

RT-Voice PRO

Hearing is understanding



Documentation

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<https://www.crosstales.com>

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Thank you for buying our asset "RT-Voice PRO"!

If you have any questions about this asset, send us an email at rtvoice@crosstales.com. Please don't forget to rate it or write a little review – it would be very much appreciated.

1. Overview

Did you ever want to make a game for people with **visual impairments** or **reading difficulties**? Or want your players to **not have to read too much**? Or would you listen to just the dialogues in your game **without consulting a voice-actor** in early stages of development? Then RT-Voice is your **time-saving** solution to do so!

RT-Voice uses TTS-voices already integrated in your system to pronounce any written text at runtime.

All of this happens without intermediate steps: the transformation effects **instantaneously** - and, if needed, **simultaneously**!

2. Features

2.1. Convert text to voice

- **Instant conversion** from text to speech - generated **during runtime!**
- **Side effect:** the continuous audio generation **saves a lot of memory!**
- **No need for voice actors** during the testing phase of your game!
- Filter voices by **name**, **culture** and/or **gender**
- **Several voices at once** are possible (e.g. for scenes in a public place, where many people are talking at the same time)
- **Fine tuning** for your voices with **speed**, **pitch** and **volume!**
- Support for [SSML](#) and [EmotionML](#)!
- **Current word**, **visemes** and **phomenes** on Windows and iOS - including **marker functions!**
- Generated audio **can be stored** in files reusable within Unity!
- **1-infinite synchronized speakers** for a single AudioSource!
- Simple **sequence** and **dialogue system**
- **No** performance drops!
- Components to speak UI-elements, like **Text** and **InputField**
- Enables access to more than **1'000 voices!**

2.2. Documentation & control

- **Test** voices within the editor!
- Powerful [API](#) for **maximum control!**
- Detailed **demo scenes!**
- Comprehensive [documentation](#) and **support!**
- Full **C# source code**

2.3. Compatibility

- Supports **all build platforms!**
- **Native providers** for **Windows**, **macOS**, **Android**, **iOS** and **XBox**
- Compatible with:
 - [AWS Polly](#)
 - [Azure \(Bing Speech\)](#)
 - [MaryTTS](#)
 - [eSpeak](#) and [eSpeak-NG](#)
 - [Klattersynth](#)
 - [WebGL Speech Synthesis](#)
 - [Google Cloud Speech](#)
- Works with **Windows**, **Mac** and **Linux editors!**
- Compatible with **Unity 2018.4 – 2021.1**
- Supports **AR** and **VR!**
- **C# delegates** and **Unity events!**
- Works with [Online Check](#)
- [PlayMaker](#) actions!

2.4. Integrations

- [Adventure Creator](#)
- [Amplitude](#)
- [Cinema Director](#)
- [Dialogue System for Unity](#)
- [Google Cloud Speech](#)
- [Klattersynth](#)
- [LipSync](#)
- [Localized Dialogs & Cutscenes \(LDC\)](#)
- [Naninovel](#)
- [NPC Chat](#)
- [Online Check](#)
- [PlayMaker](#)
- [Quest System Pro](#)
- [SALSA](#)
- [SLATE](#)
- [Volumetric Audio](#)
- [WebGL Speech Synthesis](#)

2.5. Platform-specific features and limitations

2.5.1. Overview

Provider	Offline	SSML	Audio files	Words
Windows	yes	yes	yes	yes
macOS	yes	no	yes	no
Android	yes	yes	yes	no
iOS	yes	no	no	yes
WSA (UWP) / XBox	yes	yes	yes	no
MaryTTS	no ¹	yes	yes	no
eSpeak	yes	yes	yes	no
AWS Polly	no	yes	yes	no
Klattersynth	yes	no	no	no
SAPI Unity	yes	yes	no	no
WebGL Speech Synthesis	no	no	no	no
Azure (Bing Speech)	no	yes	yes	no
Google Cloud Speech	no	yes	yes	no

2.5.2. Windows

- Native rate is internally limited to 20 logarithmic distributed steps
- .NET 4.0 or higher must be installed
- Minimum Windows version: 7
- Maximal number of characters per speech: 32'000 (>35min)

Important note: not all SAPI-voices support SSML! If you experience a wrong voice speaking your text, the selected voice is most likely not SSML-compatible. In this case, remove all SSML-tags from your text and let RTV speak again or you could enable *Auto Clear Tags* on the Speaker-component.

