

DORKING AND DISTRICT TALKING NEWSPAPER

Guidance Notes – Recorders

Issue 6.0: Revised December 2023 - **Please destroy all previous editions.**

The Recorder's job is twofold:

- To operate the equipment recording the Readers.

Setting up the recording equipment.

Inserting track markers at the beginning and end of the recordings and when readers change. This is to allow the listeners to move between items when required.

Saving the files, splitting them into separate tracks and converting them to .mp3 format.

- To represent the Listener and ensure the quality of the recording.

This means dealing with any mistakes/problems which occur in the recording session.

Ensuring that the audio level from the microphones match, i.e. that one reader is not too loud or soft against the others.


Listening to what the readers say to eliminate silly errors i.e. the wrong date, forgetting to trail the magazine etc.

Note: In this document [click] is used to indicate where a single LH mouse button click is used to select an item and [open] is used where a double (fast) click is required.

1. Arrive at the URC at 6.15pm to meet the readers. Access to the building is by keypad lock: you will be sent the current key code separately. The recorder has keys to unlock the URC Upper Room to let in the other members of the team, and the keys to the equipment cupboard and padlock. There is a key safe on the back of the Upper Room door containing the Yale key. The combination is the same as for the outside door.
2. Ensure the "Quiet Please" notice is placed on the stairs and clearly visible.
3. Take the laptop out of its protective cover and set out the mixer and laptop on the desk. The laptop is the recording machine (**PC**).
4. Take the table lamp from the cupboard and place it on the table.
5. The USB lead connecting the **MIXER** and **PC** should have been left connected to the mixer. The connections are as follows:

MIXER "USB" socket connects to **PC** front USB socket, towards the front of the LH side of the laptop. (**IMPORTANT:** Do this **before** switching on the laptop as without this connection the laptop can default to its internal sound card.)

USB mouse into the **PC** USB socket toward the front on the RH side of the laptop.

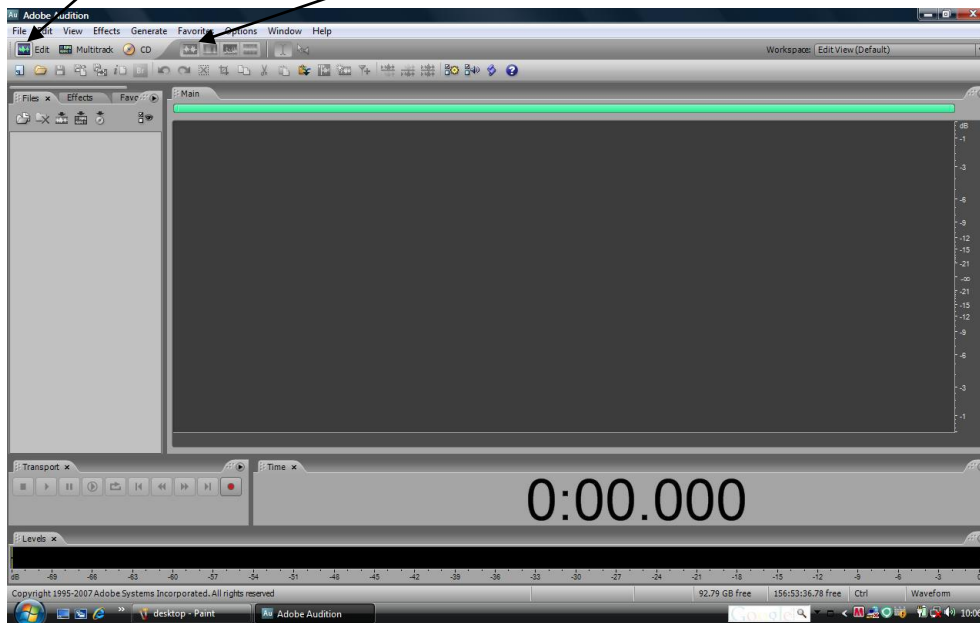
Note: The USB plugs have the  symbol on them. This should be uppermost.

6. Plug the laptop power supply into the laptop. The socket is on the RH side towards the back. A light next to the socket will light when the power is applied, **WHITE** if the laptop battery is charged, **RED** if it is charging.
7. Plug all the equipment in to the mains via the four-way mains block and connect it to a 13A mains outlet.
8. Switch on the mixer. The mixer POWER ON switch is on the rear panel. An AMBER lamp above the headphone level control will light. The PHANTOM ON switch, next to the POWER ON switch, with a RED +48V lamp, should be left OFF.
9. Plug your headphones into the mixer “PHONES” socket and press the SOURCE: MAIN MIX to listen to the mixer output. Check that the other SOURCE buttons, 2-TR/USB and ALT 3-4, are NOT pressed.
10. Check the **Mixer** controls (see “New Mixer Controls – Sept 2016” drawing):
 - The TRIM controls (black cap) fully clockwise.
 - The COMP controls (light blue caps) fully anticlockwise ‘0’ position.
 - The EQ controls (HIGH, MID, LOW dark blue caps) in the mid ‘0’ position.
 - The AUX controls (red and orange caps) fully anticlockwise $-\infty$ position.
 - The channel “PAN/BAL”(black cap) in the mid “ \times ” position.
 - Open the “MAIN MIX” faders to ‘0’.
 - Check the channel mute switches are not pressed. A MUTE indicator lamp will be lit if any are depressed.
 - The 2-TR/USB to Main is NOT depressed. There is no indicator for this button and, if pressed, it will cut the mixer output to the PC.
11. Set up the **PC** (Recording Machine)
 - Open the screen of the laptop.
 - Switch on using the power button above the keyboard (above F2/F3 keys). The WHITE lamp in the button will light. Lamps at the front of the LH side will flash to show the laptop is working. It will take a few minutes for the PC to “boot up” fully.
 - Locate the “Adobe Audition 3” icon on the desktop.



- [Open] by using the mouse to move the pointer (\uparrow) over the icon and clicking the left hand mouse button twice (quickly). This will open the Adobe Audition recording window. **Note:** A small hourglass will appear to show the PC is opening the program.

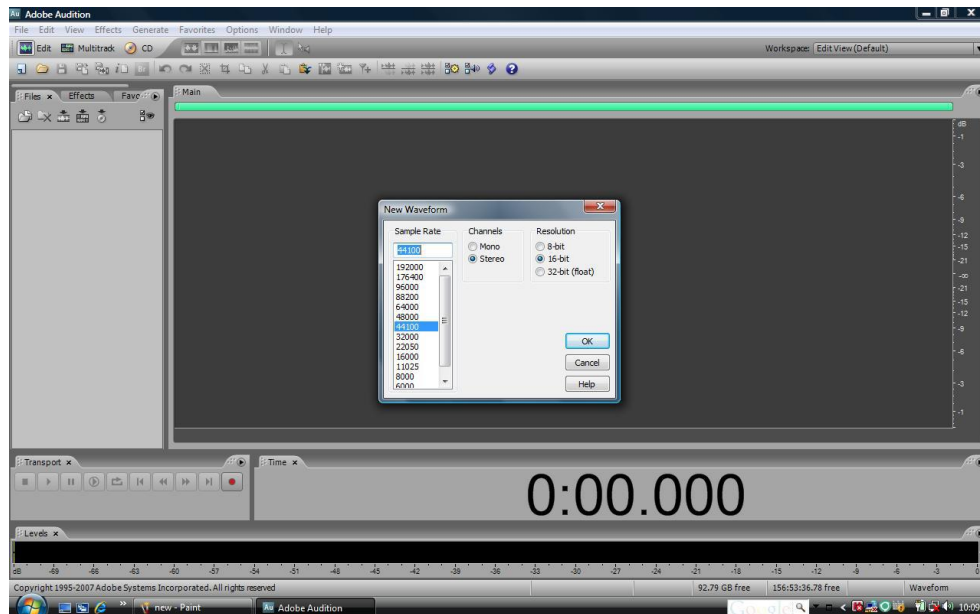
- Check on the Adobe Audition window middle menu bar that the “Edit View” and “Waveform Display” icons are highlighted.



