed up or slow down by using a different tempo. In Soundscape, they are used to determine the time axis display and the snap 'grid', which is used when moving parts in the arrange window to bar, beat or 1/16th timings etc.

MIDI Clock and Song Position Pointer generation also depends on the tempo and time signature for calculation of the timing.

## Timing Resolution

The resolution is 192 ticks to the beat in bars/beats/ticks mode, and down to a 100th of a frame accuracy for SMPTE time mode.

However, several parameters may require sample accuracy, for example, when defining the length or position of a part in the arrangement, or where an edit is made. These parameters will be displayed in SMPTE time, but with a sample extension which defines the sample position within each frame.

The complete format is:- **hours:minutes:seconds:frames:samples**

The actual number of samples within each frame depends upon the sample rate and SMPTE frame rate selected.

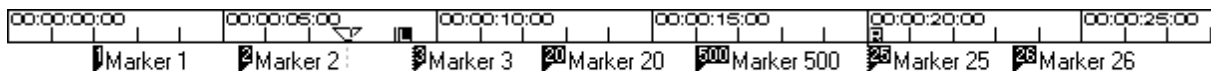
The table shown below gives the number of samples in each frame for each of the standard sample rate and SMPTE frame rate settings. Where the value given is not a full number of samples per frame, the number will be averaged over a number of frames, so that there will always be a full number of actual samples each frame.



Number of Samples Per Frame						
Sample Rate	24fps	25fps	29.97fps	29.97df	30fps	30df
22.05kHz	918.75	882	735.74	735.74	735	735
32.00kHz	1333.33	1280	1067.74	1067.74	1066.66	1066.66
44056kHz	1835.66	1762.24	1470	1470	1468.53	1468.53
44.10kHz	1837.5	1764	1471.47	1471.47	1470	1470
47952kHz	1998	1918.08	1600	1600	1598.4	1598.4
48kHz	2000	1920	1601.6	1601.6	1600	1600

## Markers

The **Marker Bar** runs under the time axis in the arrange window and can be turned on or off under the **View** menu.



You can have up to **999** named markers per arrangement, and these are saved in the arrange file.

## Marker Directory “W”

The **Marker Directory** window can be turned on under the **View** menu or by pressing the **W** key. This shows a text listing of markers, their names and locations in SMPTE or Bars, counts and ticks.

ID	Name	Loc(SMPTE)	Loc(B/C/T)
1	Theme Music	10:00:00:00	0001.01.000
2	Dialogue "This is the..."	10:00:45:13	0023.04.007
3	SFX - footsteps on gravel	10:00:47:04	0024.03.061
4	Buzz Track - water ambience	10:00:50:23	0026.02.161
5	Dialogue - "Look Out!"	10:00:56:08	0029.01.122
6	Cue - Orchestral music cue 1	10:00:56:14	0029.02.023
7	10:01:03:12	10:01:03:12	0032.03.184
8	10:01:04:11	10:01:04:11	0033.01.168

## Inserting Markers

Markers can be inserted ‘**on the fly**’ at the current play position by pressing the **Insert** key. Each time a marker is inserted, the marker ID number is automatically incremented, but at any time you can type an ID from 1 to 999 before pressing insert, to place markers starting at a new ID. This makes it easy to identify different sections of an arrangement with the markers (e.g. 100-199, 200-299 etc.).



It is possible to edit a marker name while in record and playback modes. Therefore, as soon as you drop markers, names can be added for easy identification.

### **Moving Markers**

To move an existing marker to the current play position, enter the marker ID and press the **Enter key**. Pressing **Enter** again will then move the *next* marker in turn to the current play position and this can continue until the last marker is moved.

You can use the mouse to drag a marker to a new position by clicking with the left button just to the right of the marker to select it. The snap setting will also determine available marker positions when dragging with the mouse.

In the **Marker Directory**, double click on the marker entry with the left mouse button to pop up a '**Marker Info**' dialogue box where you can edit the marker location in SMPTE or bars, beats and ticks format.

### **Moving L & R Locators to Marker Locations**

To move the L or R locator to a marker location, type in the marker ID, then press the **L** or **R key**. This can be performed while playing the arrangement.

### **Moving the Play Pointer to Marker Locations**

To move the play pointer to a marker location, type in the marker ID, then press the **down arrow key** or click on the **stop button** in the transport window. This can be performed while playing the arrangement.

Click with the right mouse button to the right of a marker in the **Marker Bar** to move the play pointer to the marker location.

In the **Marker Directory**, click on the marker entry with the right mouse button to move the play pointer directly to the marker location.

