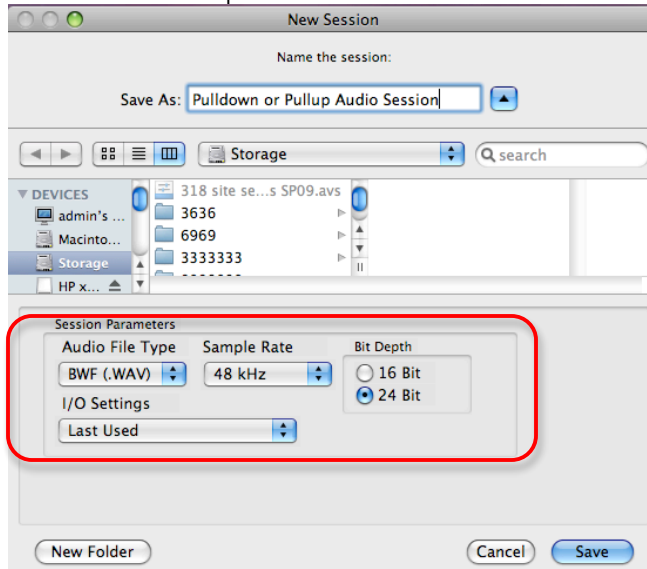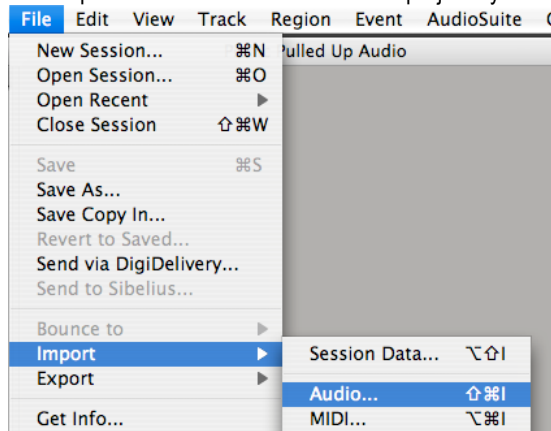**How to PullUp or PullDown audio files captured with a hard disk recorder.**

1. Launch ProTools
2. Create a new session >File >New Session and set to these settings
    Audio file type should be set to what the file is on the hard disk recorder. Usually is set to .wav with sample rate 48 and bit depth 24.
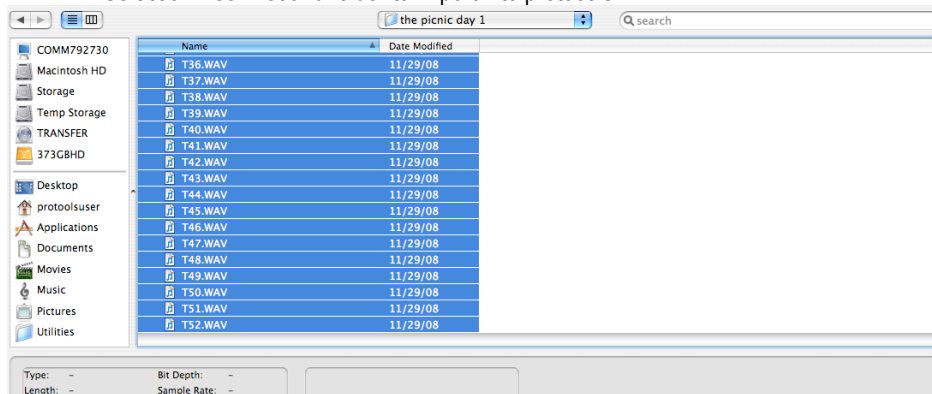

Make sure to save the file to the storage drive inside the computer. Don't use firewire drives. Ex: choose the storage drive of the suite or your personal firewire/USB drive. Click SAVE now.
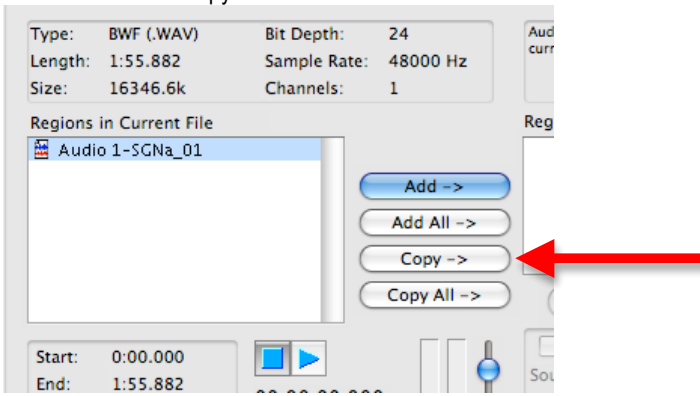
3.   Import the sound files into ProTools project by selecting >File>import>Audio.