The “RECORD LEVEL” is fixed and cannot be adjusted. The levels are adjusted using the mixer controls.

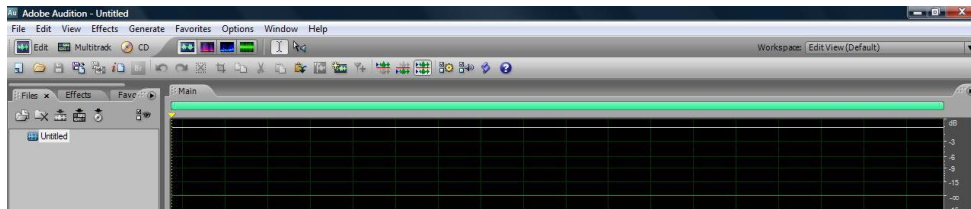
12. Prepare the PC for recording.

- On the Adobe Audition window top menu bar, [click] “File” by using the mouse to move the pointer (↔) over it and clicking the left hand mouse button once, a menu list will appear. [Click] “New...” and a “New Waveform” window will open.

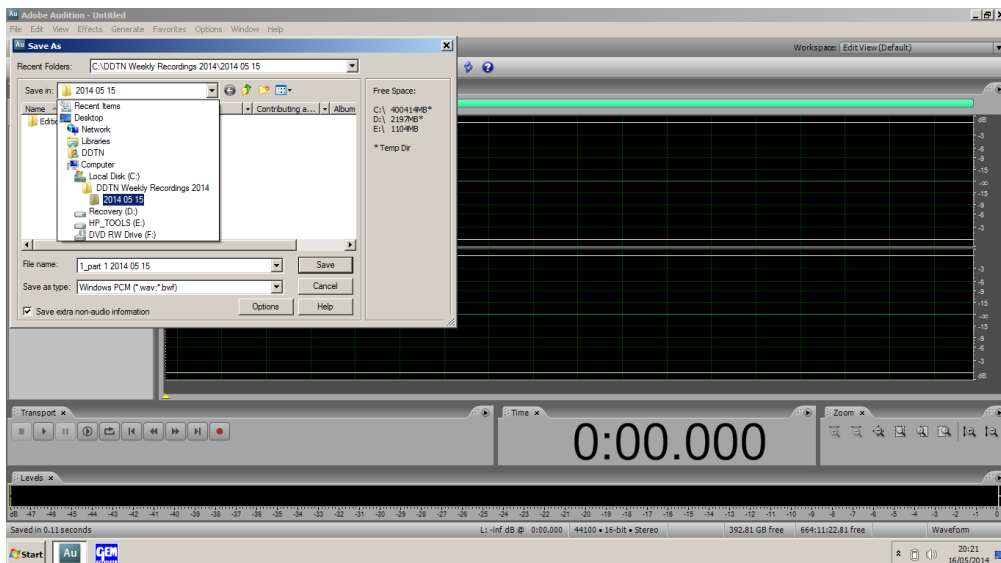


Check the sample rate is 44100, Channels Stereo and Resolution 16-bit. [Click] OK

“Untitled” will appear in the LH panel.

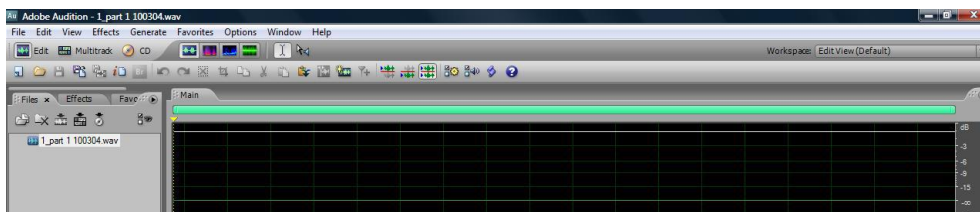


- b. On the Adobe Audition window top menu bar, [click] “File” then “Save As” from the menu list. A “Save As” window will open.
- Use the drop down menu for the “Save in” box. [Click] down arrow on right of the box).
 - [Click] “C:\DDTN Weekly Recordings year” and [open] today’s date. That date will appear in the “Save in” Box. The format of the date is set out “yyyy mm dd” in order to keep the folders in date order.
 - [Click] in the “File Name” box and “untitled” will be highlighted. Press the keyboard delete (DEL) key to remove “untitled” and then type in the name for the new recording. The name for the News section (Part 1) should be: 1_part 1 ‘date’. **Note:** Do not use a full stop in the name.
 - Check that the “Save as type” is Windows PCM (*.wav,*.bwf). This is selected from the drop down menu ([click] down arrow on right of the box).



[Click] “Save”.

“Untitled” in the LH panel will change to 1_part 1 ‘date’.wav.



13. To split the recording into separate tracks “Track Makers” are used.

A single key “END”, which is on the bottom right of the keyboard, has been assigned to insert the Track Marker. The default is Ctrl+Shift+F8 which could be too complicated to use “on the fly”.

Before you start recording put a **TRACK MARKER at the BEGINNING** of part1. This is **IMPORTANT** because if you do not put in the marker at the start or try to add it at the end, the first track can either be missing or play out of sequence.

You can insert the TRACK MARKER when you first set up the new file before you name and save it. This may help you remember it before the pressure of starting the recording.

The sequence will be:-

- open new waveform
- check sample rate etc.
- insert track marker
- save waveform

14. Next take 3 Microphones from their pouches.

Each mic has its own battery power supply halfway along the lead: switch this ON. There are 4 microphones fitted with adaptors to convert the mic plug from jack to 3-pin XLR. These should be left attached to the microphones. There is a 5th microphone without an adaptor. If you need to replace a mic with this one you will need to move the adaptor to the new microphone.

15. Plug in the 3 mics with their adaptors into the 3-pin XLR sockets on the left hand top rear of the mixer so that Reader 1 has mic 1, Reader 2 has mic 2 etc.

16. Ask each reader to attach the mic securely to clothing. About four inches below the chin is a good distance (say just below the reader’s collar bone). Make sure that neither the mic nor its lead brushes against the table, papers or any jewellery if the reader leans forward (tip: the lead can always be taken up and back over the reader’s shoulder if necessary).

17. Now you need to establish the sound levels.

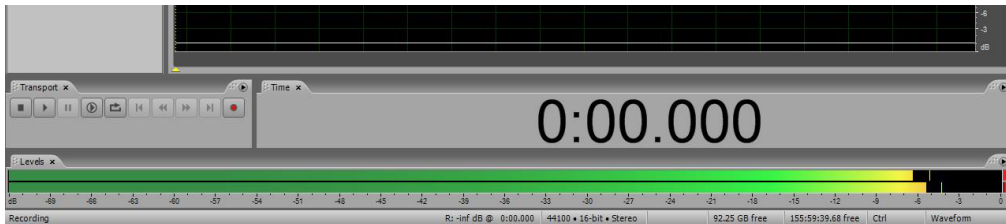
Press F10 on the top row of the keyboard to read the input signal on the **PC** level meters.

