

The Ministry Of "Helps"

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*1Co 12:28 And God hath set some in the church, first apostles, secondarily prophets, thirdly teachers, after that miracles, then gifts of healings, **helps**, governments, diversities of tongues.*

Helping in the ministry is not all about being center stage in preaching and teaching, or leading worship. There is so much that goes on behind the scenes with needed helpers to make it all happen more smoothly. If there is no background work, there would not be as much front end ministry.

Lake Hamilton Bible Camp (www.lakehamiltonbiblecamp.com) has one of the richest resources of tapes in the country. My vision is to preserve the cassette messages and get them converted to CD, and clean up all those audio messages that have background noise like, hiss, microphone pops, muffled sounding audio, very low, or too high volume. I've only converted a little over 300 tapes now; mostly deliverance teachings. Yet, there are over 2,200 cassette masters listed at Lake Hamilton Bible Camp's website. So I have an endless job, as well as the future eight camp meetings we have each year.

My goal here is hoping you'll catch a vision of a unique niche service you could develop in helping any ministry while working at home on your computer in your spare time.

While most ministries big or small might be recording their services still on cassette audio, most probably have moved on to CD recordings, or even DVD Video which still is a need to enhance the audio too. There is still a big need in converting all those older anointed treasures on cassette to CD. You have probably bought audio CD's that still needs some tweaking. And with your help they could sound more professional sounding.

All these problems can be easily fixed on a basic Pentium 4 computer. You don't need the latest technology to start for just transferring cassettes and editing and saving. But if you have one of those Pentium D's, or one of the new Intel Core 2 Duo computers, you'll just get your work done so much faster when running software filters to fix all these audio problems.

My home computer is just an e-machine which is a Intel Pentium 4, 2.93 GHz. But it has allowed me to convert hundreds cassettes to CD since December 2004. Not only do we list them on Lake Hamilton Bible Camp's website, I figured out how to take these *.wav files and converted them to Windows Media (.wma) so people anywhere in the world can click to listen freely. If your building a website, these *.wav files could also be saved as MP3 so people with those I-Pod compatible devices can down load and enjoy listening to them anywhere too.

Computers today are all about gaming, and hooking up 2-6 speakers where it becomes your personal entertainment system for the back end. Most computers still only have one microphone in-jack. What you really need is to buy a professional sound recording card for a higher resolution recording, especially if your doing anything with enhancing music at your church. Recording the minister can be

saved as a single track (mono) recording, I personally like to save the file in stereo to make CD copies unless I'm uploading it to our web site. Then, it needs to be in (mono) single track as the file size is lots smaller which allows us to have more room to share more audio files for listening online. I'll explain more about this later in detail.

We bought three of the Juli@ cards for our basic recording in the chapel and used for our editing workstation in the camps office and one for me to work at home too. The manufacture for Juli@ is: <http://www.esi-pro.com>. These can be ordered from Tracertek.com too. Tracertek sells the Audiophile 2496 card. There are quite a few of these type audio cards from different manufacturers that would work, like those made by m-audio. I'm just am happy with what I bought.

If you only have a laptop and can't install a physical card into your computer, you can still buy one of those USB powered devices that lets you do the same thing too.

You need software to record and then a fast way to quickly edit your *.wav file. I recommend the home edition of Sony Sound Forge. Cost is only \$69.95. Since it's stripped down, but a lot cheaper then the full version, it lacks some filters, so I use another program strictly made for filtering audio problems.

To transfer a cassette into the computer, we buy those inexpensive Radio Shack models. You might consider buying an extended warranty. The tape head won't wear out in a year, but pressing the button keys hundreds of times might.

I just plug my patch cord bought from Radio Shack into the earphone jack on the player and the other end has two plugs that hook up to the left and right jacks on the back of the computers sound card. Test your cassette out first before recording into the computer and adjust for medium volume. Make sure your software is set to 44,100 Hz, 16 Bit Stereo. Press record on your software, and press play on your cassette recorder.

Remember you have to be there to turn the tape over when it's time. No need to stop recording, unless you want to save side one as a separate file name and then copy/paste side two's file to the end of side one. For me it's easier to make it all one file and just take out the long gap between both sides.

