



Embedded Voice Control for ARM Platforms

The vicCONTROL industrial is a further development of the successful vicCONTROL voice control for ARMv7 compatible platforms. Due to the increased computing power of the ARM processors and their widespread use in devices and machine controls, vicCONTROL industrial can be used directly without additional hardware. Using our comfortable and web-based tool vicSDC for speech dialog creation, the development of a customer-specific voice control application is easier than ever. The IoT protocol MQTT is used for the communication between the voice control and the sequence control of the customer's application. vicCONTROL industrial requires no internet connection because it is implemented locally on the ARM processor. The voice control is therefore particularly suitable for applications that do not have internet access or have special data protection requirements. In terms of performance, vicCONTROL industrial is in no way inferior to cloud-based speech recognizers such as Amazon's Alexa or Google Home and also available in 30 national languages.

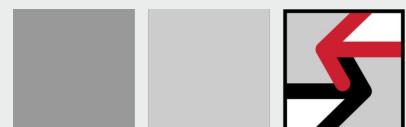
Product Features

- SDK for embedded ARMv7 compatible platforms
- Convenient API for using voice input and output functions via MQTT
- Web tool vicSDC for comfortable, speech dialog creation
- Industry-proven quality in 30 languages
- Wake word function
- Semantic evaluation of the recognized voice commands

Application Areas

- Extension of GUIs with voice control
- Control of machines and appliances
- Operation and monitoring of medical systems
- Intuitive input in rehabilitation technology
- Natural collaboration with robots and in AR applications
- Self-explanatory user interfaces

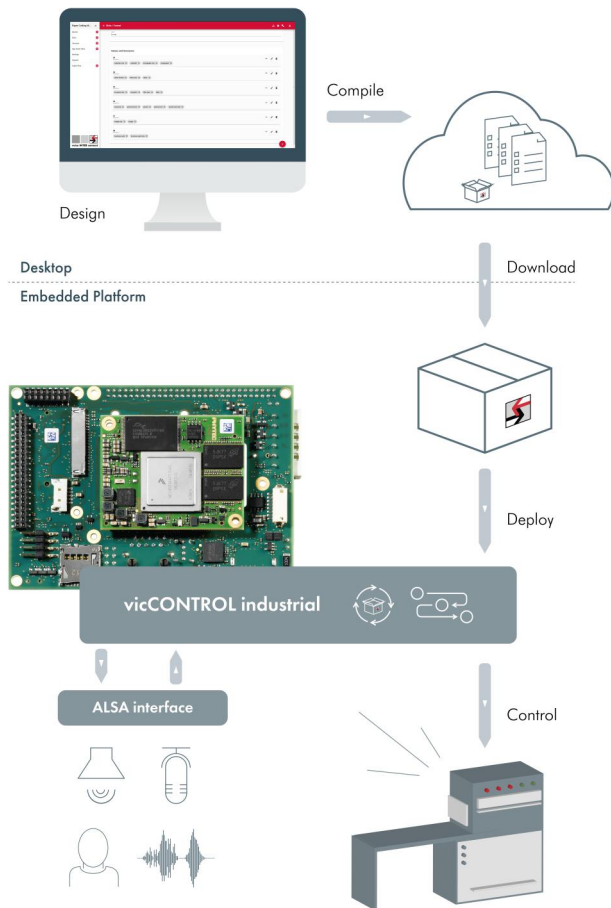
vicCONTROL industrial
Individual Voice Control for Your Devices.



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Technical Data

Steps to Integrated Voice Control



Design of a speech application with speech dialog creator vicSDC:

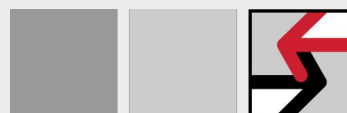
- Definition of voice commands (words and phrases)
- Assignment of commands to control functions (semantics) via intents and slots
- Definition and assignment of the acoustic feedback prompts
- Review and approval of the speech dialog
- Compiling of the speech applications resources directly from the web tool
- Download and deployment of a file archive to the target platform

Functions

- Flat recognition mode (all voice commands in one menu)
- NLU support (natural language processing)
- Wake Word functionality
- Recognition of intents and slots
- Qualitative evaluation and weighting of the recognition results
- Semantic post-processing and evaluation of the user's statements
- Acoustic feedback in terms of freely definable audio prompts
- Web-based speech dialog creator vicSDC for voice control application development

Technical Data

- Runtime: approx. 6 MByte
- Speech model: max. 6 MByte per language
- Application-specific language resources:
 - approx. 10 kByte simple command control with 10 words
 - approx. 500 kByte extensive control with 1000 words
- RAM: approx. 10 MByte (depending on application)
- Computing requirements: approx. 400 MIPS for real-time processing



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