Note: If input signal shows on the mixer meters but does not show on the **PC** level meters, and all the leads are plugged correctly, first place the mouse pointer over the “levels” and click the LH button. There should be a yellow border to the “levels” panel. If the signal is still not visible it could be that the PC has been started without the mixer connected and has switched to its internal sound card or the USB port has stopped working. (See **CORRECTING PROBLEMS 7**)

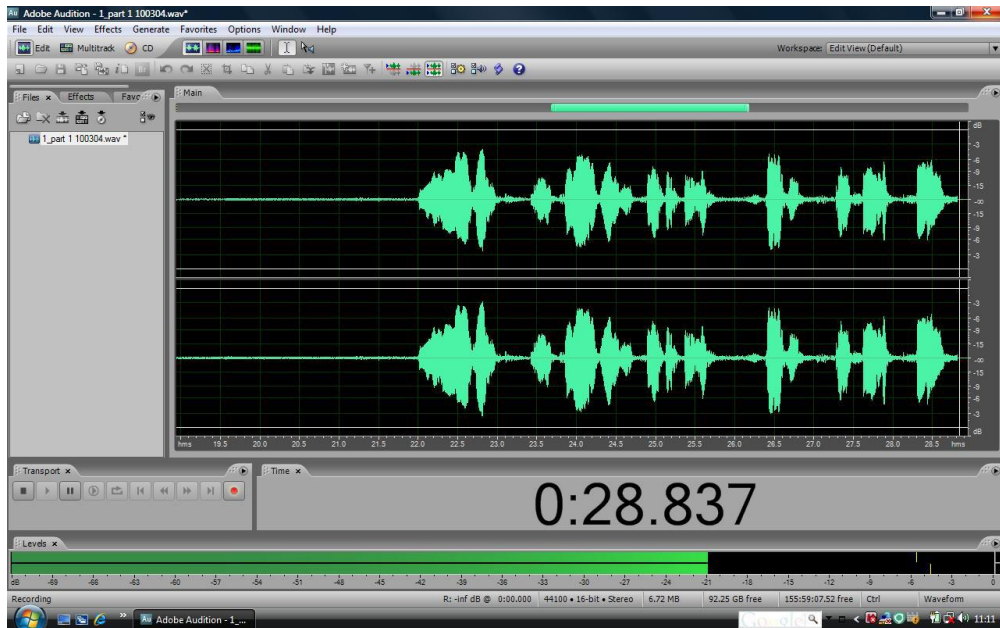
Open the mic faders one at a time and ask each reader to read a few lines. Watch the level meter on **PC**. The levels are shown on the bar along the bottom of the screen. The level should consistently reach the “-3”, yellow, with peak levels pushing it just up into the red zone (not more than about “0”). Bear in mind that some voices are more penetrating than others, so use your ears as well as the meters: all the voices should **sound** equally loud.

If a reader is too loud the "clip" light next to that fader will flash. If this happens the signal will be distorted. Reduce the level a little by turning the MIC TRIM control down (anticlockwise) until the clip light stays OFF. You can open the MASTER fader further if you get a particularly quiet reader, but it shouldn't be necessary: it may be more effective simply to move the mic a little closer to the reader's mouth.

There are two indicators at the right hand end of the level meter which will turn red if the level goes over "0". To clear these indicators if they turn red during the set up, move the mouse pointer over the indicators and [click] the LH mouse button.



18. Don't be tempted to increase the levels beyond this: the sound will become distorted and the result will be unusable. If you find it too quiet in your headphones, increase the headphone volume on the mixer.
19. Notice where each mic fader needs to be to achieve the correct level for the individual readers so that you can open the faders to the right levels quickly and accurately during the recording. You may need to make minor adjustments to levels as the recording progresses, but you will have established a baseline. Listen as you record and if one reader sounds louder ease the level back a little so that the voices balance.
20. When everyone is ready, start recording on the PC (hold down the Ctrl. key and then press the space bar or move the mouse pointer over the record button on the transport bar and [click] the LH mouse button). Give reader 1 a clear signal to start speaking and introduce tonight's team.
21. When the PC starts recording, the audio waveform will be shown scrolling in the Main window. The level meter at the bottom of the screen will automatically switch from the input to show the recording level.



22. You can see from the “Time” on the PC screen how the recording is progressing.

Well done — that’s the tricky part over!

23. Now it’s just a question of remembering to open and close the reader’s mics, inserting the track markers and keeping a constant eye on their sound levels. Try to anticipate a bit, so that there is a short overlap period when both mics are open as the readers hand over to one another.

24. Track Markers need to be inserted AT EACH CHANGEOVER between readers. Accuracy of the marker position is not essential as the USB players will play through the tracks, only using them when the listener uses the player skip forward or back buttons. The sequence will be:-

- open the next reader’s mic
- insert a Track Marker
- close the previous reader’s mic

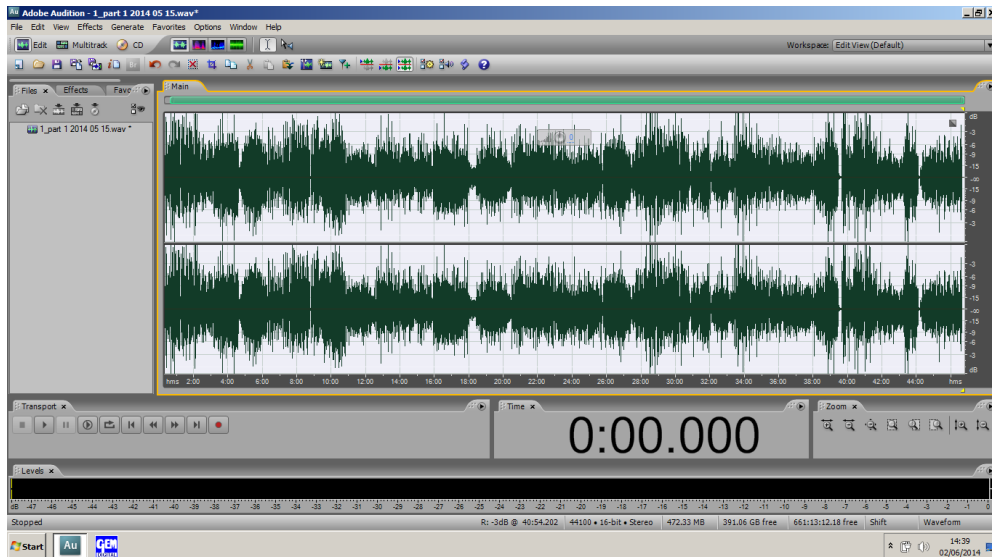
25. The PC does not feed the signal back when it is recording so it is not possible to listen to the recorded signal. The scrolling waveform and level metering are indications that all is well.

26. Check periodically that the laptop main screen is still scrolling throughout the recording — you’ll be more popular if you have to go back and do it all again sooner rather than later!

27. One advantage of the digital recording is that there is no 45 minute cut off time, the memory sticks used for the listeners will hold up to 10 hours of material.

28. At the end of the news, reader 1 credits tonight’s team (that’s your moment of glory if you’ve got this right!). Open all the mics for the readers to say goodbye. Close the mics after the goodbyes, insert an end track marker and stop the recording.

29. At the end of the recording put a **TRACK MARKER** at the **VERY END OF THE RECORDING**.
30. Stop the recording. You do this by pressing the space bar (or by moving the mouse pointer over the stop button on the transport bar and [click] the LH mouse button). The screen will now show the whole recording compressed into a single screen width and highlighted (white with a black waveform).




Note: Whilst the recording is highlighted it is vulnerable and the file should be saved as soon as possible. If you should delete the file, or part of it, at any point you can use the “undo” function (Top menu bar/Edit/undo delete) to retrieve it.

31. An asterisk will have appeared at the end of the file name in the LH panel. This indicates that the file has been modified but not saved.

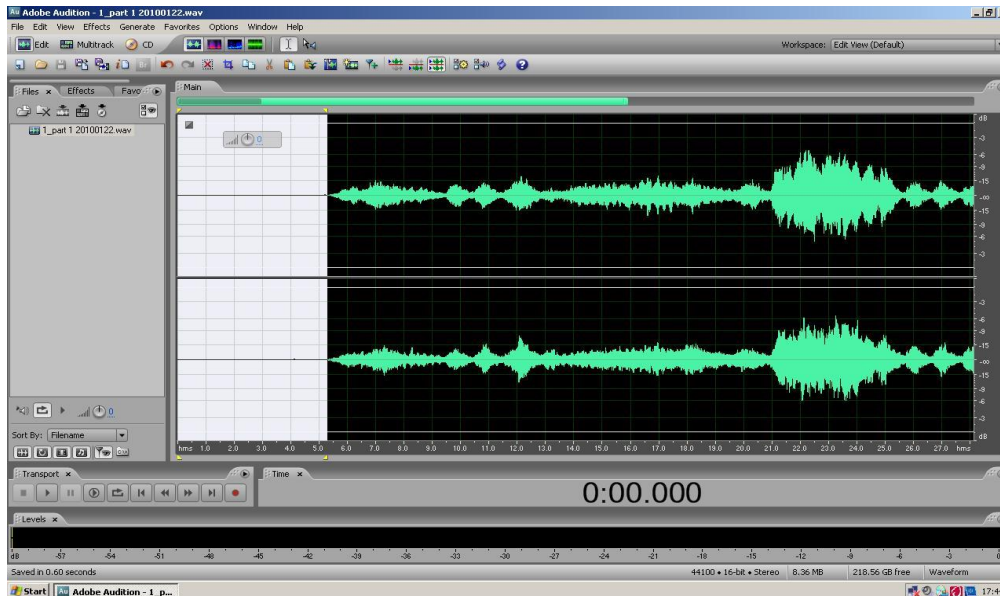


On the Adobe Audition window top menu bar, [click] “File” then “Save”. The “Saving wav data” progress box appears. This will close when the file is saved. Wait another few seconds for the asterisk at the end of the file name to clear.

