

Bringing humans closer
to technology
with the power of voice

Press Kit - October 2022

VIVOKA

YOUR VOICE HAS NO LIMIT



| The company

Vivoka is a global leader in voice AI technologies founded in 2015. Thanks to its VDK (Voice Development Kit), Vivoka offers an all-in-one solution that enables any company to create its own high-performance, secure embedded/offline voice assistant in record time. Vivoka has won several innovation awards and has established leading partnerships with major players in the voice market. Vivoka has a portfolio of more than 100 customers from all major industries and is pursuing its goal of bringing people closer to technology through voice.



140

Clients, in different in more 10 sectors of activity, 15 country and more 60 use-cases



35 people

Teammates, including researchers and technical team (for 2/3 of company)



6 partnerships

Partners in voice industry, laboratory and technical industry, just to be at the stake of the art.



7 years

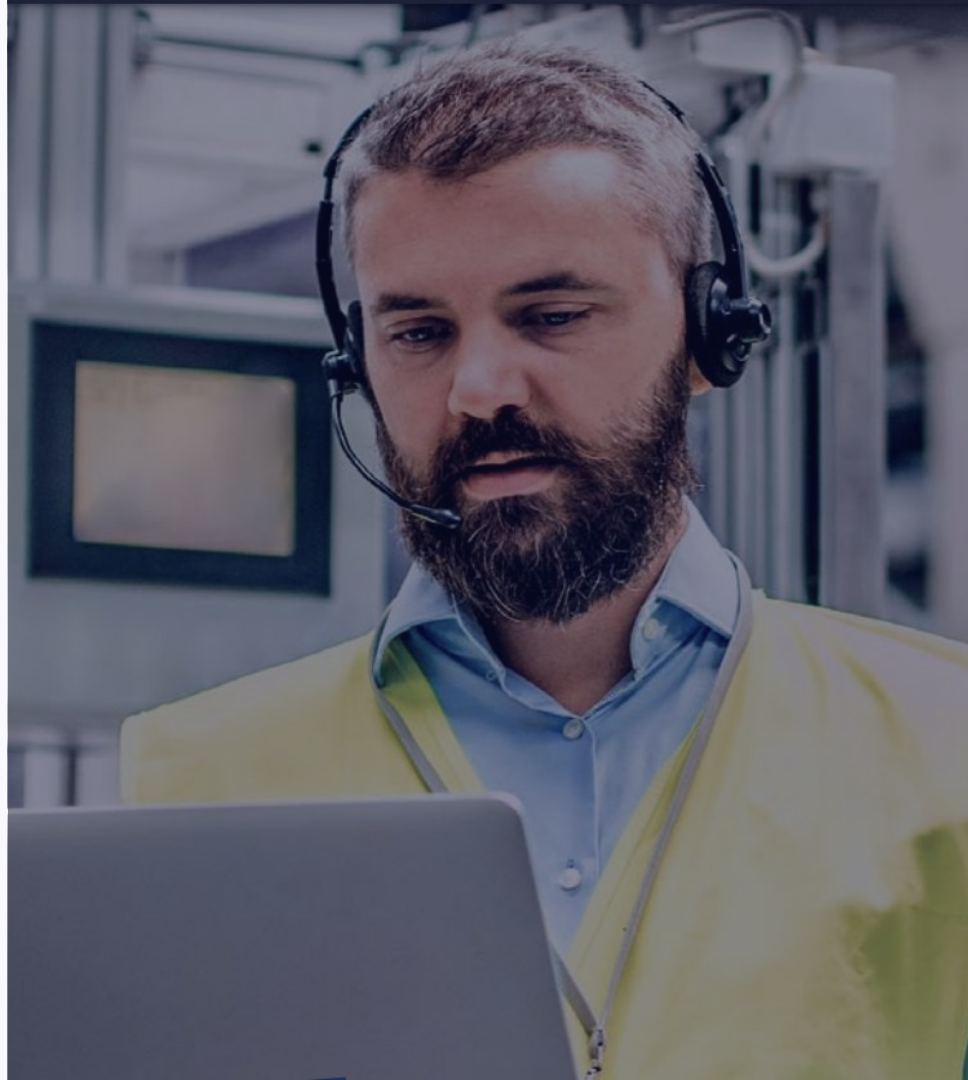
Years of experience, only in voice recognition, Vivoka is a pure player since 2015.



| The founders

| Our mission

Offering humans the
easiest way to
interact naturally with
technology



The Voice Market today

Current situation and challenges

| The voice market is expanding rapidly

Increased use of voice biometrics

Integration of voice-activated in-vehicle infotainment systems

Technological advances and growing acceptance of connected devices

Proliferation of voice-activated devices

Increasing use of connected devices in automotive and home automation

Strong growth potential for AI-enabled voice assistants in the healthcare industry

27Md\$

*Speech and Voice Recognition
Market
2025 - monde*

20%

*Average annual market growth
2018-2026*

Problems encountered by companies

01

Complexity

Voice solutions are based on the latest technologies available on the market. These technologies can be extremely complex to use, which, in most cases, increases the time required to complete voice projects.

02

Compatibility

The Voice Development Kit is the first solution that integrates all the tools and technologies needed to design a voice assistant through its draft to its deployment.

