

Using Soundtrack Pro 3 (v.03 – updated 18 November 2010)

You cannot use this system without training and a username.

These notes are designed to remind you what you were shown in training.

Studio layout

The equipment rack contains the amplifier, headphone amplifier, CD player and cassette deck. The USB mixing desk connects audio signals from all equipment together with the Mac. The desk is connected to the Mac via a USB data cable.

Introduction

Soundtrack Pro provides a tremendously powerful set of tools for audio recording and editing. What's described on this sheet is a tiny proportion of the available functions.

Download the manual from the Apple website and enjoy!

Getting to know the Mac

If you're new to the world of Mac, please take some time to look at <http://www.apple.com/support/mac101/>. This set of tutorials will have you up and running in no time.

If you're a seasoned Windows user, the Switch 101 website may be more suitable:

<http://www.apple.com/support/switch101/>

Getting started

- **Turn on USB mixing desk first** (power switch is at the back on the right)
- Turn on iMac (power switch at the rear left)
- Turn down volume on amp, turn it on, raise volume.
- Log in with your allocated username and password [NOT your University username].
ALL OF YOUR WORK IS SAVED ON THE SERVER, SO YOU CAN ACCESS IT FROM EITHER SOUND STUDIO, or the Multimedia Studio.
- Open **Soundtrack Pro** from dock at bottom of screen
- A blank project will be opened up, ready for you to record.
- **SAVE THE PROJECT** before you start work. Save it in your HOME directory, under DOCUMENTS.
- You can show / hide the different work areas of the display by clicking on Left Pane, Lower Pane and Right Pane on the top right of the window.

Your user area on the server

All of your files (audio, project files etc.) should be saved in your 'Home' directory. Every 'save' menu will have a link to your home directory on the server – please ensure you keep your work tidily in there.

NB: Do not move any files around once you've started work on a project as you may lose some of the files from the project.

At the end of your project, please backup your files onto a memory stick or portable hard drive, as we cannot store your files for more than one year.

Mac Crash

- In the unlikely event that the Mac crashes or doesn't respond, **do NOT try to solve it by turning the machine off**. This may cause loss of your data (and that of your colleagues). Please contact technical staff for assistance, or go to the Apple Menu and choose Force Quit. This will allow you to safely close the application. However, any work you created since your last save may not be saved.
- All audio material you record is automatically saved in the RECORDINGS folder within your Soundtrack Pro Documents folder ([your Username] / Documents / Soundtrack Pro Documents / Recordings) so you can recover files recorded even after a major crash.
- **Please report any / all problems with the system to technical staff immediately.**

The Mixing Desk

Inputs to the mixer:

After switching the channel ON, the REC button selects if the channel will be sent to the iMac. The ST button sends the input straight to the amplifier in the studio, via the red fader at the end of the desk.

Recording – Monitoring

You can listen back to what's being recorded in Soundtrack Pro (rather than listening direct to what is coming into the desk) using the Monitor function on Soundtrack Pro.