To remove the highlighting move the cursor over any part of the waveform and click the left mouse button. To expand the waveform click on the  in the “Zoom” panel, RH side under the waveform.

32. You now need to “tidy up” the start and finish of the recording to avoid having long gaps of silence before anything happens or after the readers have finished. There should be between ½ to 1 sec. of silence after the 1st track marker and before the start of the speech and a similar amount at the end. You do this by finding the start of the wave form (the first intended sound on the recording) and clicking the mouse approximately ½ sec before that point

on the central bar between the two tracks on the screen. (Time is shown on the horizontal scale in the recording window). Holding the LH mouse button down from this point and draw the cursor back to the track marker on the left hand side of the screen. The selected area will now appear white with a black waveform running through it.



Now press the Delete (DEL) key on the **PC**. This will remove the unwanted portion of the recording.

Be careful not to erase the start marker. If you do press UNDO and try again.

Do the same, but selecting from the end of the recording to the right hand end of the screen, to tidy up the end again being careful not to erase the end marker.

Don't forget to resave the recording when you have finished.

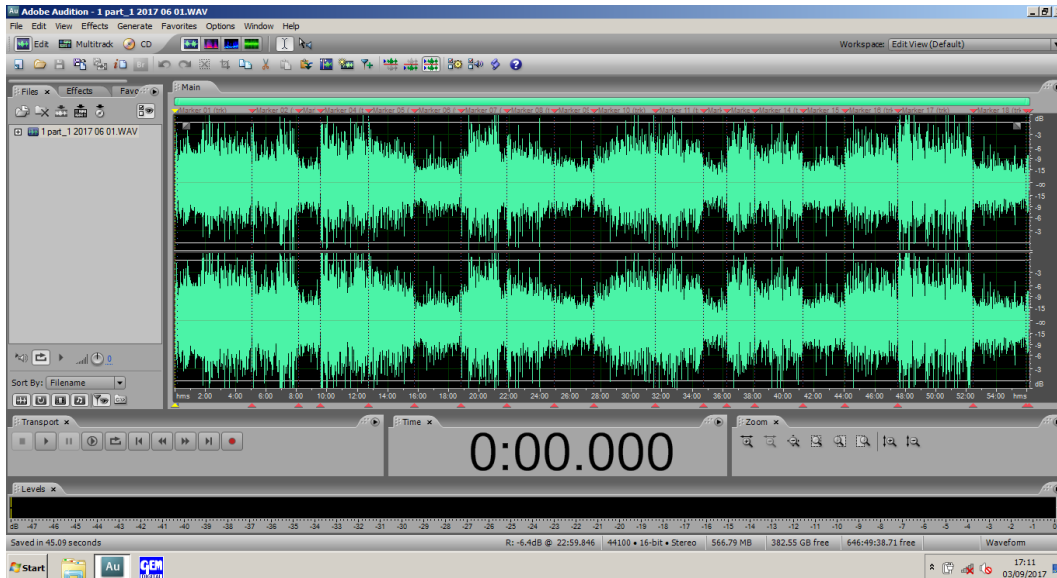
33. Should you misplace a Track Marker (i.e. be late marking a changeover) it is possible to 'drag and drop' it into the correct place. (Right click on the **RED** arrow at the top of the marker and hold it down while you drag it to the desired place.)

You may need to do this also when trimming the start and finish of the recording, so as to ensure that these two vital markers are in the right place.

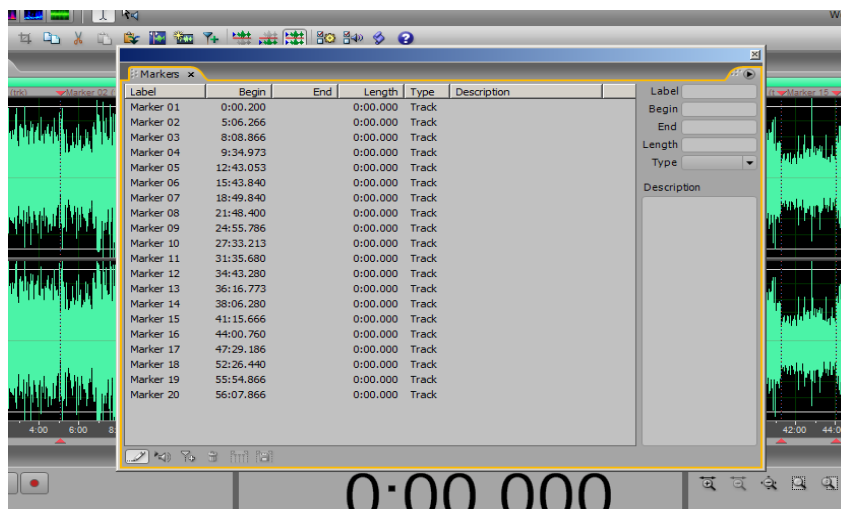
34. On the Adobe Audition window top menu bar, [click] "File" then "Close All".

The parts now need to be split into tracks and converted to MP3.

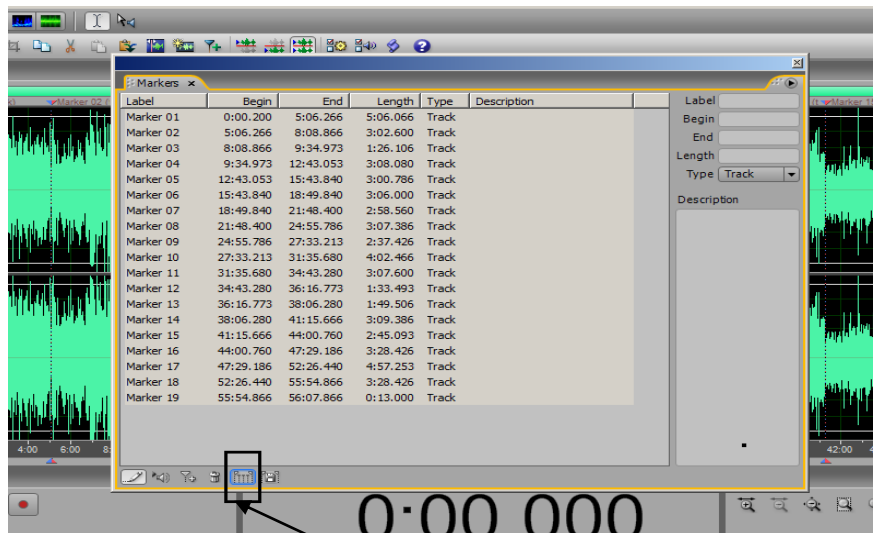
35. Open the part 1 recording.