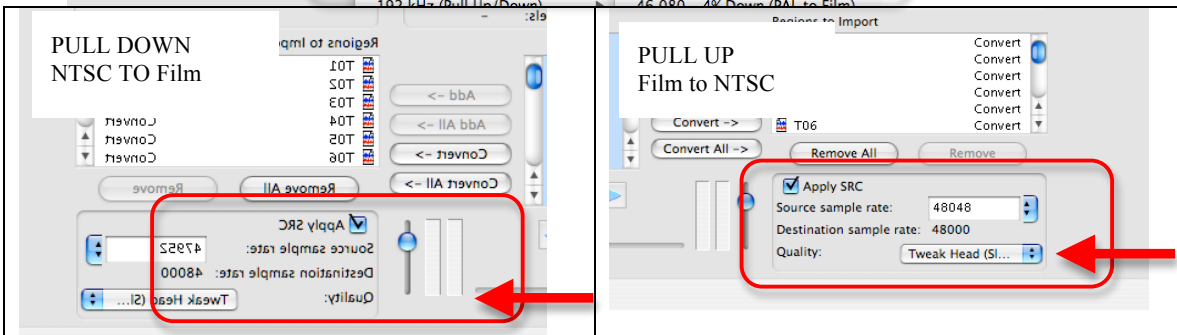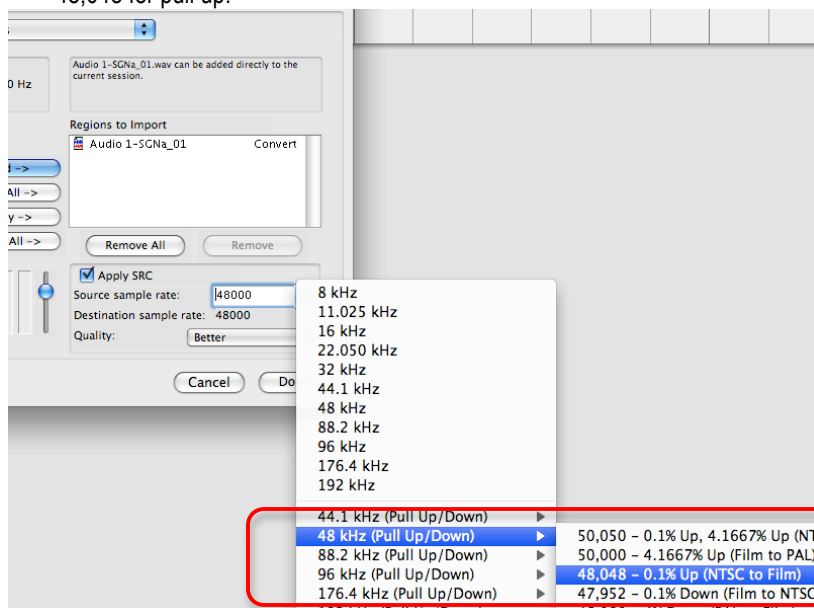4. Select all files in sound folder to import into protocols.

5. Then Select "Copy"

Type:	BWF (.WAV)	Bit Depth:	24
Length:	1:55.882	Sample Rate:	48000 Hz
Size:	16346.6k	Channels:	1

Regions in Current File

Audio 1-SGNa_01

Add ->
Add All ->
Copy ->
Copy All ->
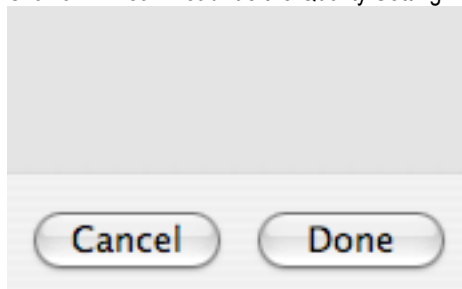
Start: 0:00.000
End: 1:55.882