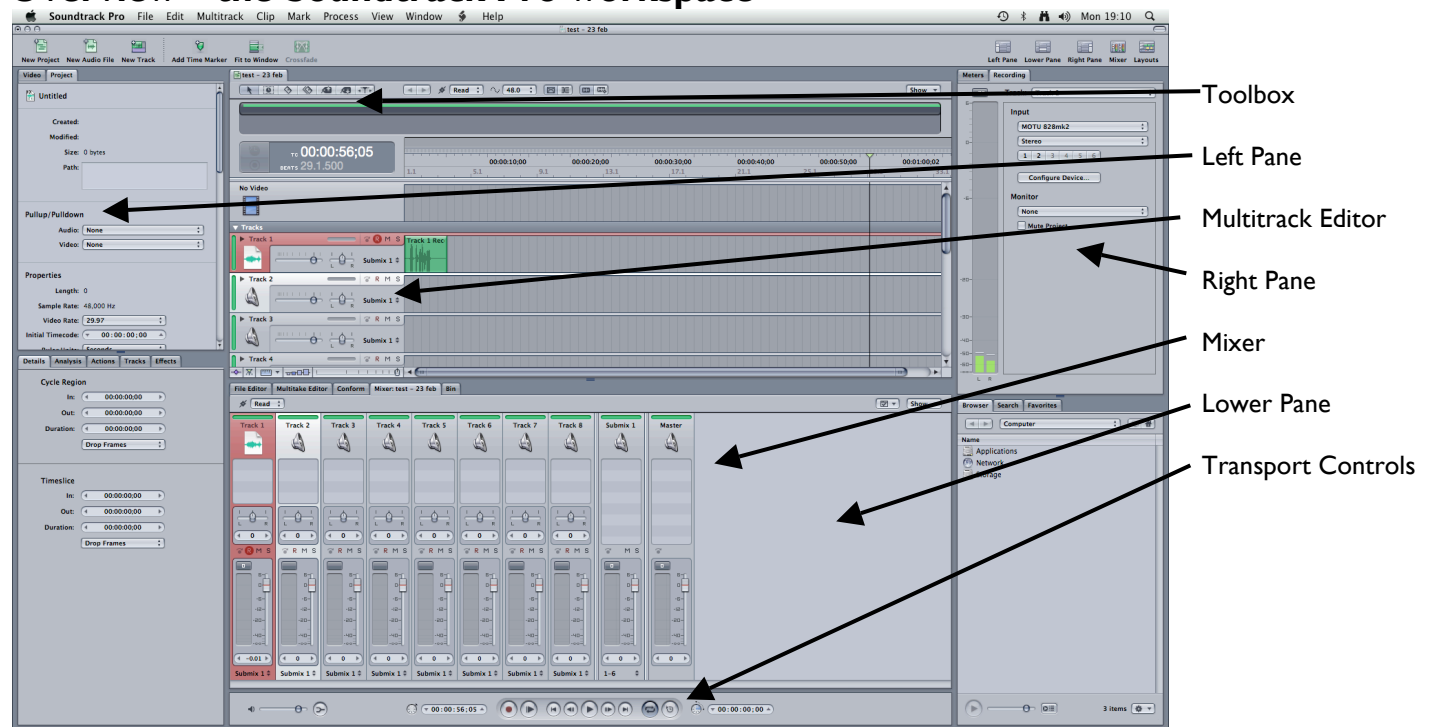
From the Mac:

To hear the sound played from the iMac:

Amplifier switched on. Red TO AMP fader raised and '2 TR IN switched UP to select 'TO STEREO'.

In this position, the PHONES control knob adjusts the volume to the headphones plugged into the mixer, and the MONITOR knob adjusts the volume to the headphone amplifier.

Overview – the Soundtrack Pro workspace



Recording

Setup the Software

Ensure you follow all of these steps. Steps 1-7 are on the iMac in Soundtrack Pro.

1) **Highlight the track** you want to record onto

2) **On the Right Pane 'Recording' tab, select the Input**

Choose USB Audio Codec - This is the mixing desk / sound interface– if this isn't here, ensure the mixing desk is switched on, then restart the iMac. If you still have problems, see Tech staff.

3) Set the **type** of recording - **Mono** if you're recording from a mic or instrument, **Stereo** for music / sound effects.

4) Set your **monitor** requirements.

Set to **None** if you don't want to hear the recording through the speakers as it's happening.

Set it to **USB Audio Codec** to monitor through the speakers..

5) **Name the track** (click on the Track 1 text, and change it, for example, to Voice 1).

6) **Arm the track** for recording using the R button.

[**R** = Arm for Recording, **M** = Mute, **S** = Solo (silence other tracks)]

7) Finally, set the **Output** for Submix 1 to be Stereo then 1,2 (base of Submix 1 'channel' on Soundtrack Pro Mixer).

Setup the Mixing Desk

Switch the fader ON (clear button at the top of the fader)

Press the grey REC button (this sends the signal to the Mac for recording)

Lift the Dark Grey Master (labelled 'TO MAC') to 0db
Lift the Red Master (labelled 'TO AMP') to 0db.