36. ALT + 8, or Window menu/Marker List, will give a list of the Track Marker points.



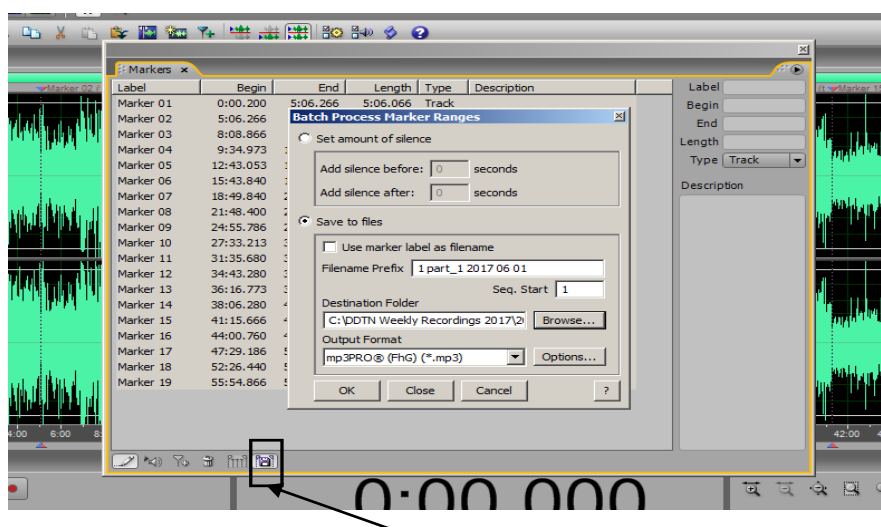
37. Highlight all the track marker points (click on the top items in the list and then scroll down and shift/click on the bottom item) then click on 'Merge Selected' button at the bottom of the marker window, 4th from left. All the cues will be converted from 'points' to 'ranges', and the last cue will be deleted.



Merge Selected

38. Highlight all the cues again, and click on 'Batch Process Marker Regions', to the right of 'Merge Selected'. That will bring up a window asking the file name, what file type, which folder it should write to, and what numbering scheme you want for the individual files. This is where the process gets a little long winded.

- Check Set amount of silence is NOT ticked and 'Add silence before' and 'Add silence after' are set to "0". Other durations will put a break in the audio so the accuracy of the marker position exactly between the readers would be essential.
- Check Save to files is ticked.
- Check that 'Use marker label as filename' is NOT ticked.
- In 'filename prefix' box you will need to type in the filename again i.e. 1_part 1 (date)
- Check 'Seq. Start' is "1".
- Choose the 'edition' folder for the week as the 'Destination Folder'.
- Choose MP3 as the 'Output Format'.



Batch Process Marker Regions

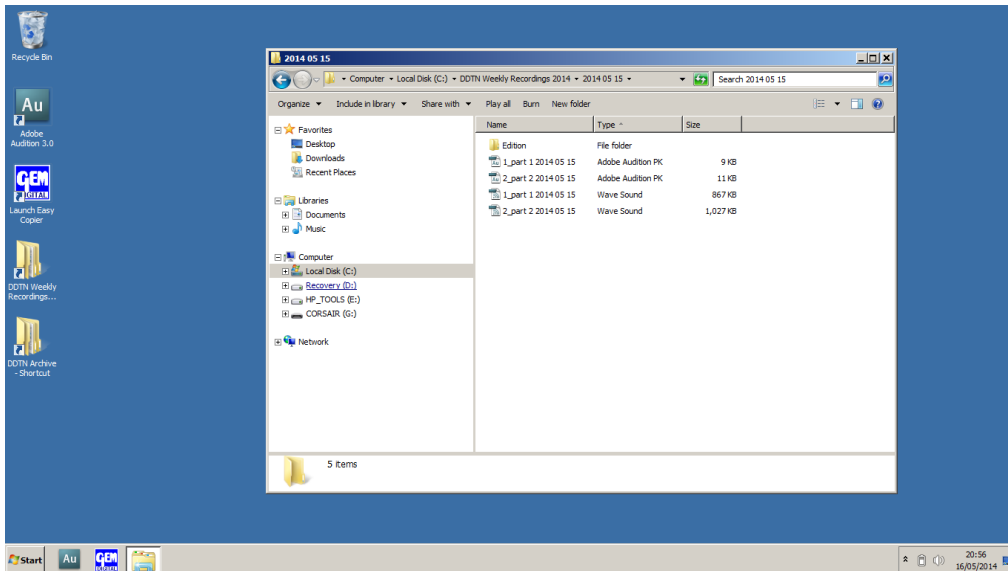
Pressing 'OK' should then put each track as an .mp3 file in the folder with the recording name and with 001, 002 etc. as a suffix.

39. Close the part 1 recording.

40. Close Adobe Audition by either clicking on the X at the top right of the screen or [click] “File” and then “Exit” which is at the bottom of the menu list.

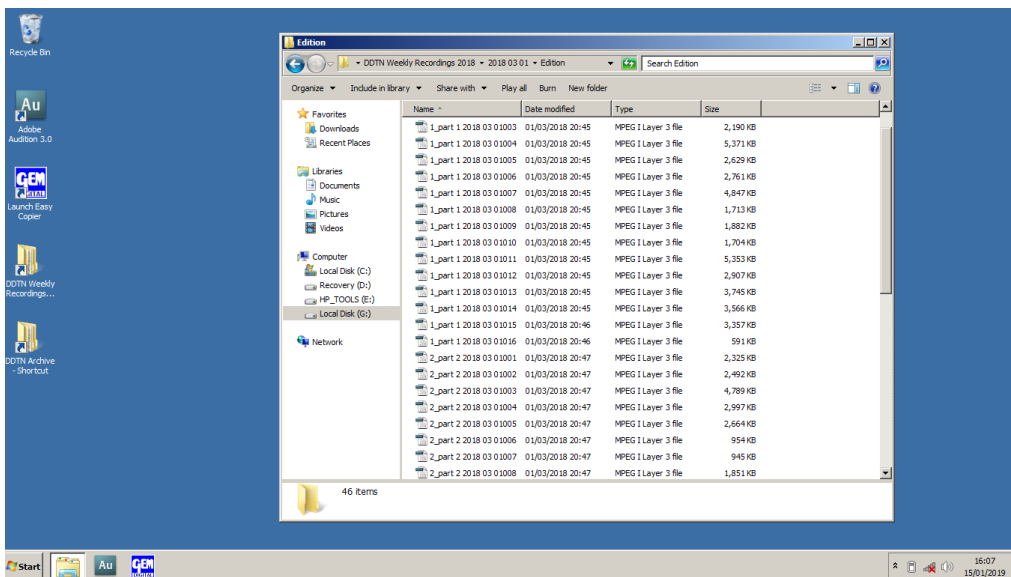
41. It is worth checking that the files are all in the correct folders.

- On the desktop [open] the “DDTN Weekly Recordings year” folder and [open] today's date.



- There should be the Edition folder, two Adobe Audition PK (.pk) files and two Wave Sound (.wav) files.

- [Open] the Edition folder.



- It should contain a number of MPEG 1 Layer 3 file (.mp3) files.

And that's it! Just three last, important, things to do:

1. Unplug the Mixer from the Laptop. Do not switch off the laptop as it is now needed by the Duplicator. Put all the equipment in the cupboard.
2. Remember to switch off each mic's power supply when you put them away and be sure to put each mic into its colour-coded pouch. This is important in case of technical problems: we need to know which mic is which.
3. Before you go home (or during a boring stretch of the recording!) fill in the Tape Register with the details of the week's tape: edition number, date, readers' names and if there was a magazine.

Do remember that you have ultimate control of the recording. You are, after all, the only "Listener" present. With this in mind, please wear the headphones throughout the recording so that you experience it as a Listener.

If a mistake occurs near the beginning of a section of the recording, it is probably best to stop, go back to the beginning and start again. Beginnings are vital – if the first thing the Listener hears is a muddle, they are likely to switch off. If there is a real problem (anything lasting more than 2-3 seconds, which sounds like a long time to a Listener) during the recording, either stop the recording and go back to the nearest convenient point to start again, or make a note of the time and go back at the end to edit it out. (See **CORRECTING PROBLEMS 6**)

It's your job to see that the recording is clear and intelligible, so if you think that someone is, for example, reading too fast, rustling paper or masking the mic, it is up to you to tell them or signal to them to correct it. Have a pen and paper to hand so that you can pass them a note.

Don't feel embarrassed – you represent the Listeners at the recording and they need you to look after their interests.

