Curious About Speech Recognition Software?

In the spring of 1996 I was about to complete my masters thesis when I was diagnosed with carpal tunnel syndrome. I was no longer able to type and my options at that time were quite limited. I now associated sitting down and working on my thesis with pain. Any kind of computer work generated pain.

I began to look into speech recognition software. I had friends, with the same injury, who had managed to continue working on computers using speech recognition software. In 1996 the only products available were discrete speech products which require the user to dictate one word at a time with unnatural pauses between words. I nevertheless completed my thesis using the software and became interested in the potential it held.

Today, there are a number of affordable speech recognition software products that provide relief for overworked hands. In the past year speech recognition software has come a long way. This is mostly due to the Pentium III and the new higher speed processors adept at making the complex computations required by today's speech recognition software. My preference of speech recognition software is Dragon NaturallySpeaking Professional, probably the best known product on the market today. The accuracy with this product, when used with a processor that has 450 megahertz or greater, is really quite impressive. On the average, after dictating two paragraphs, I have zero to four mistakes. I dictate at speeds of approximately 100 to 150 words per minute.

Increased recognition accuracy is just one of the improvements. This software trains to my voice in approximately five to six minutes. I improve my recognition accuracy by utilizing a feature of the software called the Vocabulary Builder. By loading text files that I have previously written into the Vocabulary Builder, I input and train any frequently used words, abbreviations or acronyms. This feature also scans pre-existing documents that I've written in order to analyze my unique syntax and grammar. The program then isolates frequently paired words in order to predict my word choice, thus improving overall recognition accuracy. This is great for highly technical terminology and text or database entries that require repetition of names and addresses.

The professional version of Dragon NaturallySpeaking also has a feature that allows the user to create macros or shortcuts. You can assign a voice command like "Insert Date" which would execute a macro that inserts today's date wherever the cursor is. You can also create text macros that type out any frequently used text-for example a closing paragraph and a signature line.

Another product that I have been using a lot lately, is Dragon's Mobile Recorder. This digital recorder has 40 minutes of memory, and 4 folders of storage that hold up to 99 files each. With the mobile recorder I can dictate a first draft away from the computer, and then plug the mobile recorder into the computer, download that file and transcribe it

automatically. The recognition is similar to what I get with Dragon NaturallySpeaking Professional. If there are any words that have been misrecognized, I can highlight them and click on a playback feature which will playback a recording of my voice dictating those words. I don't need to listen to the entire recording to determine what I said.

With adequate training, editing is easier by voice than by hand. I find that I can make corrections to a proofread essay without looking at the computer very often. Of course, knowing the proper commands is essential. Being able to navigate around a document, cutting and pasting, inserting words, changing point size or fonts, bulleting or numbering, increasing or decreasing margins or indentations are all very simple by voice, if you know the commands.

If you have already priced or looked into Dragon NaturallySpeaking products, you may have wondered why Dragon NaturallySpeaking Preferred is so much less expensive than the professional version. The difference here is primarily the ability of the Profession version to write macros, a higher quality microphone, and slightly better recognition accuracy. Also be forewarned that the system requirements they boast about on the box are not accurate. You will need a Pentium II with 300 megahertz or better. You also need 128 MB RAM to operate the software effectively. A high-quality sound card is also important-Creative Labs Sound Blaster sound cards are probably the best.

You may have also heard of Lernout & Hauspie's VoiceXpress, a very affordable product that includes a macro feature at no extra charge. This product features very good recognition, though, not quite as good as Dragon NaturallySpeaking.

IBM's latest speech recognition software, Millennium, is receiving better ratings than their previous version. I still feel, however, that NaturallySpeaking is the better product, especially if you are interested in working as "hands free" as possible.

One thing to consider if you would like to start using speech recognition software: training is very helpful, if not crucial. Most people who do not receive training can hope to use the software at only about 50 percent of its capacity. The software is much more powerful and capable than most people realize, and the instructions that come with the software give cursory explanations on how to use it. The voice profile created while speaking to the computer can be corrupted by correcting misrecognitions improperly. Training will help you develop the best profile possible, teach you how to use the macro features, and introduce you to many helpful editing and voice commands that are not available elsewhere.

Whether or not you are already feeling some pain in your hands, arms, neck or shoulders, if you are a writer, you should already be considering speech recognition software. Looking back on the past four years, I regret not starting to use speech recognition software sooner. The more time your hands are at the keyboard, the greater the risk you have for injury. If you are already feeling pain, the more you type the worse the pain will become. According to OSHA each year 1.8 million U.S. workers

experience work related musculoskeletal disorders. About one-third of these injuries (600,000) are serious enough to require time off work. Work related musculoskeletal disorders account for one-third of all workers compensation costs each year because these injuries can require prolonged recovery time.

For writers, the transition from typing to dictation is a difficult leap. Most writers are decent typists: 50 to 60 words per minute or better. Making typing an automatic comfortable task-- until you start to feel pain. Nevertheless, if writing is your vocation or your passion, you will find a way to continue writing. Fortunately, speech recognition software has been my solution and is certainly an option worth considering.

Bio:

Shelley Gage is the Coordinator of Sales and Training for Zephyr-TEC Corp. a company that consults, trains and integrates speech recognition software into the workplace. If you would like more information about speech recognition software call (800) 520-5373 or visit the Zephyr-TEC web site at www.zephyr-tec.com.