Check that the microphone level is registering on the software input monitor.

Recording levels – microphones

- Be careful when recording that you stay below 0db on the meter on the Recording tab in the right pane. Anything above 0dB will distort. Always do a test recording to ensure your voice actor stays within the limits. The ideal range is between -6db and -3db.
- To adjust the level of the microphone, use the **GAIN** control at the top of the mixer channel.
- Use the **POP SHIELD** to stop breath noise and 'popping' from ruining a recording.

Saving collected files

Before making your first recording, it's good practice to **SAVE** your project.

On the Soundtrack Pro menu bar choose File / Save As.

Select the **Collect Audio Files** checkbox. This ensures that all sound files relating to your project are saved tidily in the project folder.

Deselect the Collect Unused Audio Files checkbox.

Navigate to your HOME DIRECTORY, then enter the DOCUMENTS directory, then click on NEW FOLDER button, give your project folder a name, and click on CREATE. In the Save As dialog box, click the SAVE button.

Once you've done this, click FILE> **SAVE(COLLECTED)** periodically to minimise lost time if the computer crashes.

Punch Recording

You can replace an existing recording (or record a new section) by punching in to an existing recording.

Click on the track where you want the new recording to go (this doesn't have to be a new track) and press the R button to arm it for recording. Start playback, then when you want to 'punch-in' the new recording, press the RECORD button. Press RECORD again to 'punch-out' (ie. Stop recording).

Playing back audio

- Change the right pane to Playback Metering by clicking on the Meters tab.
- Use SPACE bar to play / stop. Move the playhead (thin vertical line with a green triangle at the top) by dragging under the time bar at the top of the arrange window.
- You can also use J K L keys to control playback. (J = play in reverse, K = stop, L = play normally). Pressing J and L again plays at double speed in that direction.
- You can use the **Scrub** tool to play back only the audio under the play head. Press H on the keyboard to select Scrub tool, or choose it from the toolbar top left. To get the **arrow** tool back, press A on the keyboard or select it from the toolbar.
- Press M to drop a marker, to help you identify problem areas. Click on the Marker and press DELETE on the keyboard to remove it.

Changing your view of the tracks

Use the zoom control at the bottom of the multitrack editor window. Use the pointer to stretch horizontally (you can also do this using the scroll bar). The track height bars next to the pointer zoom vertically.

The Track Header

This is the area just to the left of the waveform display in Multitrack Editor view.

The **Volume** and **Pan** controls can be adjusted (which will affect the whole track). To reset the faders to their default position, double click them.

To adjust the volume and pan controls over time, use **envelopes**. Click on the arrow to the left of the track name.

The purple area shows the current volume and pan positions as a line. Double click on the line to insert an edit point, and drag that edit point. (The start of the track has an edit point too – this enables you to affect the whole track).

Mute (M) silences this track, but allows the rest to play. **Solo (S)** will silence everything except this track.

You've already used the **Arm for Recording I** button.

Adding Tracks

Click on the Multitrack menu, then Add Track to add a track.

CTRL-Click on the track header to open a submenu allowing you to add tracks before or after the current one, and to colour-code the tracks.

Working with samples

To move a sample around the timeline, simply click on it with the arrow tool and drag it.

To select multiple recordings (either on different tracks or different parts of the same track), use Shift-Click.

By double-clicking a sample in the Multitrack editor, you can edit it. Zoom in and out using the slider at the bottom of the sample. Press Shift-Z to fit the sample to the screen. Command = (command plus equals) zooms in, and Command – (command minus) zooms out.

The Global Waveform View at the top of the screen shows you an overview of the whole sample. When you're zoomed in, you can drag to change the part of the sample you want to see.

(If you need to get rid of a click or pop, you can zoom in to sample level, and pick up the pencil tool to redraw individual samples – you're adjusting the volume of the sample, not the frequency).