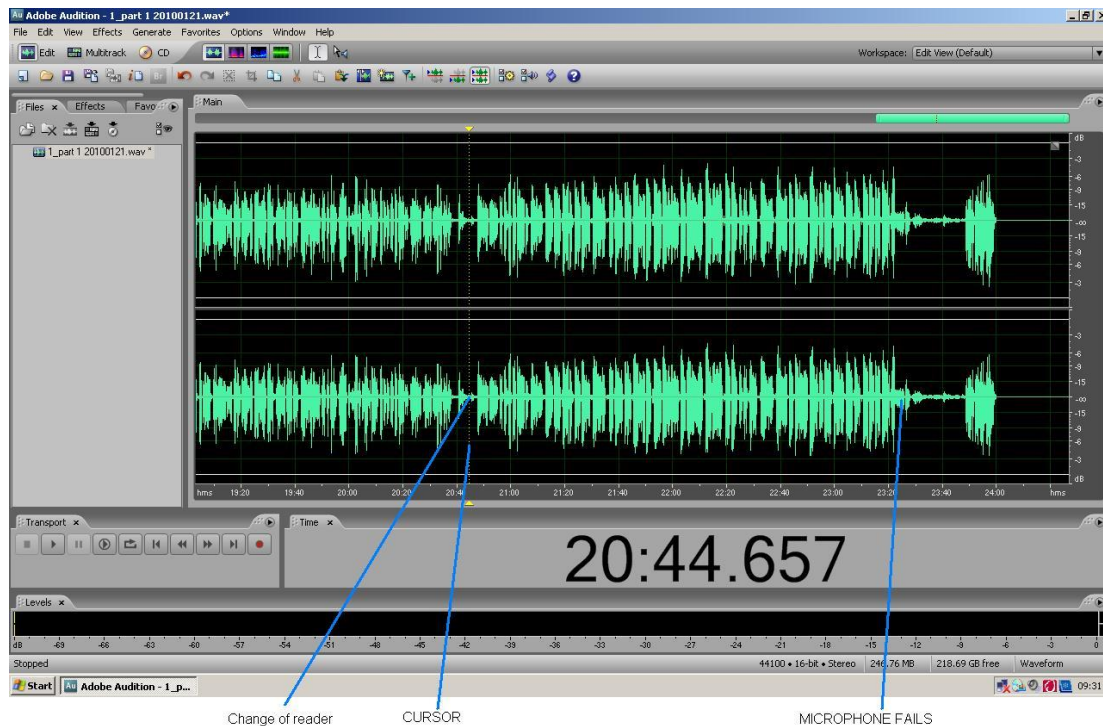
It can be useful to hear the recording you have just made. You can listen to the recording online via our website. Go to www.dorkingtalkingnewspaper.org.uk and select "listen here for latest recording" link to hear the programme. It is usually available by early in the week following production.

Should you find a fault that you cannot cure, **don't just put the problem back in the cupboard** to jinx the next recording: write down the fault in the **Equipment Log Book** and let Dave Thurtell know about it a.s.a.p. on **01306 888783** or email **davidthurtell@btinternet.com**.

CORRECTING PROBLEMS

1. You may get a reader who knocks his mic or mic lead with his hands or papers, producing a series of thuds or crackles, or one who clasps his hands above the mic, masking it from his face. If it only happens once or twice, never mind, but if it keeps happening, it's worth stopping the recording, explaining, and asking the reader to keep his hands flat on the table while reading. If he can't manage this comfortably, you'll have to move the mic or its lead out of the way — perhaps a bit higher — and then check the levels again, of course.
2. The opposite problem to this is the reader who constantly 'pops' the mic with his voice (literally blasting it with sound). Changing the fader level won't solve this one — you need to reposition the mic. Make sure it's pointing downwards and try clipping it a bit lower if you can.
3. Sometimes a mic develops a persistent crackle. If this happens, stop the recording. Try unplugging the mic, cleaning the plug, and replugging into the back of the mixer, making sure again that all the plugs and adaptors are fully home. Try also switching the mic off and on again at its own power supply. If all else fails, there is a spare mic in the cupboard.
4. You may get a mic fading away on you: this is likely to be due to a flat battery in its power supply (hence the importance of switching them off at the end of the recording). Replace the battery with a fresh one from the cupboard and throw the dead one away. Again as a last resort, there is always the spare mic in the cupboard. To replace the battery, unscrew the two halves of the mic power supply, remove the old battery and insert the new one, making sure it goes in the right way up (there is a diagram engraved on the casing).
If you do replace a mic battery, you must tell David or Jessica (888783) so that we can buy a new spare.
5. Sometimes the recording may have to be stopped in the middle. Remember to **Save** (paragraph 28) at this point, before you try to restart the recording. The digital recording is easy to edit, in the event of an interruption (reader's coughing fit, microphone failing, loud noise from outside, etc) because you can see clearly on the screen waveform where the gaps in speech are. Simply positioning the cursor in a gap and restarting the recording makes a seamless edit. So to make sure of restarting in the right place, click the mouse on the central bar of the screen (between the two waveforms) a little before the interruption occurred. Press the SOURCE: 2-TR/USB button to listen to the PC output on the headphones and press Play (spacebar) to listen for a suitable moment to pick up from. Position the cursor in this gap, press and hold the left mouse button and swipe right to the end of the waveform to select the unwanted portion. Press Delete. The cursor will now be at the end of the recording. Restart the recording at this point.

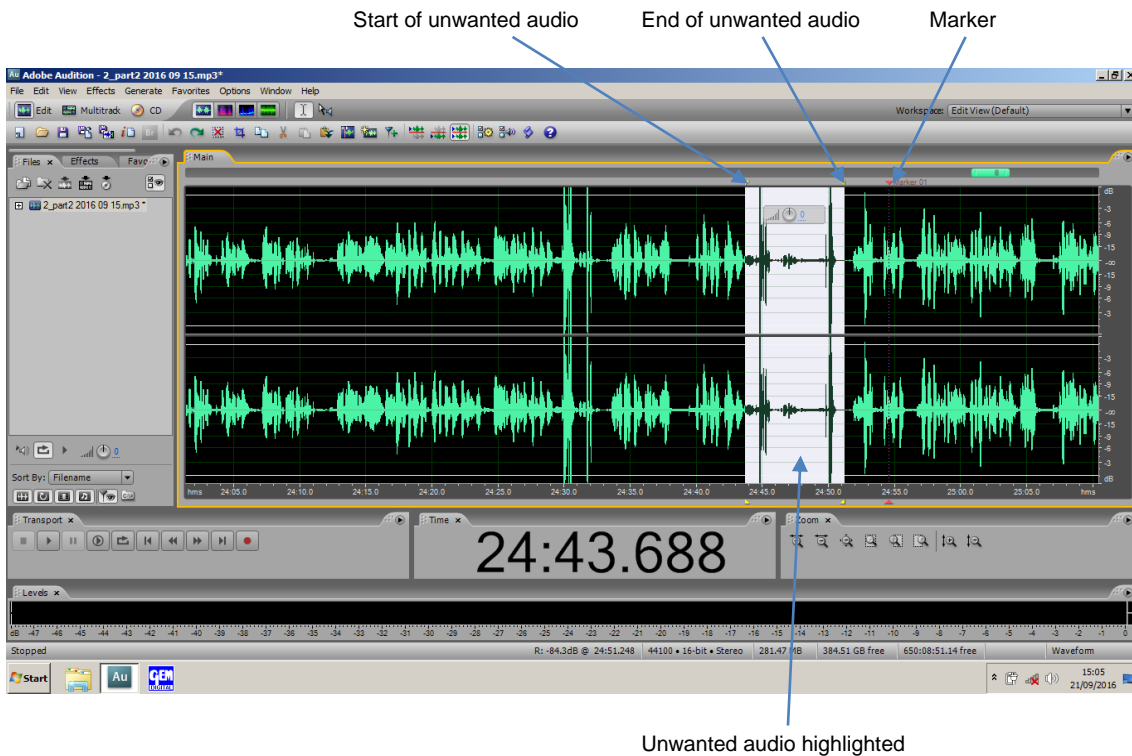
If you cannot hear the audio replaying check the Audio Hardware Setup as below in **CORRECTING PROBLEMS 7**.