03

Experience

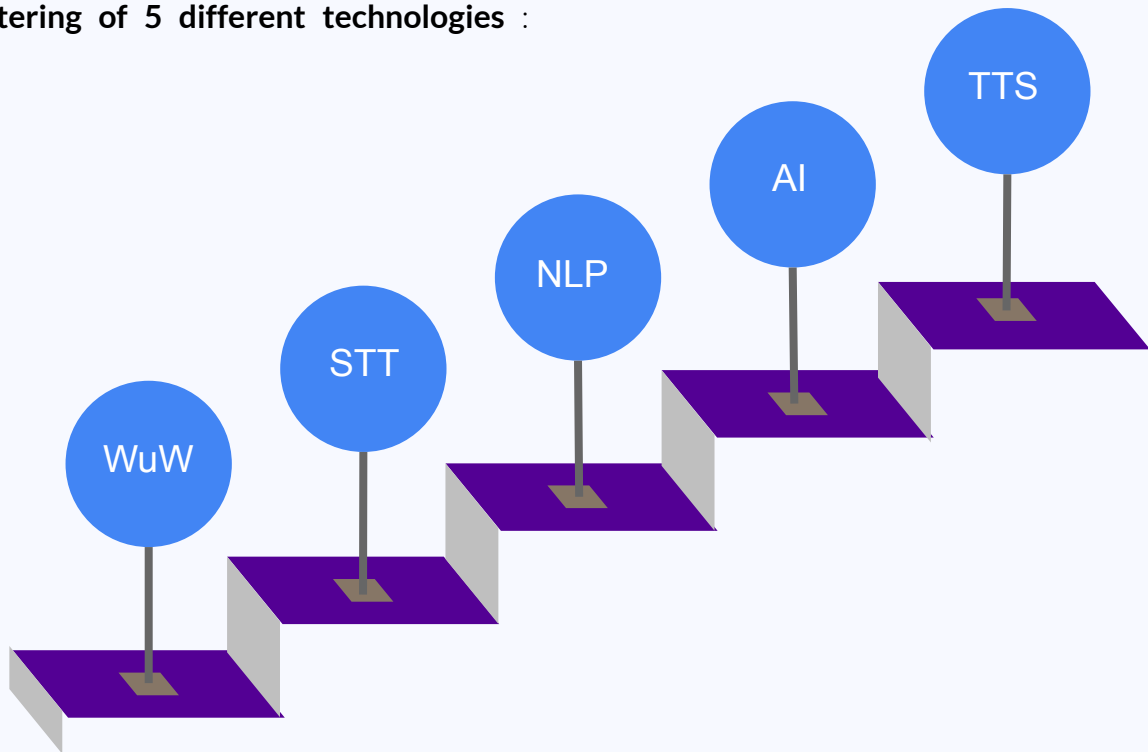
The voice technology ecosystem is a relatively new field in the world of innovation. It is often a challenge for companies that have little or no experience or know-how in this area.

| The challenge

Designing a voice interface requires **the mastering of 5 different technologies** :

- ***Wake Up Word (WuW)***
- ***Speech to Text (STT)***
- ***Natural Language Processing (NLP)***
- ***Artificial Intelligence (AI)***
- ***Text to Speech (TTS)***

Each technology can be deployed in embedded, on premise or cloud versions.



What is the VDK ?

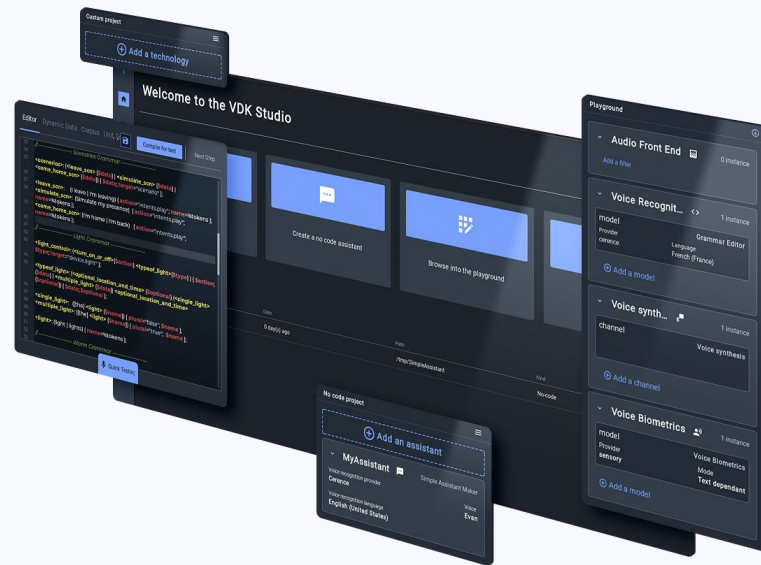
Origin, context of creation and promise.

The Origin

With more than 7 years of experience in the field of voice, our observation is simple: voice technologies are currently a challenger for companies.

Despite technological advances, it is very complicated to take full advantage of this new method interaction.

The number of different technologies required, their non-adaptability and lack of understanding are many reasons that motivated the creation of the Voice Development Kit.



VDK Silbo

Vivoka pays tribute to the oldest and simplest language in the world. It is the SILBO language.

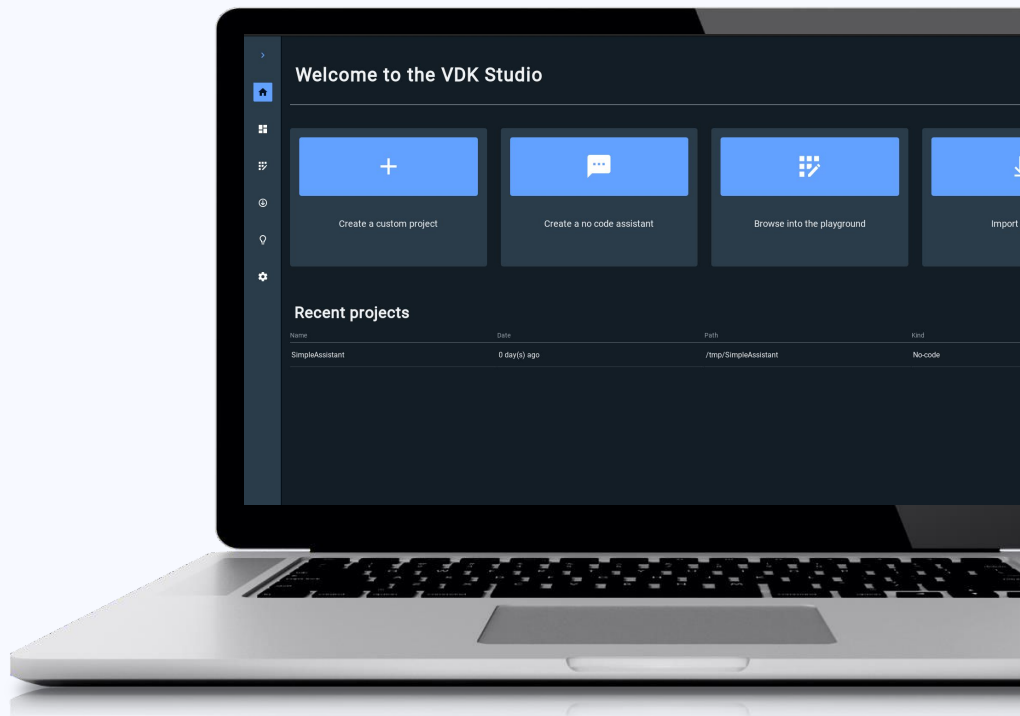
This language, originating from the island of La Gomera, is the only one in the world entirely composed of whistles. It is composed of 4 consonants and 4 vowels and is capable of producing more than 4000 words.