Once you have a sample open for editing, you can drag the playhead forwards and backwards (on the time bar) to 'scrub' through the sample.

Editing

In Multitrack Editor

Trim the ends of a sample: with the arrow tool (A), select the track, then drag the end of the track to resize the clip. This is useful for removing silence at the start or end of a track.

Snapping: The default setting for Soundtrack Pro is to have **snap** enabled. Turn it off using the green alien symbol at the bottom left of the workspace, or by choosing View / Snap (or press N). This allows much more accuracy with your edits.

Cutting a track: Use the blade tool (B) to cut a track, then the arrow tool (A) to move it around, or delete key to delete it. OR you can use the Timeslice tool (W) to select a portion of an existing recording, then delete it.

Using the File Editor tab

With a recording selected in Multitrack Editor, click on the **File Editor** tab in the lower pane. This is the same functionality you can access by double clicking on a recording.

Stretching audio: Use the Audio Stretching tool (T) to drag a selection range over the audio you want to stretch. Position the tool over the right edge of the selected area (there's a purple line there) and drag left or right to stretch or squeeze the audio.

Fading – adjusting volume

As you've already seen, you can adjust the overall volume of a track using the control in the track header.

Reducing the volume of part of a recording: In the File Editor tab, use the arrow tool to select a section of audio. Choose Process > Adjust amplitude from the menu bar.

Adding transitions: Using the arrow tool, hover over the top part of the left or right edge of a recording until you get the envelope symbol. Drag towards the centre of the sound file to get a fade in or out. Double click on the fade to open up the Fade Selector.

Crossfades: With two recordings on the same track, simply drag one of them onto the end of the other – a crossfade will automatically be created.

Working with Actions

Because Soundtrack Pro is a non-destructive editor, it keeps the original recordings safe, and applies actions to them to make the changes you require. Any of these actions can be undone by clicking on the Actions tab on the left pane. Any of the Actions can be unticked, or CTRL-Click on the Action to open a submenu to delete the Action permanently.

Keyboard shortcuts

| | |
|-----------|---------------------------------------|
| A | Arrow tool |
| B | Blade tool |
| H | Scrub tool |
| J | Play in reverse |
| K | Stop |
| L | Play forward |
| T | Audio Stretching tool |
| Command-T | Add track |
| W | Timeslice tool |
| CTRL-Z | Undo |
| Shift-Z | Fit to screen (in sample editor mode) |

Frequency Spectrum View

Double click on a recording on a particular track to open it in File Editor view. On the upper right of the window, click on the Frequency Spectrum View button. The waveform view changes to the Frequency Spectrum view. The X axis shows time, and the Y axis shows frequency. The colours shown on the graph show the amplitude or volume of the frequencies in that part of the spectrum. Deep blue is zero amplitude (silence) and bright red means full amplitude (0dB).

Because the human ear responds in a non-linear way to sound, you can make the view reflect the range of your hearing by CTRL-Clicking on the scale on the left and choosing **logarithmic**.

CTRL-Click on the Spectrum view and click Show Spectrum Controls.

To remove part of the frequency spectrum from your recording, click on the Frequency tool top left of the window, click and drag to create an area around it, press backspace to delete.

Adding audio effects to a track

Select the track on which to add the effect. Click on the Effects tab in the Left Pane.

Choose the effect to use. Click on the + to add the effect. Modify the effect as necessary. Use the main Multitrack Editor transport controls to play the effect to preview it.

Set up a Cycle Region by clicking and dragging just below the time markers – this allows you to repeatedly hear the same section over and over.

Adding audio effects to a sample (or part of a sample)

Select the audio you want to work on in the Multitrack Editor. Click on the File Editor tab. Using the arrow tool, select the part of the audio to put the effect on. Click on Process > Effects to choose the effect you want. Most effect dialog boxes have a **Play** button – use this to preview the effect. When you're happy, press **Apply**.

Adding Music from CD

Insert CD in the CD slot on the right side of the iMac screen. Double click on the CD when it mounts on the Desktop (press F11 to reveal the Desktop).