2.5.3. macOS

- Native pitch has no effect
- Native volume has no effect
- Minimum macOS version: 10.6
- Maximal number of characters per speech: 256'000 (>4h 45min)

¹ Standalone: MaryTTS could be bundled with the app installer and run locally

2.5.4. Android

- Only one native voice at the time (can be solved by generating audio)
- Volume has no effect for generated audio (can be adjusted via AudioSource)
- Minimum Android version: 4.0.3 (API 15) – SSML needs 6.0 (API 23) and higher
- Maximal number of characters per speech: 3'999 (>5min)

2.5.5. iOS

- Only one active native voice at the time
- Current word but no phonemes and visemes
- Minimum iOS-version: 9.0
- Maximal number of characters per speech: n/a

2.5.6. WSA (UWP) / Xbox

- No native audio (only generated audio files)
- Minimum SDK-version: 10.0
- Maximal number of characters per speech: 64'000 (>1h 15min)

2.5.7. MaryTTS

- Platforms: all
- Support for RAWMARYXML, SSML and EmotionML
- No native audio (only generated audio files)
- Minimum MaryTTS-version: 5.0
- Maximal number of characters per speech: depends on the server request size, but 8'000 (>10min) is realistic. Higher numbers can lead to timeouts.

2.5.8. eSpeak

- Platforms: Windows, macOS, Linux and Android
- Minimum eSpeak version: 1.4.0
- Maximal number of characters per speech: 32'000 (>30min)

Important note: eSpeak must be installed on the target machine; see chapter 7.

2.5.9. AWS Polly

- Platforms: all except WebGL
- No native audio (only generated audio files)
- Maximal number of characters per speech: depends on the maximal request size, but 16'000 (>20min) is realistic. Higher numbers can lead to timeouts.

2.5.10. Klattersynth

- Platforms: all
- Unity AssetStore: <https://assetstore.unity.com/packages/slug/95453>
- Maximal number of characters per speech: 2'150 (>3min)

2.5.11. SAPI Unity

- Platforms: Windows standalone (IL2CPP)
- Only one active native voice at the time
- Native rate is internally limited to 20 logarithmic distributed steps
- Maximal number of characters per speech: 256'000 (>4h 45min)

2.5.12. WebGL Speech Synthesis

- Platforms: WebGL and Standalone
- Unity AssetStore: <https://assetstore.unity.com/packages/slug/81861>
- Maximal number of characters per speech: 32'000 (>30min)

2.5.13. Azure (Bing Speech)

- Platforms: all except WebGL
- No native audio (only generated audio)
- Maximal number of characters per speech: depends on the maximal request size, but 16'000 (>20min) is realistic. Higher numbers can lead to timeouts.

2.5.14. Google Cloud Speech

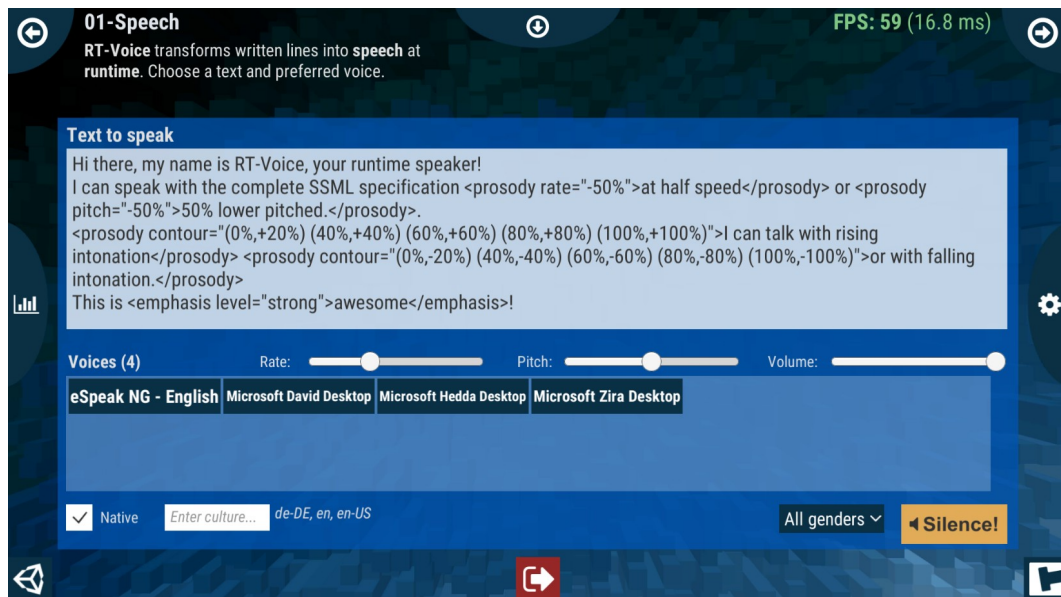
- Platforms: all
- Unity AssetStore: <https://assetstore.unity.com/packages/slug/115170>
- Maximal number of characters per speech: depends on the maximal request size, but 16'000 (>20min) is realistic. Higher numbers can lead to timeouts.