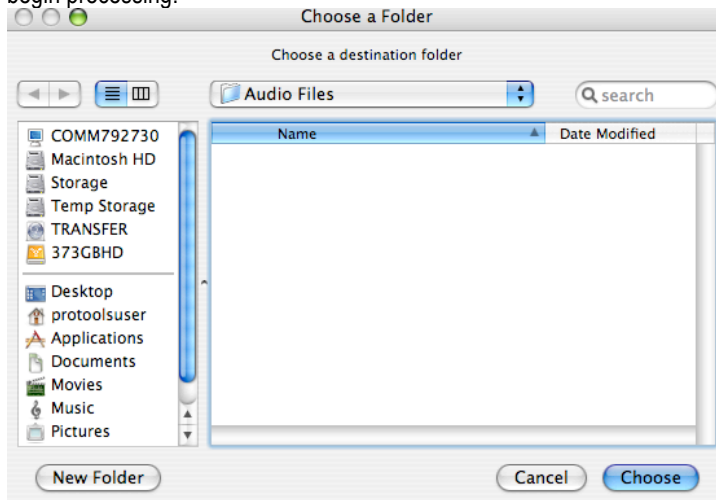Try to limit selection to @200 files so that ProTools doesn't crash and import is accurate.

6. Select Apply SRC and choose 48kHz as Destination sample rate and select 47,952 to pull audio down and 48,048 for pull up.

Audio 1-SGNa_01.wav can be added directly to the current session.

Regions to Import

Audio 1-SGNa_01   Convert

Remove All   Remove

☑ Apply SRC
Source sample rate: 48000
Destination sample rate: 48000
Quality: Better

Cancel   Do

| 8 kHz |
| 11.025 kHz |
| 16 kHz |
| 22.050 kHz |
| 32 kHz |
| 44.1 kHz |
| 48 kHz |
| 88.2 kHz |
| 96 kHz |
| 176.4 kHz |
| 192 kHz |

44.1 kHz (Pull Up/Down)	▶	
48 kHz (Pull Up/Down)	▶	50,050 – 0.1% Up, 4.1667% Up (NTS
88.2 kHz (Pull Up/Down)	▶	50,000 – 4.1667% Up (Film to PAL)
96 kHz (Pull Up/Down)	▶	48,048 – 0.1% Up (NTSC to Film)
176.4 kHz (Pull Up/Down)		47,952 – 0.1% Down (Film to NTSC)

PULL DOWN
NTSC TO Film

T01
T02
T03
T04   Convert
T05   Convert
T06   Convert

Add ->
Add All ->
Convert ->
Convert All ->

Remove   Remove All

☑ Apply SRC
Source sample rate: 47952
Destination sample rate: 48000
Quality: Tweak Head (Sl...)

PULL UP
Film to NTSC

Convert ->   T06
Convert All ->

Convert
Convert
Convert
Convert
Convert
Convert

Remove All   Remove

☑ Apply SRC
Source sample rate: 48048
Destination sample rate: 48000
Quality: Tweak Head (Sl...)

Click on "Tweak Head" as the Quality Setting   > Then Click "Done"
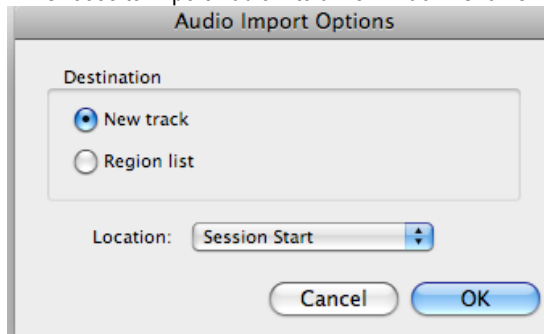
Cancel   Done

6. Choose to "Use Current Folder" which should automatically be the audio file folder in your project. Files will begin processing.

Files will be transcoded and may take a while depending on how many tracks.

7. Choose to import Audio into a New Track. Click OK

8. Save the current session and close it.

9. Now import the new Audio Files into Final Cut or AVID that ProTools Pulled Up or Down from the folder ProTools created from the session that was just saved. Use these files to synch up to the video files.