

Nuance Dragon SDK Client Edition

Speech-enable Windows applications.

Integrate voice capability into virtually any Windows application whether you create software for captioning, court reporting, gaming, assistive, productivity, design or graphics, chat, home automation and more!

Dragon SDK Client Edition (DSC) includes everything needed to add cutting-edge speech recognition technology to voice enable any Windows-based application. The tools, libraries, and ActiveX components of the SDK make it possible to integrate the advanced speech recognition capabilities of Dragon into any Windows application.

Developers can quickly and easily create speech-aware applications “from scratch” or add speech recognition to existing applications, such as applications for automatic closed captioning or court reporting. The Dragon speech engine allows end users to enter, edit and correct text by voice, command and control the application by voice and transcribe from audio recordings.

Developers have the flexibility to embed Dragon speech recognition technology directly into existing or new Windows applications, or develop hooks to speech-enable

applications by leveraging Dragon purchased separately or already on a PC.

Speech-enable applications to improve productivity

Amazingly fast and accurate dictation

Use Dragon to talk up to three times faster than you can type into nearly any Windows-based application with up to 99% accuracy right out of the gate. Developers can customize specific requirements and leverage the full feature set of Dragon, including voice correction, formatting, and dictation playback for fast editing, as well as create new user profiles (with or without end user interaction) using Dragon’s New User Wizard.

Dragon provides a personalized voice-driven experience storing personal profiles that deliver increasingly accurate results the more you use it.

Custom vocabulary

Beyond the extensive Dragon vocabulary language model and files that come standard with DSC, developers can create custom vocabularies to tailor the nomenclature and words to specific industries, companies, departments

DSC gives you flexibility to:

- Add accurate and fast dictation or transcription, to speech-enable your application, keeping your own user interface
- Create your own custom commands or custom vocabulary
- Integrate Dragon microphone features, including using the built-in PC mic
- Leverage features for real-time closed captioning

What’s new in DSC:

- Faster and more accurate
 - Enhanced for closed captioning
 - Simplified profile and audio setup
 - Support for internal mics
 - Notification if audio quality drops
 - .m4a transcription file support
 - Canadian English support
 - Updated application and OS support
-

or job roles. GetCustomWords is a command-line utility that retrieves a list of custom words from a user's vocabulary and stores the words in a file, facilitating the creation of a custom vocabulary for users.

DSC supports English (including variants for US, UK, Australian, Southeast Asian, Indian and -- new in DSC -- Canadian), German, French, Italian, Spanish and Dutch. Other vocabularies provided in DSC are General Vocabulary, Empty Dictation (except in Australian, Southeast Asian and Indian), and Commands Only (available in US and UK English only).

Easily create custom voice commands

Voice commands enable end users to perform actions by speaking into the microphone rather than (or in addition to) using a keyboard or mouse to automate repetitive or manual processes to streamline tasks and workflows. Developers can code their applications to respond appropriately once a specified sequence or pattern of words is recognized as a command using the DgnVoiceCmd object, making it easy to create a short list of literal commands.

Microphone flexibility

The DSC ActiveX controls include a microphone button object (DgnMicBtn) that provides programmatic access to the microphone and a microphone button (with the VU meter) that developers can display in the application's user interface. Dragon supports automatic microphone detection as well as multiple audio device types within the same profile, allowing the user to easily switch to another supported microphone while keeping all personalized preferences for accuracy and formatting.

New in DSC is support for the built-in microphone on many of the latest laptops—accuracy with no headset needed—for optimal flexibility and convenience. In addition, if the audio quality drops for any reason, the application can receive SNR (Signal-to-Noise-Ratio) feedback from the engine and can choose whether to notify the user to check their microphone, connect another microphone or move to a quieter location, so they continue to get the highest recognition accuracy when using your application.

Display notifications

Developers have the option to display a status bar message to let users know what mode (i.e. dictation, spelling, numbers, command, etc.) is currently active. DSC also has the ability to notify an application if the “spell dialog” box is open or closed.

Text-to-speech

Applications can output text in the form of speech using a voice text object and the text-to-speech engine provided with DSC, or any other SAPI4-compliant TTS engine the developer provides. Audio playback of text supports applications to simplify proofreading or multi-tasking needs.

Easily transcribe audio files

Application developers have flexibility in controlling the transcription workflow to suit their application needs, such as transcribing audio files into application windows or transcribing audio files in text and document files. DSC also includes the Audio Transcribe Folder Agent, a GUI tool that automatically transcribes recorded voice from audio files into user-specified directories. Formats supported include .wav, .wma, .mp3,

.dss and .ds2 file formats as well as (new in DSC) .m4a.

Great for real-time closed captioning

DSC includes features that make it ideal for real-time creation of closed captioning text for broadcasting or similar applications. Since Dragon creates a personal profile with all customizations stored and tailored to correctly capture subject matter terminology accurately, a captioner can speak and produce fast and accurate text. The developer has the flexibility to instruct Dragon to show intermediate results instead of waiting for the speaker to pause, enabling a consistent display of text on the screen for the best viewer experience.