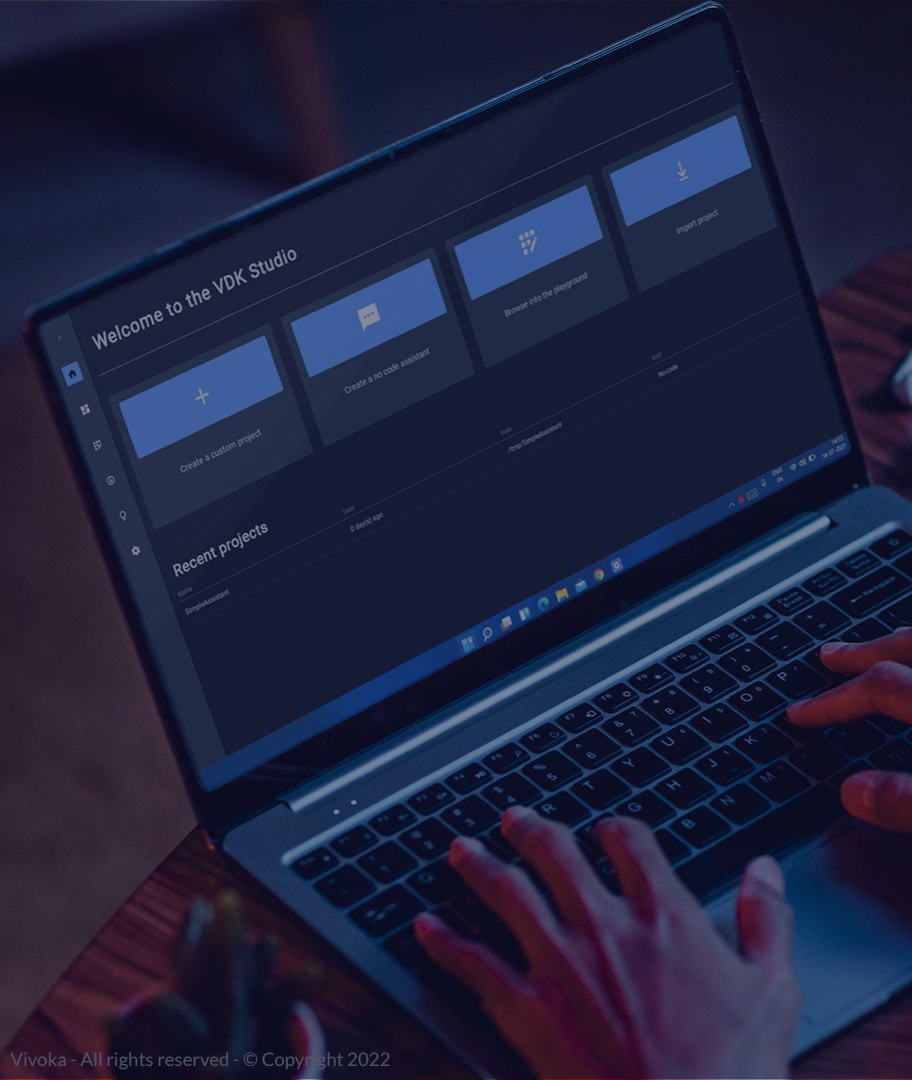
Like the Silbo language, the new VDK (Voice Development Kit) is the simplest software in the world to create a private data voice assistant with an even simpler interface.

Create your own Voice interface

VDK Silbo is a software development kit with a user-friendly graphical interface. Its purpose is to **bring together all the voice technologies within a single tool** that is both simple and versatile.

Evolving standard interfaces towards voice interfaces is very complex today. Having a powerful solution, adapted to the need, easy to use and to integrate is rare. If several technologies complement each other (which is often the case), the task becomes even more complicated.