After you save your *.wav file, look at your file at 1:1,024 magnification. The audio should be within the fixed audio lines on screen. Everyone speaks either too soft, or too loud, so it might take you an hour to go through the whole file raising volume in places, and normalizing screaming volume above the lines. This is a tedious, job, and most people either don't have the time, or are not interested in making the minister sound the best they could be.

Transferring a cassette into the computer is done in real time. So if you have a 90 minute tape, it's going to take 90 minutes to play it all in. Then save it to a *.wav file and start editing it with Sony Sound Forge. When I say edit it, I'm not taking anything out of the message itself. I mean you need to take out the long gaps. You can't get 90 minutes of recording and fit it on an 80 minute CD without taking out gaps. Gaps are where the speaker pauses over say 2 seconds. Example, they might say, turn to so and so scripture and then wait several seconds for the people to find the verse. Taking out those long gaps really helps those listening to an audio CD. Why make people wait before the speaker starts up again.

Next, you need to filter your file. When Transferring into your computer, there is always going to be some hiss between the speaking. Not because of the transfer, but usually it's in the cassette your

playing from, especially if it's just a copy of the original master. It's best to transfer from an original master, but that might not be always available to you. Cassette duplicators help to raise the volume in copies made, so usually if there is any background noise in the master it's also raised in the copy too. In viewing your audio file you'll notice that there is a thin line between the speaking. The line might appear to look darker, thick or spotty. That spells noise in the audio. Hiss filters are really not the best for taking everything out. In DC6 they have a "continuous noise" filter. Just highlight a half second and sample the noise. Turn your computer speakers up full and listen. Preview the noise, and compare what it sounds like with what DC6 will produce as a sample finished file. Just use the default correction. Then double click on the whole file and run this filter. DC6 makes a destination file copy. So you can see the old one and also the new filtered file at the same time on your screen. If you like it, then make the new destination the source. DC6 makes a new file name for you. So you always have the original to go back to if needed.

For microphone pops run DC6's Ezclean filter. It's a labor of love to take time and make the master as perfect as possible. This is not about how fast you can do it. You will get your steps down after few several transfers. This can be fun too. I have a saying. "Choose a job you love, never work another day".

DC6 can be ordered from www.Tracertek.com And they have a free demo you can try that allows only 10 minutes of recording to just try it. This program will be able to fix ANY audio problems. The manual is like 400 pages, but all I did was read the first three chapters and I was out of the gate producing quality masters. This is not hard. You will be amazed and excited.

I'm only using just a few of these great filters. But from time to time I run into a different audio problem. Like the echo effect when a minister is speaking in a great hall, or convention. The Ping Pong filter takes the echo out in speech. Got a file that sounds muffled? Click on the 10 channel graphic equalizer and sample a few seconds of audio. Choose the filter for raising Treble and use the default setting, and run the filter. All muffled sound will now sound so nice and clear. DC6 even has a 20 channel graphic equalizer for enhancing your music too. Wireless microphones have a problem with the speech sounding too sharp. Use a warming a filter to make it sound better. There are hundreds of filters in DC6.

Want a better way to transcribe an audio message to make a booklet? With DC6 you can run "Stretch & Squish". It's a speed change filter. Its primary purpose is for Forensics applications in which a spoken word recording needs to be slowed down for transcription to the written word. Want to restore an old record that is terribly scratched. When you play it into your computer, and save to a *.wav file, just run the scratch filter and all those scratch sounds will be totally gone. It's truly amazing.

Over time, I began to have trouble with my right arm. I had pain in my shoulder from hours of clicking taking out gaps. So I began looking for software again to help me with this problem, because I got to a point where I had to leave this alone for days at a time.

Adobe makes a program called, "Audition". This program is expensive for the latest version 2.0, but I'm using version 1.5 and one can get this a lot cheaper on e-Bay (about \$30-100). Audition is really packed full of features for music lovers, and might be everything I'd ever need if I knew about it starting out. But right now, all I use it for is running the program and loading *.wav file and then go to "edit" and click on delete silence. I just tell it to look for gaps over 2 seconds and it does it's job, and it sounds like normal speech and always fits on one CD. I'm so happy not to be in pain anymore. This program also has fast edit, and has quite a few filters in it as well, but so far nothing compares to what DC6 can do, so I'm using all these programs.