New in DSC, memory usage of closed captioning text is dramatically reduced, optimizing memory consumption and increasing captioning performance particularly during long real-time formatting sessions.

Includes everything needed for rapid deployment

- SDK runtime: Developers can install the DSC SDK runtime in a network environment, pushing the software application out to client computers without having to install it separately on each client system. The DSC includes a native Windows installer (MSI) that lets developers both install across a network to multiple client machines and do customized installations. The installation administrator creates an image of the installation program on the server, and then configures the server to automatically push the application onto the client systems. Network installations

can also be configured to modify, repair or remove an existing installation.

- Command-line and GUI Tools: DSC includes a Data Distribution tool and an NSAdmin tool that enables developers to deploy new words, customized vocabularies, or commands, and make them available to all user profiles on a particular Dragon installation.

Developer environments

The Dragon SDK Client Edition (DSC) provides developers with tools, including the Dragon APIs, to integrate speech recognition capabilities into applications. When programming in the DSC environment, developers access Dragon's ActiveX controls using the Dragon APIs. Developers can program in any language that ActiveX control supports. However, officially supported environments include Visual Basic, C# and Visual C++.

Comprehensive sample code and detailed documentation is available. In addition, the Dragon Developer Support Program offers:

- Direct answers to development questions from Dragon Developer Support engineers via Web form
- Access to Dragon SDK TechNotes and FAQs
- Access to minor release software updates as they become available for in-house testing and prototyping

System requirements

- RAM: Minimum 2 GB for 32-bit Windows 7, 8.1 & 10; 4 GB for 64-bit Windows 7, 8.1 & 10 and Windows Server 2008 R2 & 2012
- CPU: Intel® dual core or equivalent AMD processor. Faster processors yield faster performance

- Free hard disk space: 8 GB if installed from the DVD, 16 GB if you copy the DVD to your hard drive and then install
- Supported operating systems: Windows 7, 8.1, 10 (32- and 64-bit); Windows Server 2008 R2 & 2012
- Internet Explorer 9 or higher or the current version of Chrome or Firefox
- An audio input device capable of supporting 16-bit recording
- A DVD-ROM drive for installation (or Internet connection for product download)
- Built-in microphone or a Nuance-approved microphone. Some older devices are no longer supported. See support.nuance.com/compatibility for more information.

Note: Does not support dictation into Electronic Medical Record (EMR) systems. For EMR support, please use Dragon Medical Practice Edition.

What's new in DSC

For a complete list of "What's New" features for developers, please refer to the Dragon SDK Client Release Notes.

Even more accurate and faster than ever

- Up to 15% more accuracy than Dragon v12 "out of the box" (and up to 26% over v11)—using the latest speech recognition engine and new acoustic models, means that Dragon gets you, and you get things done, faster than ever
- Faster processors yield faster performance, which means Dragon continues to enhance its ability to choose models and parameters depending on your computer's resources to deliver the fastest performance

Enhanced for closed captioning applications

Memory usage during long real-time formatting sessions of closed captioning text is dramatically reduced, enabling better performance.

Easier than ever to setup, including simplified audio setup

The entire profile creation process is now shorter due to the improved "out-of-the box" accuracy in DSC. Within the Dragon New User Wizard or Audio Setup Wizard:

- Reading four minutes of text is no longer necessary—DSC is already accurate immediately. You can also go back later to read text to further train Dragon if necessary.
- You no longer need to adapt vocabulary based on documents and emails during profile creation. If you wish to launch the analysis later, you have that option.
- The best audio devices available are automatically detected—DSC returns the list of the recommended devices ordered by preference
- You have more flexibility with respect to creating a new dictation source or a new speaker based on the specified microphone
- The microphone check takes a few seconds with just one screen of easy-to-read text

Now use the internal mic

Dragon now supports microphones built into many of the latest laptops for optimal flexibility and convenience. Users are now free to dictate documents and speak commands directly into a laptop without using a headset.

Notification if audio quality drops

If the audio quality drops for any reason, you can now choose whether to set a new

DgnRegisterConstants value to monitor the SNR value for utterances. This will allow you to notify the user to take action such as to check their microphone, connect another microphone or move to a quieter location, so they continue to get the highest recognition accuracy when using your application.

Additional transcription file format

.m4a format is now supported (in addition to .wav, .wma, .mp3, .dss and .ds2).

Canadian English

Dragon now offers support for Canadian English vocabulary.

Updated application support

Dragon now supports the following with Full Text Control, for developers who embed specific elements of these applications into their own application:

- Office 2016
- WordPerfect X7
- Open Office Writer 4.1

Updated OS support

- Support for Windows 10
- The Remote Desktop Connection feature which lets you dictate from a computer on which Dragon is not installed is now supported for Windows Server 2012

About Nuance Communications, Inc.

Nuance Communications is reinventing the relationship between people and technology. Through its voice and language offerings, the company is creating a more human conversation with the many devices, electronics, apps and services around us. Every day, millions of people and thousands of businesses experience Nuance through intelligent systems that can listen, understand, learn and adapt to your life and your work. For more information, please visit www.nuance.com.