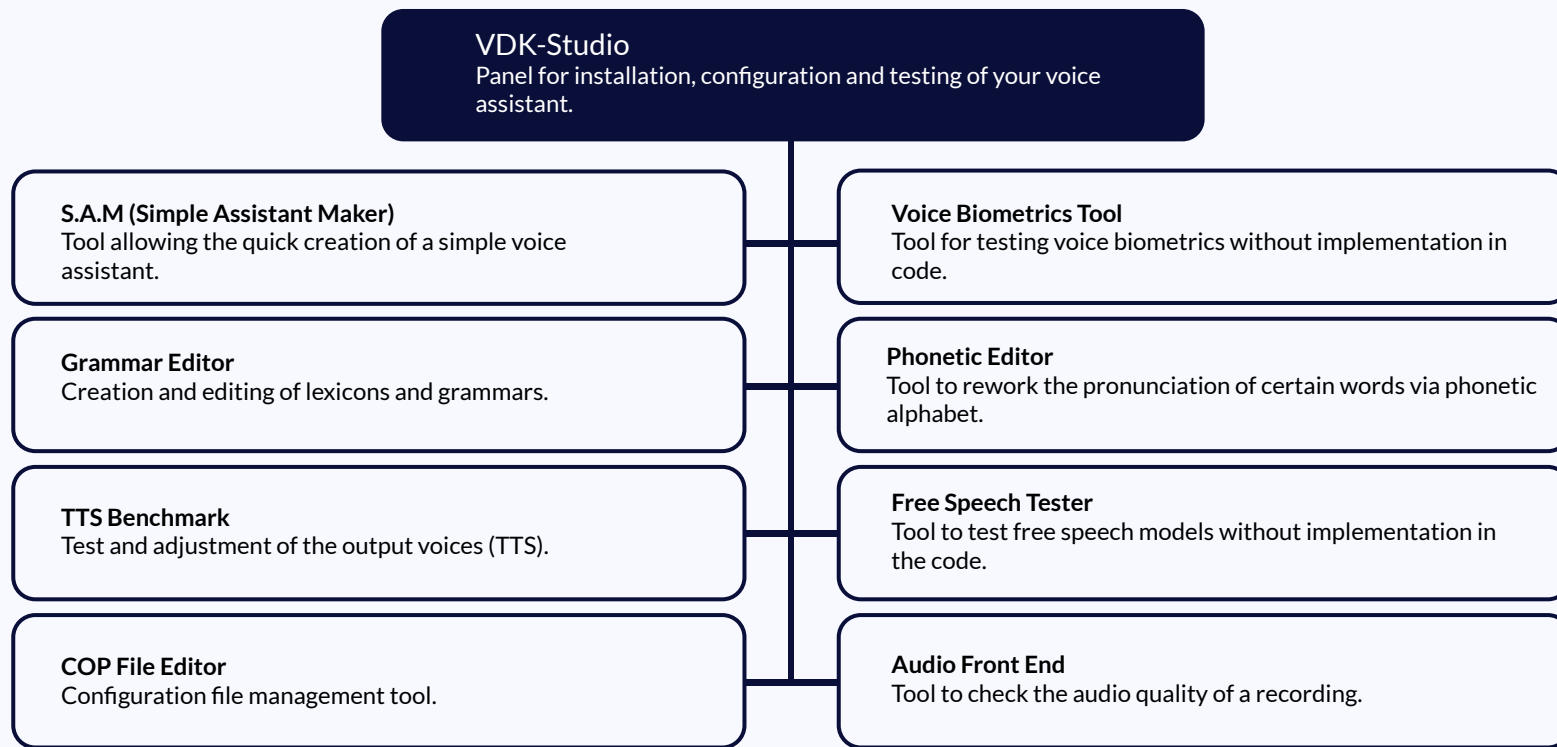


| ...within 60 minutes.

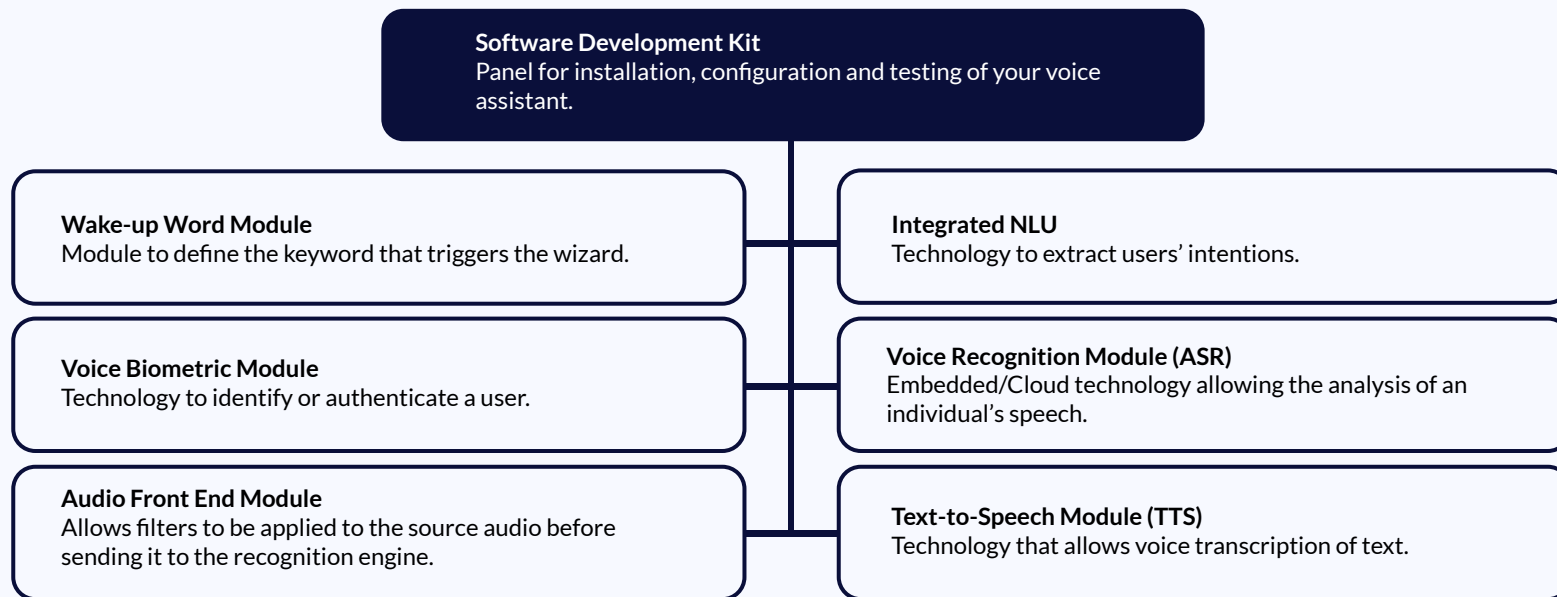
The VDK Silbo allows any developer to create and configure an embedded voice assistant (transcription and speech synthesis) in record time. The inherent complexity of the associated technologies and plugins has been abstracted and optimized thanks to our know-how.

The modules accessible through the VDK Silbo 4.0 have been designed to develop the most powerful technologies of the embedded market. They are harmonized in terms of interface, use and documentation, in order to guarantee their integration.