3. Demonstration

The asset comes with many demo scenes to show the main usage.

Please install "Assets/Plugins/crosstales/Common/UI.unitypackage" first and afterwards "Demos.unitypackage" to use the demo scenes!

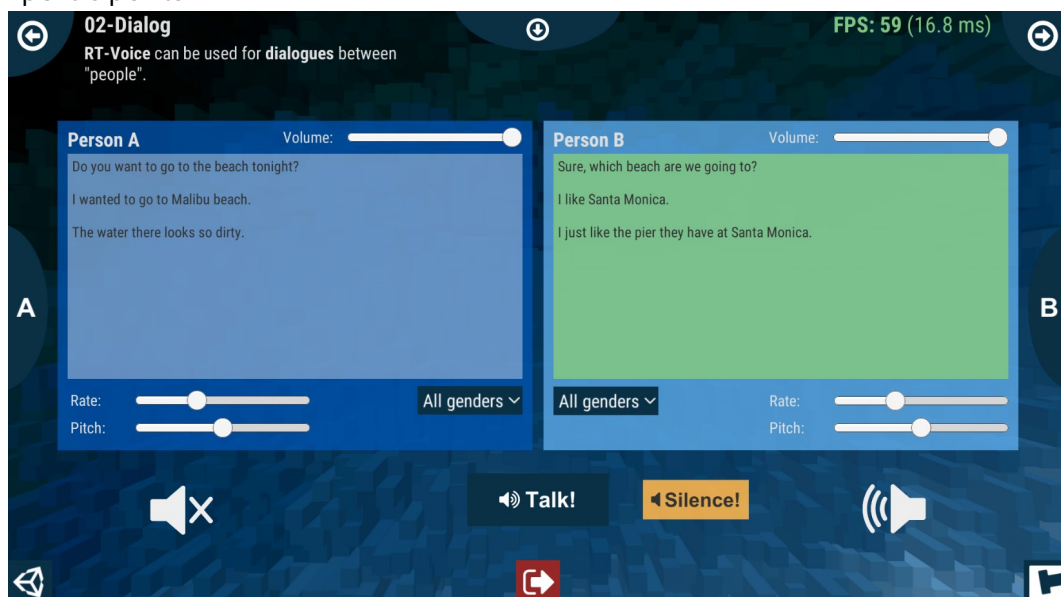
3.1. Speech



This demo scene shows how to transform written lines into speech. Choose the preferred voice.

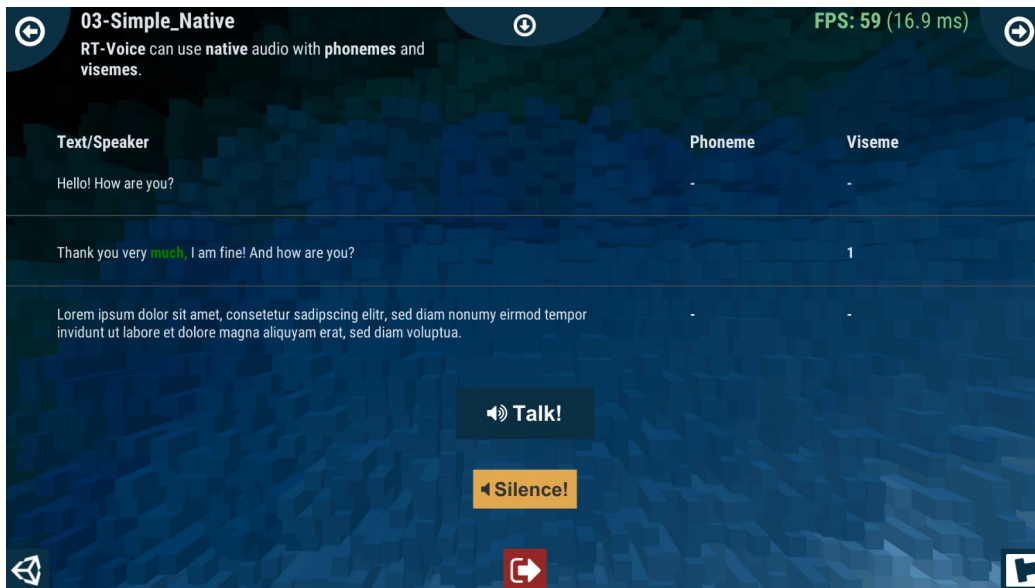
3.2. Dialog

In this demo scene acts out a dialogue between two "people". Choose a different voice for both participants.