Also, don't go to the limit of your 80 minute CD, try to make your .wav file under 79 minutes. You're going to need some space to add what you want to say in the beginning of the file as a head. The persons name, date, where given, etc. Also at the end of the message add, "This is the end of this CD" So try and keep your file as close as you can to 79 minutes for your 90 minute cassette, or you'll end up having to make two CD's of one tape. It does happen, but not if I can help it.

For making these little .wav files for my heads, I just open Windows word pad and type what I want to say and record a little .wav file and save it as "EndOfCd.wav", etc. Then I just copy/paste this to end of every CD master I make. Saves time!

Another small utility program I bought too is "Wave Breaker" from www.blazeaudio.com We we're getting all kinds of little complaints early on when we ended cassette recording and went to CD only. Since I was saving one big *.wav file to burn a master the problem came when playing it. You needed to hit pause if you wanted to stop it and then continue where you left off. But if you instead hit the stop button, you are forced to start listening to it from the beginning all over again. I'm told the same thing happens if you play one in a car. If you turn your engine off, you got to start over again from the beginning.

Wave Breaker takes an audio file, and detects smaller silent places in the file, and breaks the file into smaller files automatically between those silent places. This is what you need for splitting long speeches into segments. You can't even tell where one track ends and the next one starts, it's that smooth. And in your player if you pressed stop. You can still use the skip track feature on your player to better find where you left off. This program will cost you only \$10.00. so when your ready to burn a master. Run this program, and then use whatever software your using to copy and burn to make a final CD. I'm using Nero 7.

Do not delete your original finished *.wav file once you burn a master copy. Instead save it in a compressed windows media file format on your hard drive. Example a 700 meg file can be compressed down to 50 meg, using Sound Forge and saving in Windows Media 9 at 128kbps 44,100 Hz Stereo. I have a second drive for just storing my masters. They can be loaded and saved back to a big *.wav keeping the original quality in your finished restoration.

I accidentally dropped one of my masters and scratched it, and when I put it in our CD duplicator it gave me a error - bad. I'm so glad I'm saving my masters on my second hard drive, or I would have to play this cassette back in all over again. Get yourself a USB backup hard drive and make sure you don't just store your masters on your computer either. These drives can be unplugged and stored in a safe place till you need it again to back up another file.

If your ministry has a website you could save your audio files as Windows Media 9 to 8,000 kbps, 16 bit, mono. The quality won't be as good as stereo, but clear enough for anyone wanting to listen online. The file size will only be around 4-5 megabytes. If you take the time and take those gaps out it will make your file size smaller. Also saving in compressed MP3 is going to make the file size a little larger. I can post more in Windows Media then in MP3 for our limited room till we get more space for now.

On my home Pentium 4 computer using this 7200 RPM drive can take 3-4 minutes to run certain filters in DC6. If you ever upgrade to a faster computer regardless of what you buy, please consider buying a Western Digital, Raptor 150 gig, 10,000 rpm SATA drive for at least your C: drive. If you can afford it, buy two of them, and even consider configuring your system as Raid 0 stripping. These drives are now being installed on higher end computers for gamers. They need speed, and so do we if we're going to be more productive for the Kingdom of God for audio restoration and now video

rendering. Audio filters should only take seconds, not minutes to run. But I guess we need to learn some patience too.

If you're going to buy a new computer my recommendation is a Core 2 Duo, desktop (business model), at least a 2.4 Ghz processor with 4meg Cache, 2 gig of RAM and at least one 150 Gig Raptor drive, running XP Pro and if you edit video, at least a 256K Graphics card. Cost is about \$1,200.00 This computer will give you years of service and will give you an upgrade path for anything that will come down the pike for a long time to come. Enough said.

We have so many new people coming to camp meeting that found us at LakeHamiltonBibleCamp.com and clicked to listen to these audio messages that's online to freely enjoy. These we're all just cassettes in a box, that I transferred to the computer and now make some of them downloadable for anyone in the world to come and listen and get delivered and set free.

Your part is just as great as the person who spoke this originally. Duplicate yourself and teach others how to do this. Get behind your pastor, teacher, or layman who is called of God to minister. Put your computer to work for the Kingdom of God and be a blessing and you will find a wonderful niche service, as you serve the Lord in the Ministry of Helps.

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