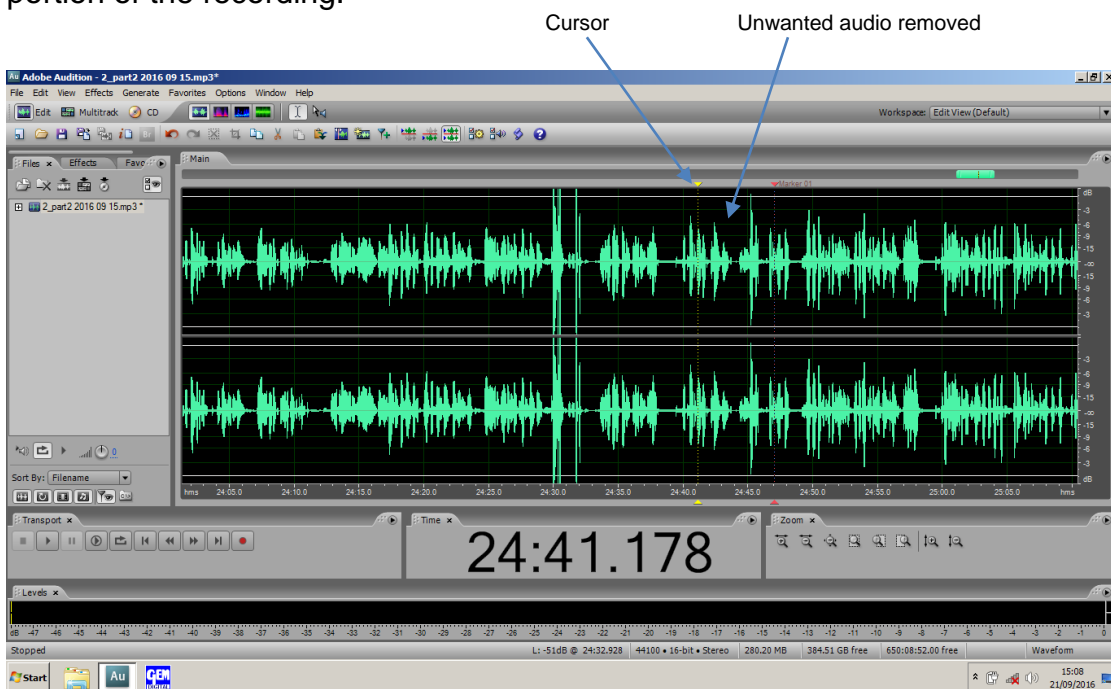
- To remove unwanted audio in the middle of the recording you will need to find the start of the unwanted audio. Click the LH mouse button on the centre bar of the waveform before where you think the audio starts. This will place the cursor in that position. Press the SOURCE: 2-TR/USB button to listen to the PC output on the headphones and press Play (spacebar) to listen to the playback and make a note of when the unwanted audio starts. Carry on listening and make a note of when the wanted audio appears.

Go to the start of the unwanted audio and click the LH mouse button, Holding the LH mouse button down from this point and draw the cursor to the right to the position of the start of the wanted audio. The selected area will now appear white with a black waveform running through it.

Press the spacebar to listen to this highlighted section and check that it is what you want to delete. If not, try again until you have made the right selection.



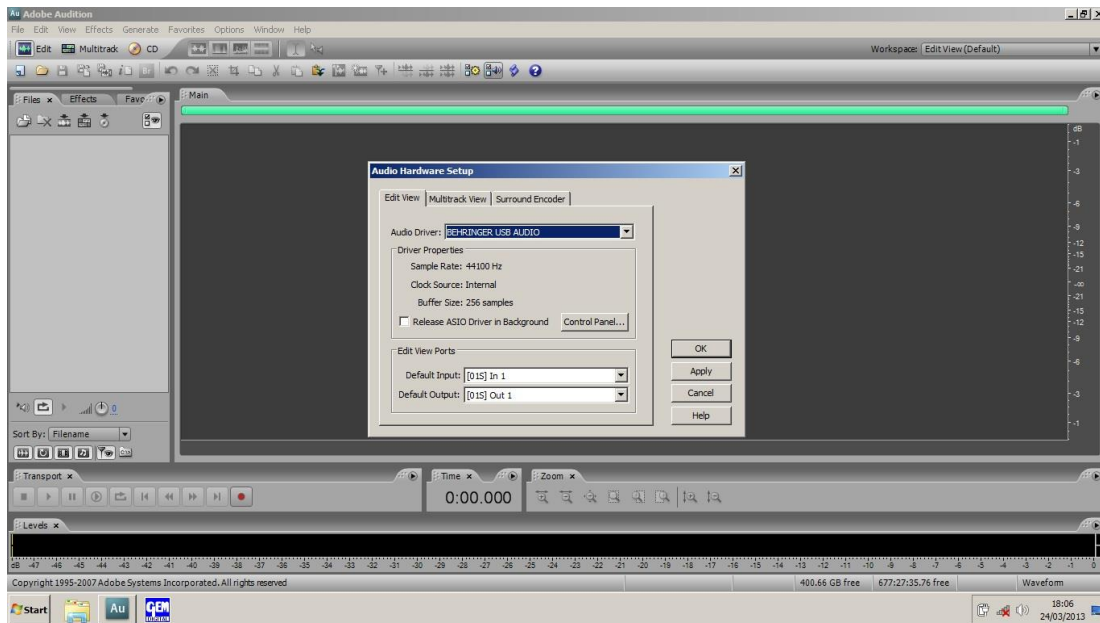
Now press the Delete (DEL) key on the PC. This will remove the unwanted portion of the recording.



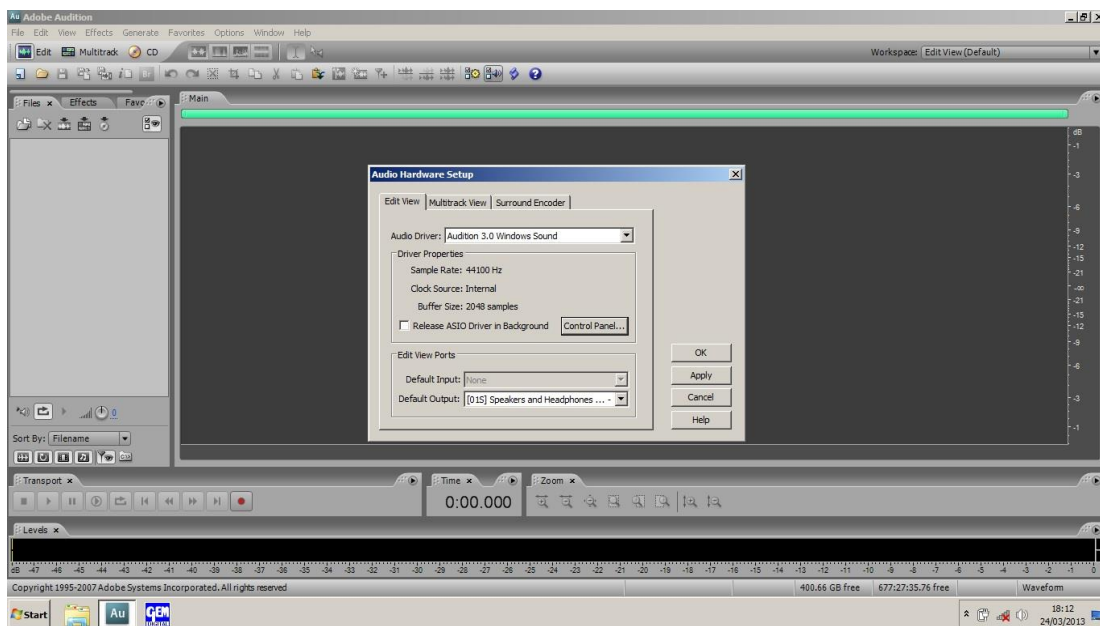
Place the cursor before where the audio began and play the recording. If the audio sounds ok then you have successfully removed the unwanted bit.