What does VDK-Studio include?



What does VDK include?



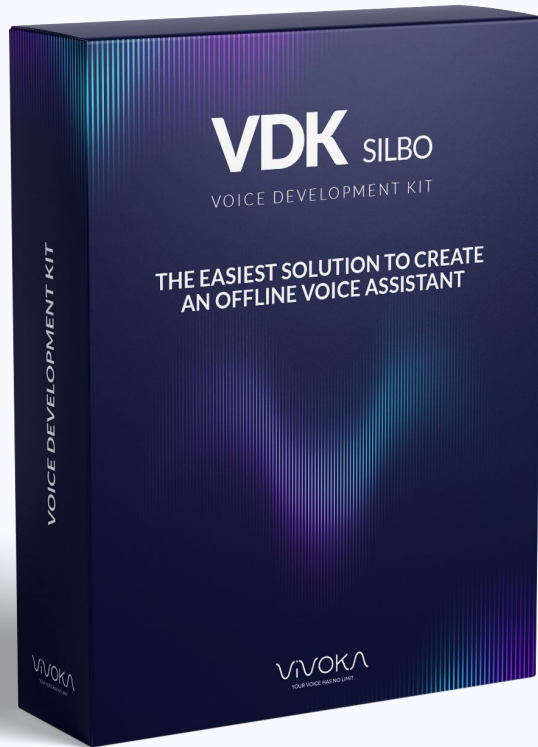
Why use the VDK Silbo?

The benefits brought by the tool and its functionalities.

The fundamentals

The Voice Development Kit is designed to:

- Bring together different voice solutions in a single kit.
- Standardize development procedures.
- Provide tools to accelerate technology production.
- Eliminate many of the cumbersome development procedures.



All technologies accessible
through a single software



Graphical interface available
for simplified development



Specialized artificial intelligences
for certain fields



Off-line technologies and
working in 41 languages



Universal compatibility:
Linux, Windows, Mac



Development assistance plugins
(simulator, configurator...)

Benefits

Offline reliability

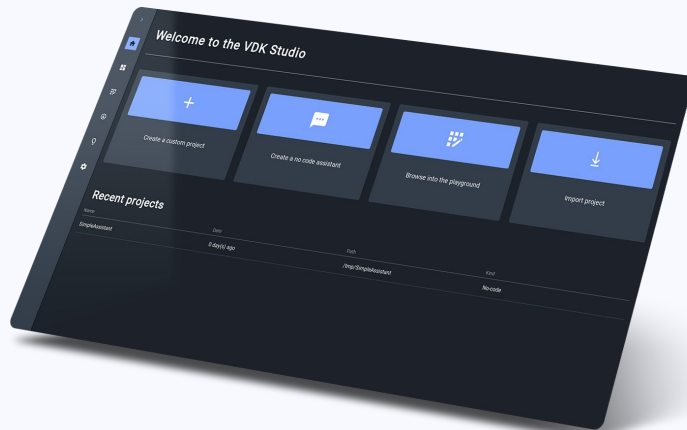
No Internet connection, no problem. VDK's technologies are robust enough to work in environments with poor connectivity.

Autonomous

The VDK is the first embedded voice interface that adapts to your exact use cases with a perfect polyvalence.

Privacy by Design

VDK's technologies run locally and on-device, with no end-user voice data transferred or analyzed in the cloud.



Multilingual conversations

Technologies inside the VDK understand and respond to you naturally in multiple languages.

Upfront pricing

Don't get lost in cost per request, master your budget with a one-time, per device license fee that keeps your costs predictable.

Cloud-level performance

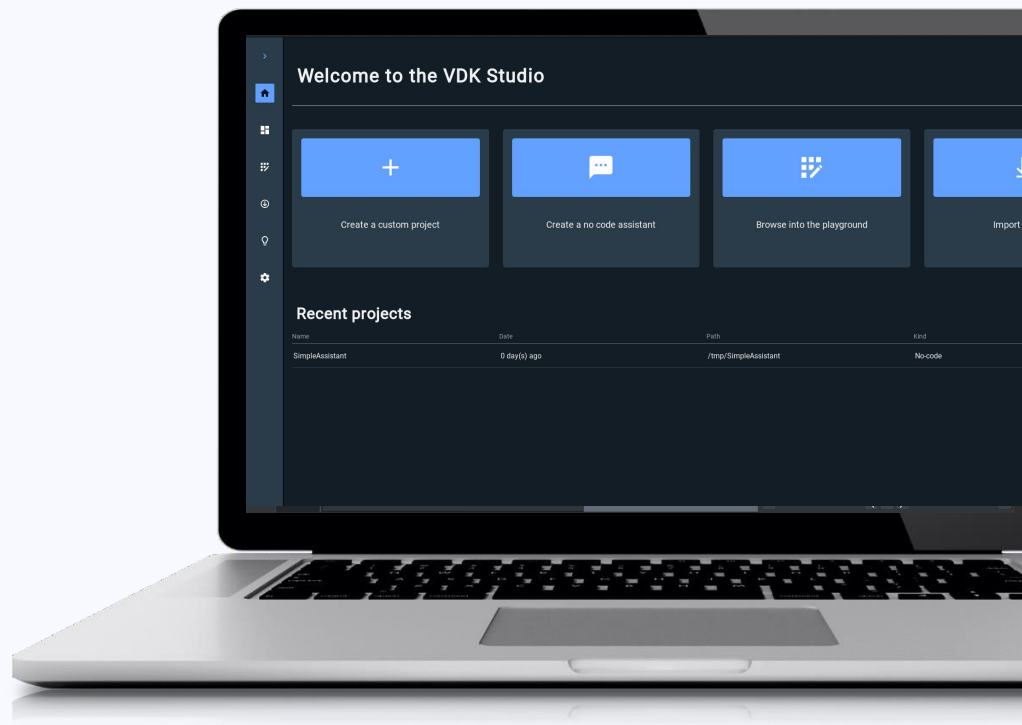
Our low-latency voice interface performs dramatically better than cloud solutions, while running in real-time on a more efficient power footprint.

