

## **What is Different About Custom Speech USA™ Recognition Software?**

Many people have tried speech recognition for dictation, but have given up in frustration. It often takes days, weeks, or months to train successfully to a high level of accuracy. Even after hours of training, the advantages from automated transcription are often offset by the time required to edit and correct the mistakes made by the computer.

Custom Speech USA, Inc. products are designed as add-ons to popular, off-the-shelf Dragon NaturallySpeaking and IBM ViaVoice speech recognition software. Purchasing the Custom Speech USA™ add-ons will definitely enhance your speech recognition experience.

First, off-the-shelf Dragon and IBM products are designed primarily for dictating real time into a PC. As you dictate, the computer transcribes what you say, and the results appear on the monitor. There are also some limited capabilities for dictating into a handheld recorder and later transcribing the recorded audio on your local PC. With Custom Speech USA™ software add-ons, you will also be able to dictate into a microphone, handheld recorder, Palm Pilot, portable PC, or telephone. A server will also be able to batch transcribe the audio at a local or remote site. This means that multiple dictations can be transcribed by the server, and later automatically returned to you for your review and approval.

Second, with most current speech recognition systems, the dictating user has to read a 5-30 minute passage into the computer before the software can accept audio for transcription. This is called "enrollment" and initializes the system to recognize the user's voice. With Custom Speech USA™ software, you do not have to "enroll" before the server batch transcribes your dictation. Just start dictating. The computer will transcribe what you say, whether it has heard your voice before or not. In fact, you do not even have to submit the dictation in the correct audio format. Custom Speech USA™ software does all this for you, automatically converting the audio into the proper ".wav" format required by the Dragon or IBM speech engine for processing.

Third, Dragon and IBM off-the-shelf products now both offer "delegated" correction by a human editor, but the files are not easily sent across the internet because they are so large. Generally speaking, each minute of dictation results in about a megabyte of audio and text. After 3 or 4 minutes of dictation, it is not practical to send the large files as an email attachment, especially if the transcriptionist has a 56K or slower modem, or if an internet service provider limits the size of email attachments. As a result of these "bandwidth" constraints, review and correction must be performed by a correctionist on the same computer used by the dictating author, or on a PC within the same local area network. Custom Speech USA™, however, uses a patent pending process to compress the file size, making it a snap to send locally or by email.

Fourth, a major problem with conventional speech recognition has been the long time required to correct the speech recognition output. To make the editing process more efficient, SpeechMax™, which looks like a word processor, but is more, uses the text from one speech recognition engine to find the errors in the other. Since much of the text output is correct and identical, the correctionist can concentrate on listening to the "differences," which often reflect the major errors made by Dragon or IBM. As a result of this "error-spotting," it is estimated that with well-trained speech recognition systems, the correctionist can listen to 10% or less of the dictated audio.

Fifth, traditional speech recognition systems rely upon corrections made by the speaker or editor to train the system. Custom Speech USA™ has taken this a step further. Instead of just a single round of correction, the "speechtrainer" server replays the audio and transcribes the text many times using Dragon or IBM, repeatedly correcting the text. With each repetition, the software "gets smarter" and more reliable with subsequent dictation. Instead of an individual spending hours in front of a PC and repeatedly correcting the same mistake many times in

different dictations before the PC “gets it right,” a machine does this “in the background,” resulting in more rapid learning by the speech engine. The PC-trained speech files can also be distributed for use on local computers with Dragon NaturallySpeaking or IBM ViaVoice for dictation by speakers who will correct their own dictation.

Sixth, off-the-shelf Dragon and IBM products are designed primarily for standalone use. As mentioned, the speech files trained using the Custom Speech USA™ software can be distributed to local PCs for dictation and correction by individual speakers. Custom Speech USA™ speech recognition software add-ons are also available as integrated workflow solutions. Using the Command!™ file manager, document retrieval, and time tracking system, you can route and manage dictation and text files on a local network or across the internet. But Custom Speech USA™ software is for more than just speech. It is possible to integrate its advanced speech processing applications with workflow for a paperless office, electronic medical record, and countless other applications. Flexible and scalable, the document management system can be used by the small office or enterprise, or by manufacturers, banks, insurance companies, hospitals, law firms, or the police.

These “speech solutions that work” can result in greater acceptance and more rapid adoption of speech recognition technology. Dragon NaturallySpeaking and IBM ViaVoice work more like purchasers expect them to, reducing the frustration often associated with use of these products. Not only is the software of potential benefit to many mainstream users, but it may be of particular assistance to those with repetitive stress disorders, learning disabilities, or other medical problems. The benefits of reduced training and correction time may be especially important to these persons because they need to rely so heavily upon speech recognition. For them speech recognition is not a luxury, but a necessity.

Isn't it about time that you started using speech recognition more in your business or office? The technology is here. If you want to talk to your computer and have it type out what you say, this is no longer science fiction, but a practical reality.

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We teach computers how to listen®

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