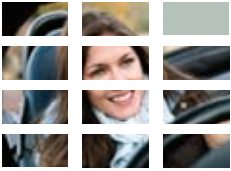


SVOX  
Automotive  
Speech  
Solutions



# SVOX Automotive Speech Solutions

## Designed for embedded applications

SVOX Automotive is a complete set of speech products and solutions for embedded automotive applications. OEMs, Tier Ones and service providers use SVOX Automotive to enable rich and flexible speech user interfaces in various in-car infotainment and telematics systems.

SVOX Automotive solutions offer a unique combination of high quality and suitability for embedded automotive environments. The SVOX winning formula has emerged as a result of our deep understanding of the industry needs gained through successful cooperation with OEMs and Tier Ones on numerous high-profile projects. Customers choose SVOX because it is more than a speech solutions supplier – it is an innovation partner focused on the customer's success.

## SPEECH RECOGNITION

### Polyglot, Accurate

SVOX Automotive ASR allows customers to enable reliable and accurate Automatic Speech Recognition in their automotive products. Specifically tailored for embedded automotive use and with a rich choice of languages covering all important markets, the solution is distinguished by a unique polyglot capability – recognition of words and phrases originating from several languages. Superior recognition rates in high-noise automotive environments are achieved through the use of advanced noise reduction techniques.

### Portable, Scalable

Available in a wide variety of footprints and configurations, SVOX Automotive ASR can scale from basic in-car telematics devices to powerful infotainment systems – all using the same, uniform base technology. Porting to various embedded environments is straightforward thanks to platform-independent, modular architecture.

### Technical specifications

All values in the table are approximate, exact values differ depending on the platform.

	SVOX Automotive ASR Standard	SVOX Automotive ASR Advanced
Code size, ROM (ASR engine)	700 KB	800 KB
Generalist HMM, ROM (per language)	200 KB (80 KB compressed), 7,500 prototypes	500 KB (200 KB compressed), 20,000 prototypes
Digits HMM/ spelling HMM, ROM (per language)	140 KB/140 KB (60 KB/60 KB compressed)	
Vocabulary and grammar, ROM (per language)	15–200 KB (control of small navigation systems)	2 MB (complex dialogues in high-end infotainment systems)
Vocabulary and grammar, RAM (per language)	150 KB (control of small navigation systems)	5 MB (complex dialogues in high-end infotainment systems)
Recognition with database of 70,000 city names, RAM	10 MB	
Supported APIs	C/C++ SVOX API, MS SAPI v5.0 (Win32 and WinCE)*	
Chipsets supported	X86, SH4, X-Scale, Strong ARM, ARM7–9–11, OMAP, TI Jacinto, MIPS*	
OS supported	VxWorks, MS Auto, MS WinCE, MS Windows, Linux, QNX*	
Languages	Canadian French, Czech, Danish, Dutch, Finnish, French, German, Greek, Italian, Japanese, Korean (2010), Mandarin Chinese, North American Spanish, Portuguese, Russian (2010), Spanish, Swedish (2010), UK English, US English	

\* Others available on request

## SPEECH OUTPUT

### Polyglot, Natural

SVOX Automotive TTS solutions are tailored for noisy car environments and enjoy a reputation for industry-leading quality. They power many of the most advanced and successful in-dash infotainment systems in the market. SVOX TTS technology is characterized by natural and clear sound as well as unique polyglot capability – the same voice can speak multiple languages like a native speaker.

### Portable, Scalable

Automotive customers use SVOX embedded TTS to enable speech output in a variety of in-car devices. Excellent portability and scalability are ensured thanks to a special design that takes into account specific requirements of embedded automotive environments.

### Technical specifications

All values in the table are approximate, exact values differ depending on the platform.

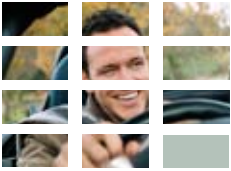
	SVOX Automotive TTS Standard	SVOX Automotive TTS Pro	SVOX Automotive TTS Plus
Memory requirements, ROM (per language)	5 MB	14 MB	100 MB
Memory requirements, RAM (TTS engine)	5 MB or less		
CPU requirements	50–80 MIPS (very scalable)		
Simultaneous channels	Virtually unlimited (limited only by hardware)		
Supported APIs	C/C++ SVOX API, MS SAPI v4.0 and v5.0 (Win32 and WinCE), Microsoft .net*		
Sampling rates	PCM (linear) mono PCM mono/stereo; any sample rate up to 44 KHz		
OS supported	VxWorks, QNX, MS Auto, MS WinCE, MS Windows, Linux, REX OS, ThreadX*		
Chipsets supported	X86, SH4, SH3, X-Scale, Strong ARM, ARM7–9–11, OMAP, TI Jacinto, MIPS, Atlas, Jupiter*		
SDK features	SVOX TTS SDK includes API for backwards compatibility, viseme-API for talking faces, demo program, text preprocessing, lexicon management, documentation, etc.		
Languages	Arabic (Q409), Brazilian Portuguese, Canadian French, Cantonese Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Italian, Japanese, Korean, Mandarin Chinese, North American Spanish, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Turkish, UK English, US English		

\* Others available on request

## SVOX DIALOG

SVOX Speech Dialog solutions aim to take speech user interfaces to a new level. Open speech dialog overcomes inflexibilities inherent in some of

the current speech systems, making possible natural, truly interactive communication between humans and in-car devices.



# SVOX Automotive Speech Solutions

## DEDICATED TO CUSTOMER SUCCESS

### Experience with high-profile projects

SVOX Professional Services offer automotive customers undivided attention. The team has amassed unique experience and understanding of the industry needs by running numerous successful and “industry-first” projects for SVOX automotive customers.

### Complete, industrial-grade tool chain

A big part of SVOX success in the automotive market is based on the availability of a complete, industrial-grade tool chain that makes it possible to execute big and complex speech projects efficiently. Such tools as SpeechCreate allow customers to achieve the desired speech quality level while keeping costs down.

## ABOUT SVOX

### Profile

SVOX, a leading supplier of embedded speech solutions, has a reputation for quality and customer focus. SVOX drives adoption of speech user interfaces in automotive and mobile device industries. The company offers Speech Recognition (ASR), Speech Output (TTS) as well as complete Speech Dialog solutions.

### History

Founded in 2000 as a university spin-off, SVOX is a fast-growing privately held company headquartered in Switzerland and with offices in Ger-

many and the USA. As of middle 2009, SVOX had about 90 permanent employees and more than 100 language experts employed on a project basis.

### References

SVOX is proud to be a partner and supplier of leading companies including Android, Asahi Kasei, Audi, BMW, Continental, Elektrobit, Ferrari, Google, HarmanBecker, Hyundai, Mercedes-Benz, Nokia, Nissan, Peugeot, Porsche, Renault, Volkswagen and Xanavi.



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