Open your Documents folder and drag the track(s) you want into it from the CD.

Back in Soundtrack Pro, open the Documents folder using the Browser in the Right Pane and drag the music onto your desired track.

Adding Music from iPod (or other MP3 device)

There's an iPod cable connected to inputs 11&12 on the USB Mixing Desk. Connect your iPod (you may need to remove the case of the iPod / iPhone). Lift the 11/12 fader on the USB mixing desk. Turn the fader ON and select the grey REC button on that fader. Record onto a track after selecting Stereo on the Recording tab and changing the input to USB Audio Codec.

Setting Levels – Soundtrack Pro Mixer

The Mixer is in the Lower Pane.

Adjust volume as necessary. (This is the same as using the volume control in the Track Header).

You can use **Submixes** to provide master control for a section of the recording (e.g. Music, Voice, Effect are on 3 separate submixes). To add a new Submix, click on Multitrack > Add Submix, then rename. Choose which Submix your track is going through at the bottom of the Mixer panel or on the Track Header for that track.

Using Automation to Change Levels through the recording – Mixer

Click on the "Read" button on the top bar of the mixer. Change this to **LATCH**. When you play your track, any adjustments you make to faders (or pan control, or effects controls etc. etc.) will be memorised. Change LATCH back to **READ** to play back your changes.

Output

The routing of each track to output can be selected on each track (click on Submix).

1,2 = Speakers, 3,4=Minidisk Recorder, 5,6=Headphones

[TO BE CORRECTED]

Sound effects – iTunes collection (almost 5,000 effects)

(First time – setup effects on your user account)

- Click on USER ACCOUNT icon at right end of dock. Enter your password.
- Open iTunes. Click on iTunes menu and iTunes preferences. Click Advanced tab.
- Untick 'Copy files to iTunes Media Folder'. Click OK
- Click on Sound Effects folder which should be open on the desktop.
- Select all by pressing Apple-A. Drag all to the iTunes window.
- When that's done, click Hide Sidebar at the right side of the screen.

Normal use

- Open iTunes. Change the View to 'View As List'. Find the effect you want (use iTunes search box).
- (The effects are stored on a server away from the studios – if you discover an effect is missing or you can't play the effects, see a member of technical staff)
- Press F11 to clear the screen – open the Storage drive, browse to your home directory, then Documents.
- Press F9 to show all open programs at once – click to switch between them.
- Drag the sound effect from iTunes into your Documents directory.

To insert the sound effect into the project

- Click on the track you want the effect to appear on.
- Use the browser (right pane) to browse to your Documents directory on the Storage drive.
- Drag the effect from the browser to the correct place in the Multitrack Editor window.

Sound effects / atmospheres – Soundtrack Pro collection

Use the Search tab at the bottom of the Right Pane to find an effect. (NB: There are many 6 channel surround effects which you can't use in your stereo project, so avoid them!). Drag the effect you want onto the Multitrack Editor window.

Using headphone system [TO BE CORRECTED]

The studio headphone system can be used to control what the engineer and performer hear. A whole track (or number of tracks) can be sent to the studio headphone system by changing the output from Speakers to Headset. If you want to keep the track coming through the speakers AND send it to the headphone system, you need to use the Bus system.

Using Buses [TO BE CORRECTED]

These are the equivalent of Aux Sends on a traditional mixing desk – they provide an alternative route for sound to leave the computer before it's output (to, for example, the headphone amplifier).