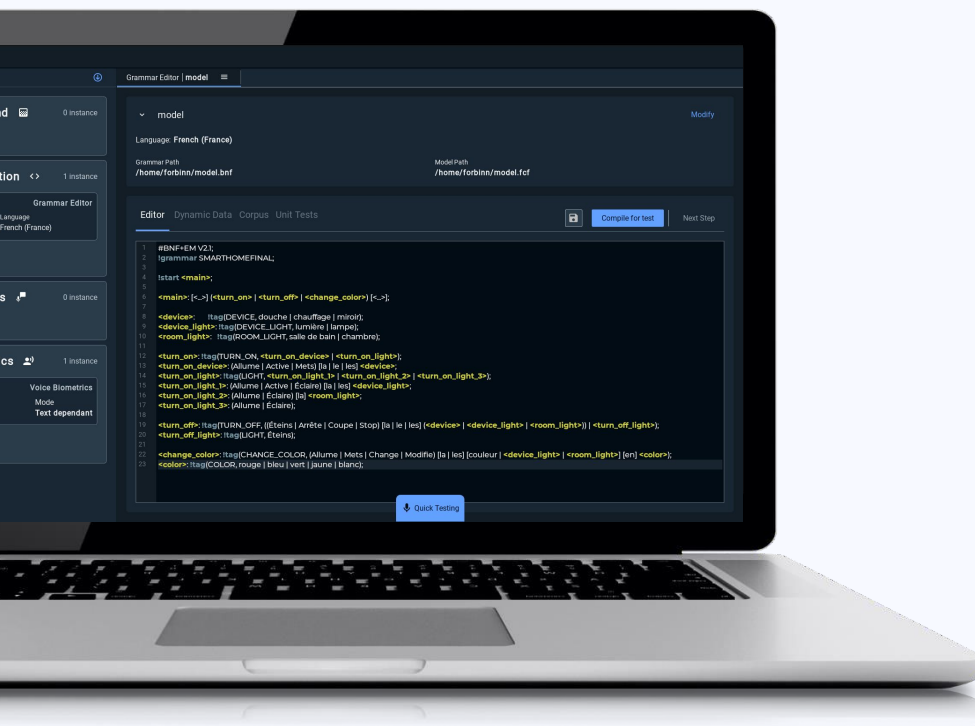
How to develop with the VDK Silbo?

Architecture and operating principles.

An intuitive graphical User interface

Numerous plugins are to be used in parallel to carry out the creation of voice functionalities. With the VDK, everything is on the same software and the same interface in one view. Access every offline voice solution and powerful tools very simply.





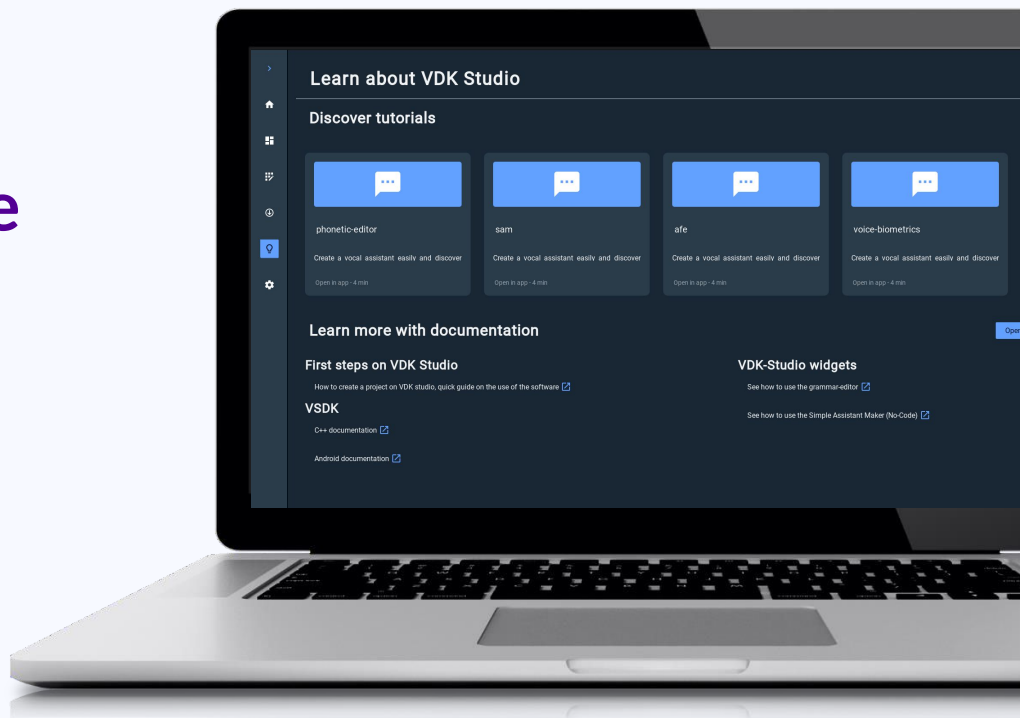
A complete range Of widgets

Grammar Editor, COPFile Editor, Voice Studio... All these tools are at your disposal for the different stages of creating offline voice features: creating recognized vocabularies, customizing synthetic voices, managing dynamic files...

In order to quickly test and benchmark solutions, SAM is a tool imagined and developed to create any functional offline voice commands in a minimum amount of time.

Tutorials and clear Documentation to guide You

It is often complicated to find your way around in the early stages of creating a voice interface. To reduce this complexity, tutorials (creation of an ASR, a TTS...) are available to accompany you step by step in the development of your offline voice solution.