If the audio sounds wrong, i.e. too much or not enough has been removed, you can use the “undo” function (Top menu bar/Edit/undo delete) to restore the deleted audio. You can then try again until the recording sounds right.

7. If the audio does not appear on the input of the Audition software (F10) you will need to check the Audio Hardware Setup. Go to top menu bar, Edit and select “Audio Hardware Setup...” (near the bottom of the list). It should be:

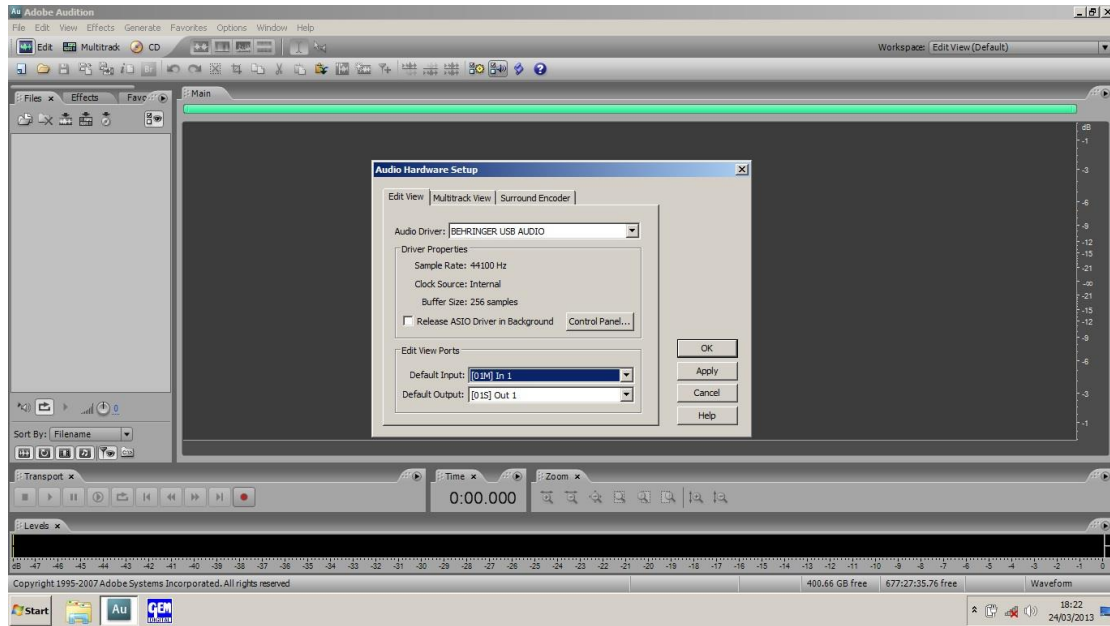


If the laptop has been started without the USB audio interface box it may have been reset to the internal audio interface:

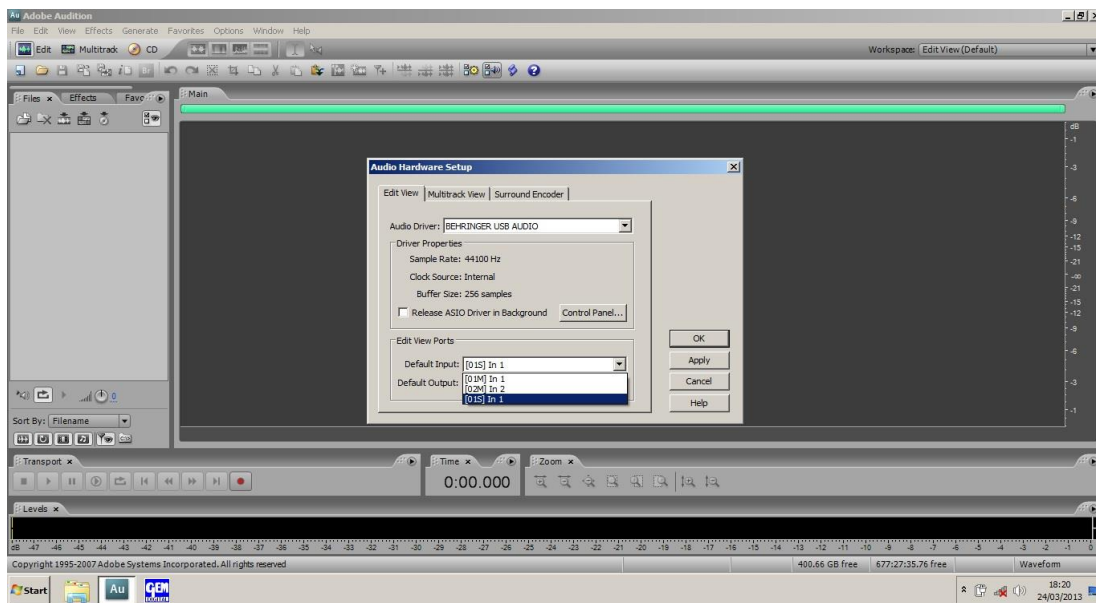


To reset it to the external audio interface you can select the correct Audio Driver from the drop down list (down arrow to the right of the box). [Click] “BEHRINGER USB AUDIO”

Default Input [01M] may have selected.



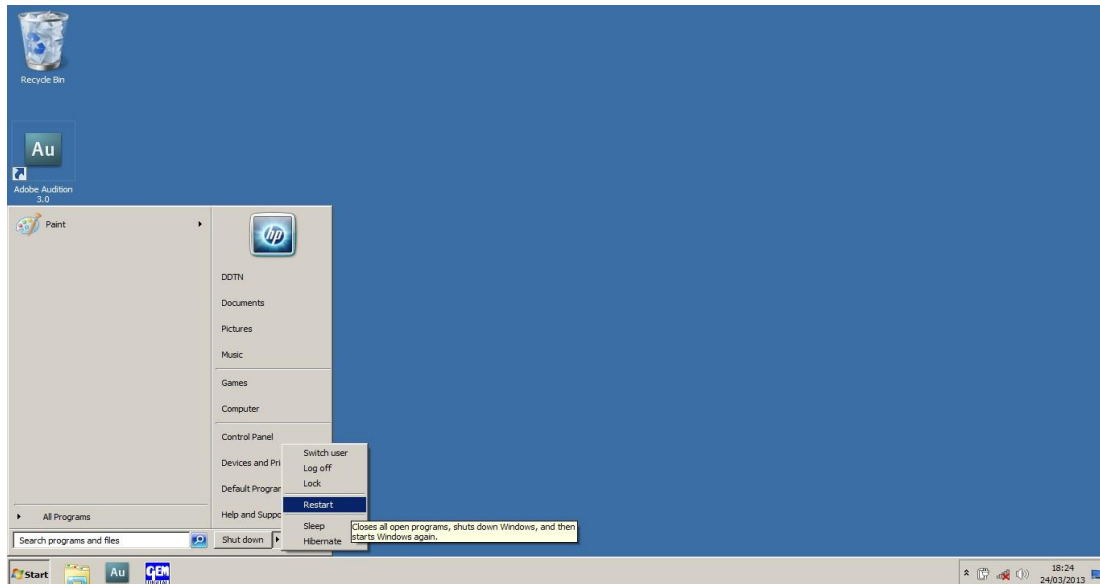
You can select the correct stereo input from the drop down list (down arrow to the right of the box). [Click] (01S) In 1.



[Click] OK

The Audio Hardware Setup panel should now look like the first screen in this section. Double check that the Edit View Ports Default input and output are “[01S] In 1” and “[01S] Out 1”.

8. If the audio does still not appear on the Audition input it may be that the laptop USB port has shutdown. To get the port working again the laptop will need to be restarted.
- a) Move the mouse pointer over the start icon at the bottom left of the screen and [click] LH button once. Then move the pointer to the arrow to the left of “Shut Down and a menu will appear.



- b) Move the mouse pointer to “Restart” and [click] LH button. The PC will now shut down and restart.

You will now need to open Audition and the saved part 1 file.

If you turn up a problem you can't solve, RING 01306 888783 ...
David or Jessica will do their best for you.