3.3. SimpleNative

The "SimpleNative" scene shows the easiest way for native audio.



3.4. Simple

The "Simple" scene shows the easiest and recommended way for most purposes with generated audio.



3.5. 3DAudio

This scene demonstrates 3D positioned and looped audio.

Needs the [Unity Standard Assets](#)-package.

3.6. Loudspeakers

This scene demonstrates 3D positioned loudspeakers with only one audio origin (looped).

Needs the [Unity Standard Assets](#)-package.

3.7. SendMessage

This scene shows the usage of Unity's "SendMessage".

3.8. Sequencer

This scene shows the usage of our simple sequencer.

3.9. Exact and Exact_Native

These two scenes are showing how to build applications with exact timing between audio and animations (e.g. lip sync).

3.10. SpeechText

This scene shows how to speak or store generated audio (see the result inside the folder "_generatedAudio").

3.11. SpeechText

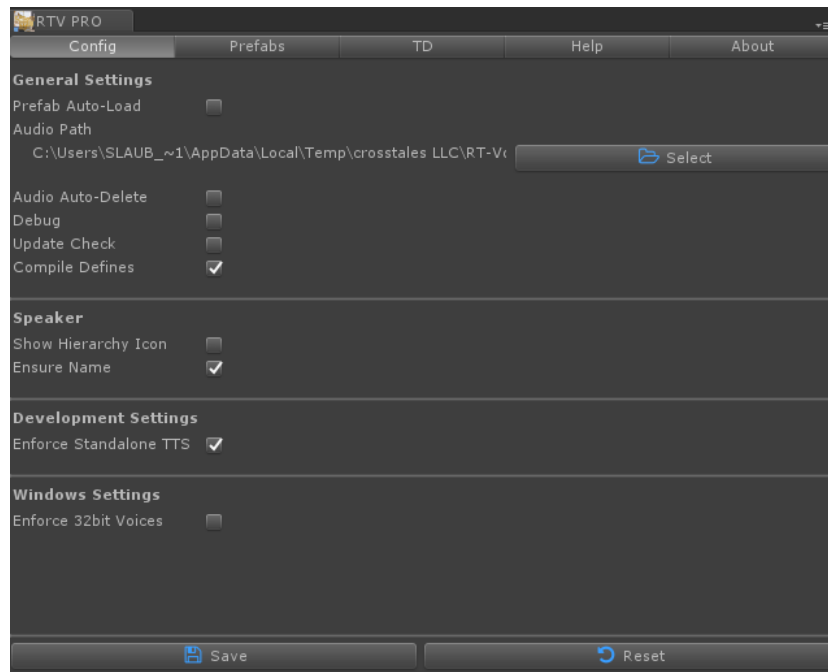
This scene shows how to speak text files with a voice (e.g. random dialogues of NPCs).

3.12. AudioFileGenerator

This scene shows how-to generate audio files from text files.

