By C.J. Huss
Chapter Fourteen
Tape It To The Limit/One More Time
- The Long and Winding Road -

I do go on, don't I? Hey, somebody has to, right? If one does not go on, then a whole realm of weighty philosophical issues come into play, and then where would we be? The whole modern human techno-universe could up and vanish, and then all the various monkeys out there would get another shot at evolving into something else.

No, not those Monkees, bless their little musical hearts. Hey, I bet some of you have some tapes of them stashed somewhere, don't you? Uh-huh... some rare TV or radio program never ever released on a recording you could go to the mall and purchase. Want to preserve that bit of history for your descendants, or just the randomly curious? Then it's time to bring this series of tape-preservation missives to a robust conclusion!

Whew, that was dramatic, wasn't it? But not nearly as dramatic as the satisfaction you will hopefully receive if you have never before tried to transfer a recording you own on audio tape (or for that matter, LP, 78, Beta or VHS videotape, whatever) and succeed in using your Mac or PC computer to do so!

Very good, then, rambly preface over, and let's get down to the details of the process involved. As I mentioned in the previous installment of this series, there will be a learning curve if you have never done this before, but the essence of what you will be doing really falls into three main categories, which are…

1. Taking the audio information on your tape or other source and getting it into the computer where it gets converted into digital form and stored on the hard drive.

2. Opening up that digital recording in an editor, where you can organize it in pretty much whatever way you like. While editing is really an optional process, it usually is beneficial in ways I'll go into later.

3. Take the edited recording and save it to some other medium, most commonly a recordable CD disc. There are other options, and again, more details later.

I'll start by posting this modified graphic from my last column, which visually summarizes part one of the process.
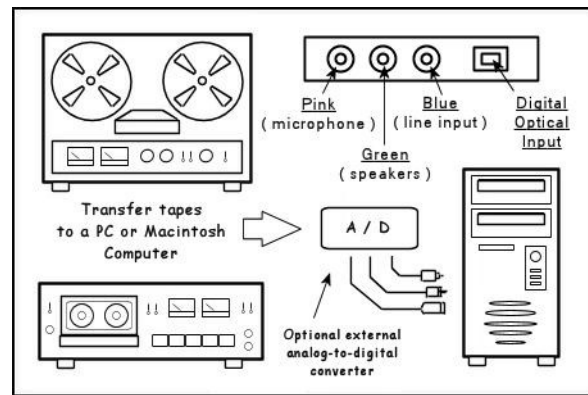
You'll note that in the graphic, there is shown the option of using an external analog-to-digital converter device. Why do this? While it can lead to better quality in the transfer process, you don't have to, and if you like, you might wish to start out with the simplest method of connection, which is to plug the output of your tape machine (or your stereo preamp or receiver) into one of the little mini-phone jacks that are on the back or side panel of most computers.
In the PC world at least, there are almost always three of these jacks. One, colored pink, is for connecting a microphone. Don't connect your tape deck (or other "line level" source, in audio parlance) here, or you will overload the circuitry and create distortion—a microphone has a far lower voltage output than a tape machine! Then there is a green-colored jack, and you'll likely find it's already connected to your computer's speakers. Audio only goes outward from this jack.

That leaves a blue-colored jack, and this is the one you will hook up your deck or preamp's tape output jacks to. Signals appearing at this jack will be converted into digital form by your computer and the software that directs it. You will need a cable that adapts from the standard RCA-type audio connectors in your deck, preamp or stereo receiver to the mini-phone jack. It will look like this:
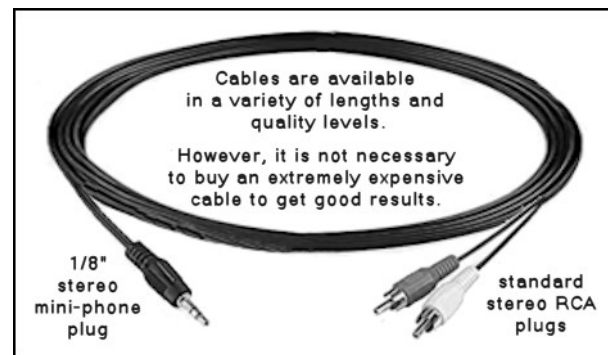
Next, if you do not already have some, you'll need software that your computer will run to enable recording your material on the computer's hard drive, optionally editing that recording, and then copying it to a CD or other reliable medium for future playback or storage. There is a sizable variety of this software out there, and some may very well have already been bundled with your machine. If not, and you wish to watch your budget while you initially experiment, there is a popular freeware program available online called "Audacity".

Audacity has been around for quite some time, and has grown steadily more sophisticated. Used properly and carefully, it can provide very good results. If later on you desire a certain feature or performance aspect, commercial software up to and including professional studio types are always available.