Languages in Voice Recognition (ASR)

- | | |
|----------------------|------------------------|
| - German | - Indonesian |
| - American English | - Italian |
| - Australian English | - Japanese |
| - British English | - Chinese Mandarin |
| - Indian English | - Szechuan Mandarin |
| - Arabic | - Taiwanese Mandarin |
| - French Canadian | - Dutch |
| - Cantonese | - Norwegian |
| - Korean | - Polish |
| - Danish | - Portuguese |
| - Spanish | - Brazilian Portuguese |
| - Mexican Spanish | - Russian |
| - Farsi | - Slovak |
| - Finnish | - Swedish |
| - Flemish | - Czech |
| - French | - Thai |
| - Greek | - Turkish |
| - Hebrews | - Valencian |
| - Hungarian | |

Languages in Speech Synthesis(Text-To-Speech)

- | | | |
|-------------------------|-----------------------|------------------------|
| - German | - Kannada | - Marathi |
| - American English | - Danish | - Dutch |
| - Australian English | - Dongbei | - Norwegian |
| - British English | - Spanish | - Polish |
| - Scottish English | - Argentinian Spanish | - Portuguese |
| - Indian English | - Colombian Spanish | - Brazilian Portuguese |
| - Irish English | - Chilean Spanish | - Romanian |
| - South African English | - Mexican Spanish | - Russian |
| - Arabic of the Gulf | - Farsi | - Shaanxi |
| and the Levant | - Finnish | - Shanghainese |
| - Basque | - French | - Slovak |
| - Belgian German | - Gaelic | - Slovenian |
| - Bengali | - Greek | - Swedish |
| - Bhojpuri | - Hebrews | - Tamil |
| - Bulgarian | - Hindu | - Czech |
| - French Canadian | - Hungarian | - Telugu |
| - Cantonese | - Indonesian | - Thai |
| - Korean | - Malay | - Turkish |
| - Croatian | - Chinese Mandarin | - Ukrainian |
| - Italian | - Mandarin Sichuan | - Valencian |
| - Japanese | - Taiwanese Mandarin | - Vietnamese |

How does the VDK voice AI works ?

It is composed of 5 blocks

01. Allows to "wake up" and trigger the robot, it is a button, or a request, like "ok google"
02. Transcribes the order into key words
03. Allows the understanding to act - it's called NLU (Natural Language Understanding)
04. Mixes intentions (example: "turn on the light"), once the order is understood, the user's intention is translated into a command that can be assimilated by the artificial intelligence that constitutes the voice assistant
05. Executes the requested action, either by answering the question or by carrying out the request

Which technologies are available in
the VDK ?

Wake up Word



Waking up the voice assistant

The trigger word is used to "wake up" the assistant with a single word or phrase.



Privacy

Perfectly meets the companies' requirements for accuracy and confidentiality.



Extreme Accuracy

Works in any environment or with any complexity of Wake Word.

| Embedded Speech-to-Text (STT)



Speech Transcription

Automatic voice transcription of discussions and meetings to be treated as voice dictation with specific speech recognition templates.



Voice commands

Transformation of voice into text to be interpreted by NLP/NLU engines to identify user intent for voice commands.



Voice messaging system

Fast and automatic voice transcription used for messaging applications on devices.

Embedded speech synthesis (Text-To-Speech)



Voice User Experience

Create human interaction with voice assistants by giving them a natural voice to respond and interact with users.



Voice Information System

Use text-to-speech to generate custom voices to provide customers or users with voice information in addition to traditional displays.



Speech Accessibility

Make your products and services accessible to everyone, including the visually impaired, with natural speech synthesis.

| Embedded voice biometrics



Speaker identification

Create meeting reports with automatic voice transcription with speaker identification.



User authentication

Give your users reliable, frictionless authentication for physical or digital access.



Personalized user experience

Personalize your user experience with automatic user identification using voice biometrics.

Customers & industries

We cover various industries and applications



Aeronautic, Space et defense

Voice-activated
flight simulator
control



THALES



energie atomique • energies alternatives



Supply Chain/ Logistics

Voice Picking,
making
inventories



Transports

Announcement
system of the
stops, of the
terminus



Robotics

Voice control of
robot or humanoid
robotics



Industry 4.0

Maintenance
and quality
control by voice



We cover various industries and applications



Smart Glasses

Smart Glasses
controlled by
voice

VUZIX

Rokid



AUGMENTALIS
INTELLIGENT DEVICES



Healthcare

Medical
equipment
controlled by
voice



eurofins



Internet of Things

Voice control of
everyday
objects



scanningpens

IrisEnergy



Smart building

Voice command of
home automation
(elevator, meeting
rooms) and voice
biometry

videlio



EIFFAGE

JCDecaux



Appliances

Voice control on
kitchen robots,
ovens, coffee
machines, connected
mirrors...

careOS

INFINITEPLAY

Use Cases

Business to Business

Technologies : ASR & TTS

Pick-by-Voice to improve productivity and security

Vocalize a maximum of tasks with the centralized system. With a headset and a mobile device, give instructions and follow your operator's execution on site.

With their hands and vision free, operators can perform operations faster and more efficiently while increasing safety.

Some commands you might say:

- "Counting" - Choose 3"
- "Next item"
- "The item is broken."

01. Increase your employee's comfort and productivity

02. Enable worker to perform certain tasks more accurately with less errors.

03. Improve worker's security

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Technologies : ASR & STT



On-site intervention report filled with speech recognition

Dictate information while maintaining confidentiality.
Collecting data by technicians.
Fill in digital TRDs in the nuclear industry

Some commands you might say:

- "I just renewed the meter, the index dropped is 7899 M3, I installed a check valve."
- "The part to be repaired is XXXX."
- "The customer has water, I put the connection back on the BAC."

01. Productivity : save several minutes per day

02. Work anywhere, no need for internet connection

03. Secured: Protect your business from cyber attacks



Technologies : ASR & TTS

Voice-enabled smart glasses

Smart glasses are intended for industries, supply chains or healthcare professionals for example.

With voice-controlled AR glasses, improve employees' work condition, lower risk of errors, foster productivity by boosting workers' performance. voice interactions are natural when used with head-worn technologies to keep hands free.

Some commands you might say:

- "Display the remote instructions."
- "Monitor vital signs."
- "Open the quality form."
- "Validate operation X345-43."

