



vicCONTROL industrial

Voice Control and Conversational Interface

vicCONTROL industrial enables local voice control and conversational interfaces on ARM- and x86-based platforms. It can be used directly on the device without an internet connection or on edge devices within the local network. All its runtime software components work offline, which makes it particularly suitable for applications that must function without Internet access or have special data protection requirements (privacy by design). vicCONTROL industrial is available in 30 languages and recognises natural speech, comparable to cloud-based speech recognisers such as Amazon's Alexa or Google's Speech-to-text services. Semantic understanding is achieved through the latest ML and AI technologies as well as high quality Text-to-Speech-Synthesis (TTS) for feedback or status announcements is also included. Easy integration into existing systems, applications or networks is possible through standardised protocols (MQTT, JSON, (S)RTP). The runtime components for the target platform can also be supplied as software libraries. Development kits are available and you get access to our easy-to-use web tool vicSDC, which allows you to create your personal speech dialogs.

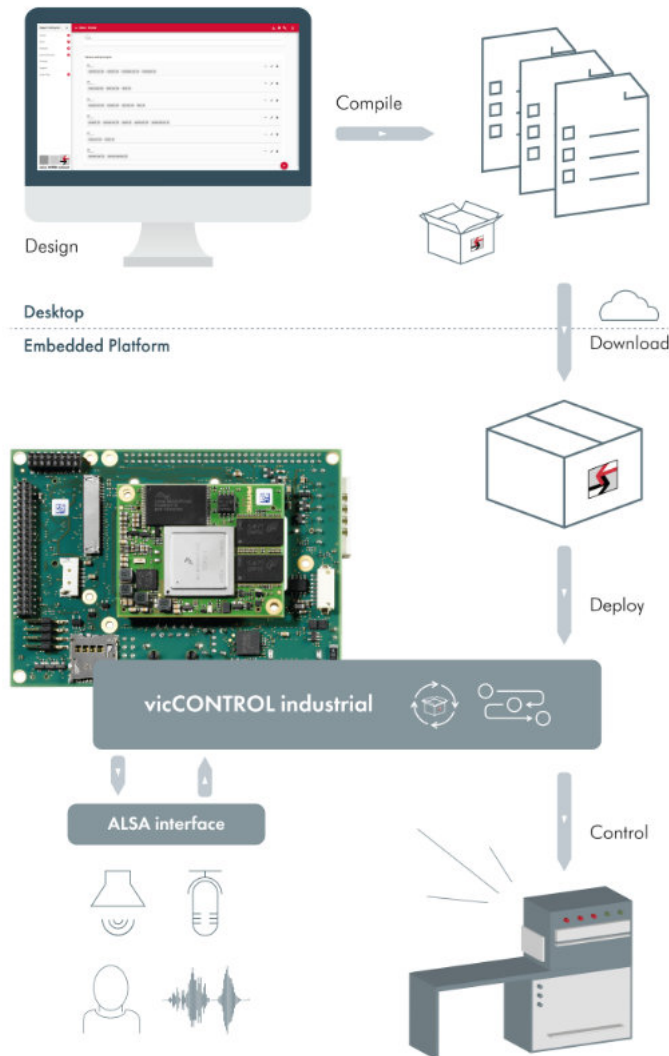
PRODUCT FEATURES

- Software for ARMv7 / x86 under Linux, Windows, Android, iOS to build local voice control or conversational interfaces
- Creation of statistical and semantic models for offline operation via state-of-the-art ML and AI technologies
- NLU-capable voice control
- High-quality Text-To-Speech Synthesis (TTS)
- Convenient integration with your business logic or applications using standardised protocols and APIs
- Semantically evaluated commands are passed on in a structured manner
- Freely selectable wake words without training
- Small memory and CPU footprint (no special AI hardware necessary)
- Development kits incl. access to web tool vicSDC for creation of speech dialogs

APPLICATIONS

- Extension of user interfaces with a voice control
- Control of machines and plants
- Operating and monitoring medical systems
- Status query and announcements
- Intuitive input in rehabilitation technology
- Natural collaboration with robots and AR applications
- Data acquisition and logging
- Touch-free for sterile interaction

WORKFLOW



1. Design your speech application
2. Deploy speech application at the embedded target platform
3. Connect speech application with your business logic

FURTHER FUNCTIONALITIES

- Industry-proven quality in 30 national languages
- All voice commands are available at the same time
- Extraction of multiple semantic parameters from a single command, regardless of their sequence
- Qualitative evaluation and prioritisation of recognition results
- Multiple activation modes by voice or external trigger
- Offers sophisticated dialog strategies, like slot filling, multi-turn and dynamic content

TECHNICAL DATA

The resource consumption basically depends on the target platform and the features that are used for a specific application.

Requirements for elementary command recognition in real time and simple feedback on top of the existing base system start at 400 MIPS and 16 MB of RAM.

Typical storage requirements:

- Base Runtime "Dialog manager": 10 MB
- Speech recognition, NLU and semantic models per language together: 10 MB
- Text to speech synthesis per language: 100 to 200 MB
- Alternatively: space for pre-recorded audio

The existing development kits can also be used for more complex fully dialog-enabled systems that can also perform other parallel tasks.

FIND OUT MORE

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