



NUANCE

The experience speaks for itself™

REALSPEAK™ SOLO 4.0

BENEFITS OF REALSPEAK™ SOLO 4.0

- Attract more customers with high quality, multi-language embedded Text-to-Speech (TTS) services that interact one-on-one with the end user, thereby enhancing the overall value of your automotive device, banking or retail kiosk, electronic game, telematics, or other solution.
- Extend your offerings to include user-friendly conversational applications that incorporate the market's most natural sounding speech output, thanks to RealSpeak™ Solo 4.0's unique and powerful concatenative synthesis techniques.
- Drive your brand throughout your voice services with a customized RealSpeak™ Solo 4.0 voice optimized for the target end user market.
- Lower development costs and accelerate time-to-market of conversational applications with RealSpeak™ Solo 4.0's application-optimized email and postal address processors.
- Expand your market reach by leveraging RealSpeak™ Solo 4.0's robust portfolio of languages and voices to deliver embedded TTS applications that meet the specific needs of local markets across North America, Europe, and Asia.
- Streamline development and accelerate time-to-market by leveraging one TTS engine—

scalable from 8 to 20 MB for embedded and automotive applications and 30 or 60 MB for multimedia applications—for a wide range of deployments requiring high quality speech output.

- Take advantage of Nuance's leadership in multimodal applications that combine both speech recognition and a visual display on a device to create a powerful user interface.

PRODUCT DESCRIPTION

RealSpeak™ Solo 4.0 software from Nuance is a text-to-speech engine designed for optimizing conversational applications for the embedded, mobile, and automotive markets. TTS, also known as speech synthesis, takes text as input from a variety of sources databases, email programs, Short Message Service (SMS), and more and converts it into natural sounding speech output in automotive navigational systems, electronic games, announcement systems, banking and retail kiosks, mobile devices, telematics, and many other end-user applications. Because RealSpeak™ Solo 4.0 converts text into speech delivered in an unparalleled choice of 22 languages and over 30 voices, customers can deliver conversational applications that attract and satisfy end users across the globe.

Providing exceptionally high quality TTS across a range of footprints, RealSpeak™ Solo 4.0 scales from 8 to 20 MB for embedded and automotive applications, and up to 50 MB for desktop applications, making it ideally suited for a wide range of deployments where superior speech output is a critical requirement.

RealSpeak™ Solo 4.0 is proven to deliver remarkably natural sounding synthesized speech. As a result, RealSpeak™ voices can be seamlessly intermixed with pre-recorded audio or used in place of recorded voices, accelerating application development, reducing deployment costs, minimizing risk, and increasing branding and personalization opportunities.

To maximize the voice advantages that RealSpeak™ Solo 4.0 provides, Nuance offers a complete service to develop unique, customized voices that can drive your corporate brand across all your voice services from

directory assistance to customer care. From voice brand consulting, through project management, voice development, testing, delivery, and support, Nuance delivers a comprehensive, timely, affordable, and proven tool to strengthen the corporate image you present to end users.

Designed to run on Windows and WinCE, RealSpeak® Solo 4.0 can be easily ported to a wide range of other operating systems and processors, enabling customers to perform TTS development in their chosen environment. In addition, Nuance offers a range of development tools and services to assist customers in the design, implementation, and testing of RealSpeak® Solo 4.0 TTS applications.

Language Support

- US English
- UK English
- Australian English
- Indian English
- North American Spanish
- Castilian Spanish
- German
- European French
- Canadian French
- Netherlands Dutch
- Belgian Dutch (Flemish)
- Danish
- Swedish
- Norwegian
- European Portuguese
- Brazilian Portuguese
- Polish
- Russian
- Japanese
- Cantonese
- Korean
- Mandarin

SYSTEM REQUIREMENTS

Windows Requirements

- Intel Pentium-based PC (266 MHz) or higher
- 64 MB RAM
- SoundBlaster 16-compatible audio device
- Windows 98, Windows Me, Windows NT 4.0, Windows 2000, or Windows XP

WinCE Requirements

- Microsoft Embedded Visual C++ 3.0 or later
- Pocket PC 2003
- Arm Compatible Processor (Strong Arm, Xscale, S3C2410)
- WinCE Version 3.0 or later
- The full speechbase versions are not included in WinCE

MEMORY REQUIREMENTS

Required Disk Space (Average)

Frequency vs. Footprint	Small Reduction	Medium Reduction	Full Speechbase
11 kHz	8 MB	12 MB	30-40 MB
16 kHz	10 MB	16 MB	--
22 kHz	12 MB	20 MB	> 60 MB