01. Improve workers safety and comfort

02. Éliminate manual processes and enable hands-free

03. Perform certain tasks more accurately and with fewer errors.



Technologies : TTS



Speech synthesis solutions in Transport

Improve customers' comfort with Text-to-speech solutions in trains, buses or subways.

Guarantee reliable, fast information, and all with a pleasant voice, which allows the passenger to be informed in the best way.

Some commands you might say:

- "The final destination is "Paris-Bastille"."
- "Next stop, Nations, please mind the gap between the train and the platform."
- "You arrive at the terminal at 19:58."

01. Reinforce user's comfort

**02. Enhanced service accessibility
for visually impaired**

**03. Give the desired tone of voice to
the assistant**

Technologies : ASR & TTS

Voice assistant in robotics

Enhance man-machine interaction with a complete range of voice technologies. Robots can understand and speak back to the user to create a human-like relationship.

Increase robots management with customizable voice commands and tts capabilities.

Some commands you might say:

- "Grab this part."
- "Lift this package."
- "Bring me this parcel."

01. Increase productivity with easy control of your robot by voice.

02. Increase security by controlling the robot by voice.

Technologies : ASR & TTS

Voice-controlled medical equipment

With the pandemic, TouchLess is increasing and for hygienic reasons, voice command is requested by dentists to control their patient dental chair and other medical equipment.

Surgeons and medical staff need to have their hands fully available to work and the most swift method to interact with their surrounding equipments and monitors.

Some commands you might say:

- "Lower the chair."
- "Turn on the lamp."
- "Fill the glass with water."

01. No need to handle. Reduces the risk of contamination.

02. Hands-free, no time is lost during the intervention.

03. Gain in productivity.

Technologies : ASR & TTS

Kiosks commanded by voice to simplify customers' requests

In smart cities, shopping center, reception of establishments or in stores, voice-controlled kiosk will foster your customers' experience.

Enable voice solutions to guide the user in a fast and efficient way.,

In a post-pandemic world, touchless is increasing and for hygiene reasons, voice is more and more requested.

Some commands you might say:

- "Where is the "Bestdesign" store? (at the reception of a shopping center)"
- "I want to order two Big Macs and a coke."
- "I want to check in."

01. More hygienic. Allow touchless interactions in public places.

02. Fast and adapted to visually impaired.

03. Reinvent the way to interact with machine.



Technologies : ASR & TTS

Speech Recognition for terrestrial, naval or aerial equipment

Protected buildings access control via voice biometry.

Identify and give access to your employees by recognizing their specific voiceprint thanks to Biometric Identification technology.

01. Easy and accurate control of your machinery.

02. Secured access to your building.

03. Improve learning method.

Use Cases

Business to Customers

Technologies : ASR - TTS - Voice biometrics

Voice control and biometric recognition for Buildings

Identify and/or authenticate a visitor or employee by analyzing speech, or speaker verification.

Provide security for admission into an important or secured place.

The post-pandemic period is pushing the world to also foster interactions with all types of objects in touchless mode.

Some commands you might say:

- "I am looking for the floor of the company BestMode."
- "The voice assistant: "you have arrived at the "BestMode floor""
- "Bring me to the 3rd floor"

01. Provide a secured access to your building.

02. Faster access that improve employee's comfort.

03. Avoid touching the floor buttons.

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Technologies : ASR - TTS

Smart Home Voice Assistant

Control all kind of connected objects with voice. From TV to temperature and light management to scenario creation, a multitude of features can be discovered.

Create a conversational link between the home and the occupant through voice features. Make your Smart Home solution a reference on the market with a fast and comfortable user experience.

Some commands you might say:

- "Turn on the light and open the shutters."
- "Turn off everything and set the alarm."
- "Turn on the overhead projector and dim the lights."

01. User experience and technology adoption is greatly improved by the interactivity offered by voice.

02. Preserve occupant confidentiality through GDPR compliant processes.

Technologies : ASR - TTS

Voice Assistant for household appliances

Control a washing machine, a coffee maker, a food processor through voice recognition. Get a lightweight, multilingual voice assistant that suits various commands

Reliable embedded system, quick set up and easy update for all types of product releases.

Some commands you might say:

- "Turn on the oven."
- "Starts the robot."
- "Make an espresso."
- "What is the weather like today?"

01. Improve your customers' comfort and experience.

02. Avoid risk of errors or accident, thanks to an hands-free solution.



Technologies : ASR - TTS

Speech recognition for humanoid robots

For education, healthcare, hospitality, retail.

Get a powerful assistant equipped with a reliable voice recognition solution. A voice-activated humanoid robot can understand and transcribe all the instructions dictated to it.

Some commands you might say:

- "Where is the reception?"
- "Sing with me."
- "Give me the recipe for the cake."

01. Better interaction with customers

02. Entertain patient

03. Welcome and guide customers in hotel or shops

Technologies : ASR & TTS

Smart voice-controlled headset

Nowadays, the headphones we use have multiple functionalities, and not only to listen to music, but also to get more and more comfort and innovation.

Voice-control the headphone's features to keep your hands free, enjoy a seamless user experience with the embedded voice assistant that takes care of everything.

Some commands you might say:

- "Put the Noise Cancellation Mode."
- "Play Michael Jackson - Billie Jeans."
- "Stop Music."

01. To get a better ergonomics in the use of the helmet.

02. More secured thanks to hands-free: avoid using your hands to press buttons or look for the right music or information.



Technologies : ASR & TTS

Home Care Voice Assistant

Foster the autonomy of elderly or disable with Voice assistants

Help them control the different devices at home

Give alerts to the competent institutions when a problem occurs.

Reduce risk of accidents

Some commands you might say:

- "Hey Assistant, turn on the light and open the shutters."
- "Voice assistant: everything okay? (after an inactivity) / If no answer : alert launch."
- "Hey Assistant, call my grand son."

01. Entertain the elderly.

02. Implement a reliable system in case of an alert & reduce social isolation.

03. Care for people & increase autonomy.

Contacts & information

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