Now to what a typical user interface for recording may look like on your computer screen:
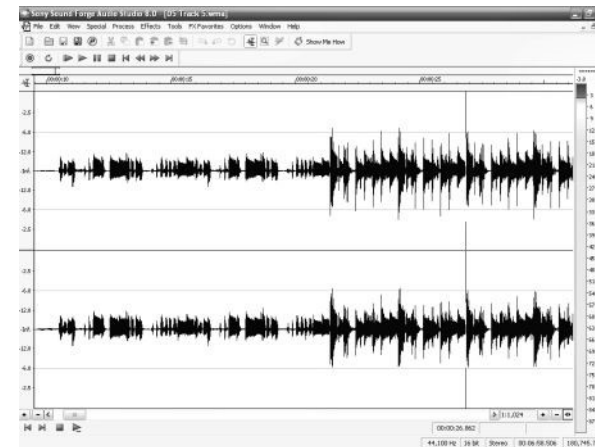
At the top of the screen, as usual, are the varied array of features and commands the software offers to enable the audio recording and playback process. On screen center is an image of the recorded audio waveform, and on the right side (in this instance) are the recording level meters, just like on your tape deck. You'll cue up your tape, start it playing back, and let it run for a bit to get the levels set so the signal is strong enough without "going into the red", or overloading. See? Already a bit familiar!

Once the levels are set, you'll re-start the tape's playback, and then either stare at the screen in fascination or go get a cup of coffee or somesuch if you're bored. Why? Transferring any analog music source to digital form can't be speeded up, sorry, that's the inherent nature of analog. If your tape is, say, 74 minutes long, it'll take 74 minutes to digitize it.

Once you have the recording digitized, you can play it back and listen to it through your computer's speakers or headphones. Now, if you wish, editing will come into play. Why edit? If your recording was one of a commercial release, such as a record album, there may be little to edit, other than removing the dead space between flipping the record over to the second side, or cutting out/repairing a skip or scratch.
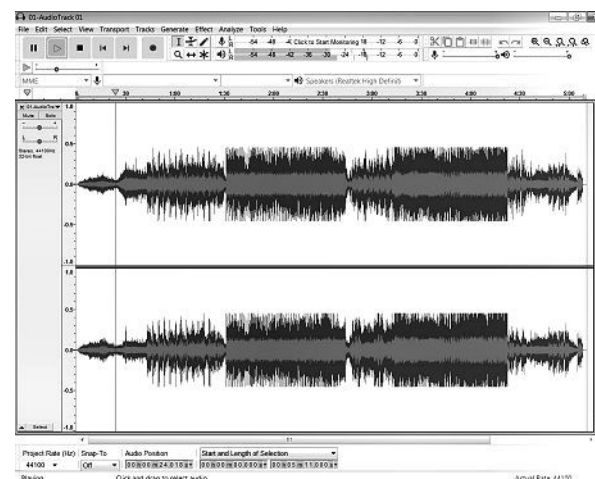
But if the tape is one of a friend or family nature—a wedding, a child's birthday party or graduation ceremony, say—there may be areas of the tape that are only audience noise or other unwanted activity that you can now remove with the software, which is way easier than physically cutting and splicing the tape like in the olden days!

Once you've edited the recording, the remaining option is to transfer it to another type of storage medium, such as a CD. Commonly referred to as "burning" a recordable CD, another piece or part of software directs this operation. Obviously, your computer will need a CD burner drive to do this. These are less common as standard on many newer computers, but can always be added as an external accessory if needed. Costly at one time, they're quite reasonable now. Here's a screenshot of a popular consumer level commercial burner software, "Nero", as an example. In this case, the editor was used to separate the parts of their recording into tracks, which then can be accessed directly, just like tracks on a commercial CD. Handy!
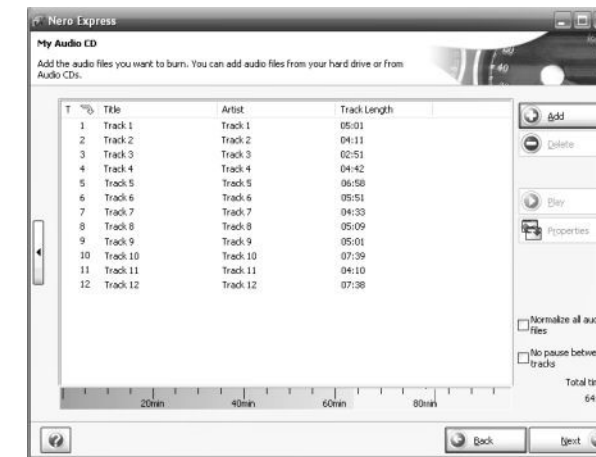
So there we are, that's kind of the gist of it, folks! As I said, if you haven't done this before, be patient. It really isn't that hard once you do it a few times, and many people who have taken on this process find they become fascinated by it, not merely the clever mechanics of it, but the whole preservation of history aspect.

Remember, if you need help, don't forget that it's readily available online, such as in the Audacity community, for example. You are not alone, and I don't mean that aliens are getting ready to beam you up. Until next time...

... beeeeeeoooooooouuuuuuuuuupppp.... (~~blip~~)

Take care,

-- CJ