Required RAM Memory Usage (Average)

Frequency vs. Footprint	Small Reduction	Medium Reduction	Full Speechbase
11 kHz	4 MB	4.5 MB	8 MB
16 kHz	4 MB	4.5 MB	--
22 kHz	--	--	8 MB

SOLUTION SERVICES

Nuance offers a wide range of solution services to its customers and global partners to help them achieve maximum benefit from their RealSpeak® Solo 4.0 applications. These optional services include:

Custom Voice Development—creation of special custom voices that enable customers to present a unique, consistent voice brand to end users throughout their conversational TTS applications. Nuance's custom voices can be optimized for many dedicated application areas, including navigation, virtual characters in electronic games, and directory assistance.

Porting Services—porting of RealSpeak® Solo 4.0 applications to customers' dedicated hardware platforms and operating systems.

Application Tuning—programming support to tailor RealSpeak® Solo 4.0 application features or performance to meet the needs of specific customers and/or their end users.

FEATURES/BENEFITS

The Most Natural Speech Output Available

RealSpeak® Solo 4.0 uses concatenative synthesis techniques, which means that it selects small segments of recorded speech from a database and joins them together to create the output speech. Through its use of human speech, intelligent unit-selection algorithms, and unique front-end processing capabilities, RealSpeak® Solo 4.0 is able to produce clear, intelligible, and natural-sounding speech. As a result, end users experience voices that are consistently pleasant, warm, and friendly.

Multiple Language Support

Nuance is committed to enabling delivery of best-of-breed conversational applications throughout the world. Supporting 22 languages and over 30 voices, RealSpeak® Solo 4.0 allows your company to deploy conversational applications across many countries, and even supports multiple languages within a single application. Voices with bilingual capabilities are also available in product and custom voices.

Language Identifier

To further improve your deployment of TTS languages, RealSpeak® Solo 4.0 delivers a language identifier currently available for 11 Western languages that enables your application to automatically select the best language engine based on its analysis of the text input. Several sizing options are available to accommodate embedded and desktop applications.

Advanced APIs

RealSpeak® Solo 4.0 simplifies development by supporting native and Microsoft SAPI 5 APIs. The advanced APIs support customizable dictionaries and pronunciations, as well as volume and rate adjustments.

Custom Voice Availability

Thanks to our efficient voice-building process, Nuance can rapidly produce a high-quality custom TTS voice for your RealSpeak® Solo 4.0 application. Nuance has extensive experience and expertise in creating domain-specific custom voices that have enabled customers across the globe to present their own unique voice brand. Your custom voice can be based on any voice you select and can be optimized to suit your specific target application.

Smart Text Handling

Powerful front-end processing enables intelligent handling of ambiguous text input, numbers, or abbreviations (examples: Dr., St., or WHO), resulting in more accurate output. In addition, developers can easily insert tags to create pauses, customize word pronunciations, or specify the interpretation of certain numeric sequences to achieve more natural and intelligible speech output. What's more, RealSpeak® Solo 4.0 intelligently processes MIME and RFC822 emails to read the essential information to recipients in a pleasant and easy-to-understand manner, while a special tag improves the reading of formatted addresses a task that was previously problematic for TTS systems.

Multiple Layered Dictionaries

For increased accuracy and quality, RealSpeak® Solo 4.0 allows developers to customize TTS output for specific business and application tasks using dictionaries that can be populated with application-specific words. RealSpeak® Solo 4.0 comes with an intuitive user dictionary editor allowing application developers to customize and maintain their own dictionaries.

Superior Control

RealSpeak® Solo 4.0 gives application developers control over speaking rate and volume, and supports an exception dictionary for handling text input not included in the multiple standard layered dictionaries. These capabilities empower developers to deliver high quality, user-friendly conversational applications that are ideally suited to the target end-user markets.

Easy Deployment

RealSpeak® Solo 4.0® supports a number of APIs, including the RealSpeak® Solo® API, the Speechify® Solo API, an ActiveX control interface, and SAPI 5 to maximize deployment options for new customers and to provide backward compatibility for existing RealSpeak® and Speechify® Solo users. Full support for the embedded <audio> tag enables seamless mixing of recorded audio and TTS within a single application.

ABOUT NUANCE COMMUNICATIONS, INC.

Nuance is the leading provider of speech and imaging solutions for businesses and consumers around the world. Its technologies, applications and services make the user experience more compelling by transforming the way people interact with information and how they create, share and use documents. Every day, millions of users and thousands of businesses, experience Nuance's proven applications and professional services. For more information, please visit nuance.com.

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