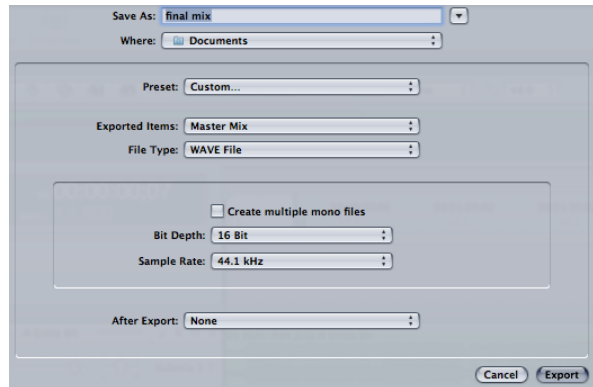
- 1) **Add the connection to the headphone amp.** This will be another **Submix** output from Soundtrack Pro. Click Multitrack > Add Submix. Name it Headphones. Click at the bottom and change the output to Stereo / 5-6 (SS1) or 7-8 (SS2)).
- 2) **Add a connection to this output from the inputs.** This will be a **Bus**. Click on Multitrack > Add Bus. You'll see this appear at the bottom of the track listing in the Multitrack editor window. Name the Bus "Headphone Send".
- 3) **Connect the track to the Bus.** On the mixer in the Lower Pane, CTRL-Click in the effects area above the pan control of the track you want to send to headphones, click Add Send > Headphone Send. This sets up a connection between the track and the Bus.

Click at the bottom of the Headphone Send bus, and set the output to Headphones (i.e. your new submix).

As well as coming through Submix 1 to the main output, your track will now go to the headphone amplifier too. To adjust the level of sound going to the Headphones, CTRL-Click on the Headphones text on your track on the Mixer, and click on Show Send Settings.

Mixing Down

- If you've used any sound effects from within Soundtrack Pro, it's likely you've used some which are 6 channel (surround sound) effects. If you have any 6 channel audio, you **MUST** set the Submix 1 channel on the Mixer in the lower pane to 1,2 (see right). Do this by clicking where it currently says 1,6 and select Stereo, then 1-2. This ensures your work will be mixed down to two-channel stereo.
- Soundtrack Pro only allows you to export the whole of your timeline – ensure any unwanted tracks are muted, and if possible move the start of your project (CMD A to select all) to the far left of the screen (where the mixdown file will begin).
- Click on File > Export
 - In the resulting Export window, enter a name for the file at the top, and click on your Home icon to save it there.
 - Exported Items: **Master Mix**
 - File Type: **WAVE** File
 - Bit Depth: **16 bit**
 - Sample Rate: **44.1 kHz**
 - After Export: **None**
 - Click Export. Your file will be mixed down & saved in your Home directory.



Burning to CD

(Before burning to a CD you need to have mixed your file down as above.)

- Open **Toast** from the dock.
- Click Audio tab at the top (second block)
- Drag your file(s) onto the Toast window.
- **[TO BE CORRECTED]** - Use the controls in Toast to trim any unwanted silence at the start or end of your track.
- Insert a blank CD-R (not a CD-RW – these disks will not work in most CD players)
- Click red button. The CD will be ejected once complete (be sure to close the CD tray afterwards using the eject button top right of the keyboard).
- Check the CD on a CD player **BEFORE** submitting it!

Screenshot of your project

This should be printed out and submitted as part of your reflective commentary, proving that you did the work here in the studio.

- Arrange the screen layout to show as much of your project as possible.
- Press COMMAND-SHIFT-3 to save the screen shot to the Desktop of the Mac.
- Either insert a memory stick and save the file to it, or email the file to yourself by opening Safari (web browser).

When you leave

- Turn the amplifier levels down and switch it off
- **Shut down** the Mac (File / Quit Soundtrack Pro, then click on the Apple menu and Shut Down)
- Turn off the mixer
- Turn off the studio power sockets
- Turn off the extract fan (sound studio 1 only) or close the window (sound studio 2 only)
- Please remove your litter
- Please do not remove anything from the studio at any time under any circumstances.
- Microphones and audio cables can be booked out from the technical office – do not remove anything from this studio.

Problems:

- **iTunes asks for a password when I start it up.**
Click on View / Hide Mini Store. This should stop the password request.
- **Sound is playing through the Mac speaker, not the main amplifier.**
Click on the Apple logo (top left of screen). Click System Preferences. Click Sound. Click Output at top. Click on USB Audio Codec. Click red button to close the window. Close Preferences window.

Further information

<http://www.apple.com/soundtrackpro/>