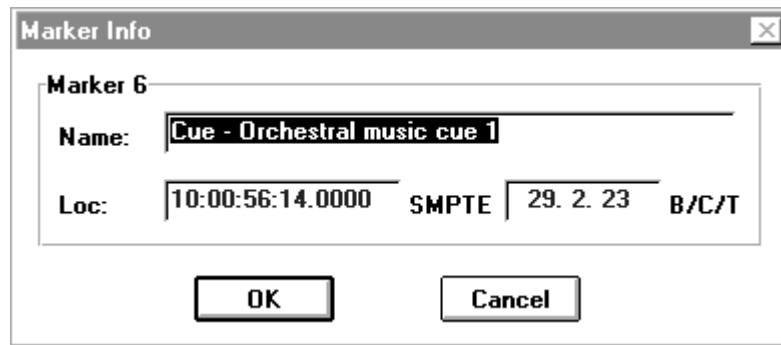
### **Playing from a Marker Location**

To start playing from a marker location, type in the marker ID and press the **Up Arrow key** or click on the **play** button in the **Transport** window.

### **Naming a Marker**

In the **Marker Directory**, double click on the marker entry with the left mouse button to pop up a '**Marker Info**' dialogue box.

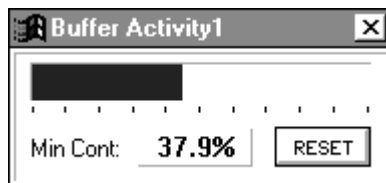
You can enter a marker name up to 30 characters in length.



## Deleting Markers in the Marker Directory

To delete a marker from the Marker Directory, click on an entry with either mouse button to select it, then press the **Delete** key. Multiple deletes may be made with one key press using the **Ctrl** and **Shift** keys, as described earlier for 'Deleting takes in the SFile Manager'.

## Buffer Activity Window "B"



The Buffer Activity window is displayed by pressing the **B** key on the PC keyboard or by selecting it from the View menu.

The buffer activity window provides an indication of how much digital audio data is in Soundscape's internal buffer memory at any instant. The buffer is continuously refilled, as data is read in bursts from the hard drive for each track. The digital audio is then played out directly from the buffer at the selected sample rate.

The figure displayed shows the lowest percentage of data in the buffers that has been detected for all audio tracks, and the bar display is the current minimum level. Pressing the **reset** button clears the minimum level and restarts at 100%.



**For Soundscape to maintain correct audio timing for all tracks, it is important that the amount of data in the buffer memory never falls to zero, and it is the DSP's task to try to ensure that this does not occur.**

However, functions such as the real-time fades require some of the available DSP processing power, and there are several other factors that can influence the ability of the DSP to keep the buffers filled. The most important of these are:-

number of real-time fades active at the same time

## Soundscape

the sample rate selected

number of active tracks being played

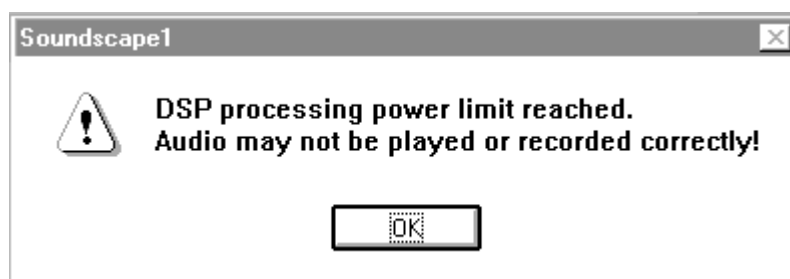
position of the audio takes on the drive

speed of the hard drive (access time, data rate)

size and number of parts in the arrangement

With a slow (e.g. 18mS) hard drive, the minimum buffer level detected will obviously be less than for a faster drive.

If the level of fragmentation becomes high enough so that one of the track buffers is not refilled quickly enough, the following warning box will be displayed:-



This may seem quite serious at first, but in fact there are several very easy ways to remedy the situation.

Reduce the amount of work that the disk head is asked to perform, by mixing down some of your edits on one track to form a new take. (see **Mixdown Tool** in the **Editing Tools** chapter)

Reduce the number of real-time fades by merging to a new take which includes the fade.

Use a lower sample rate (e.g. 44.1kHz instead of 48kHz).

Buy a faster hard drive (10mS - 13mS is now the standard speed even for low cost drives).

The last option is obviously not the best, but if you are considering buying a second (probably bigger) drive mechanism for Soundscape, you should buy the fastest one that you can obtain as this will also be an advantage with some of the planned new features. Most higher capacity hard drives are inherently faster than the smaller drives which generally use older technology.