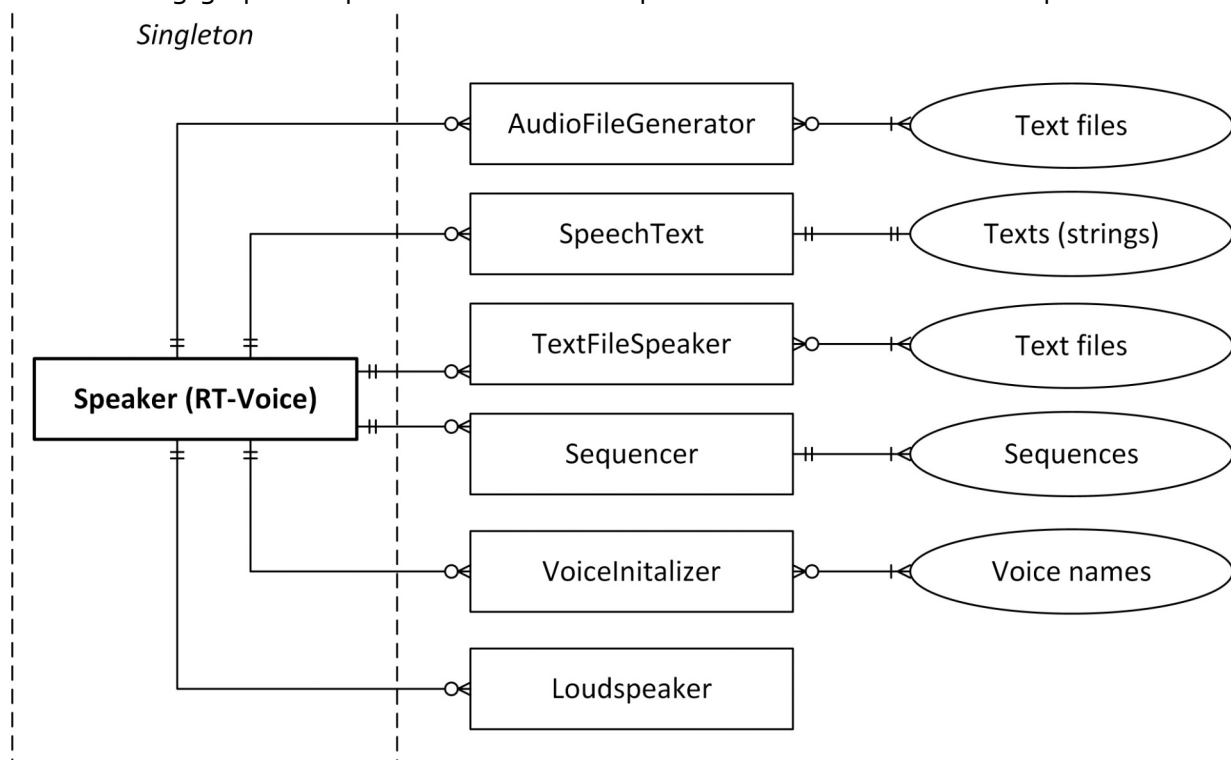
4. Setup

RT-Voice has global settings under "Edit\Preferences..." and under "Tools\RTVoice PRO\ Configuration...":



4.1. Schema

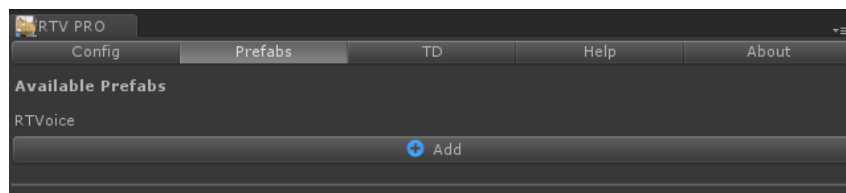
The following graphic explains the relationships between all relevant components:



4.2. Add RT-Voice

There are four ways to add RT-Voice to the project:

1. Add the prefab **RTVoice** from Assets/Plugins/crosstales/RTVoice/Resources/Prefabs to the scene
2. Or go to *Tools => RTVoice PRO => Prefabs => RTVoice*
3. Right-click in the *hierarchy-window => RTVoice PRO => RTVoice*
4. Add it from the Prefabs-tab:



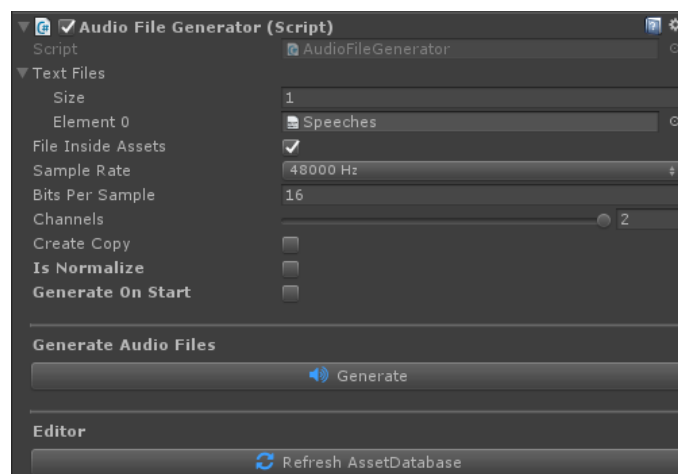
4.3. Other components

The other components can be added in the same way as "RTVoice".

4.3.1. AudioFileGenerator

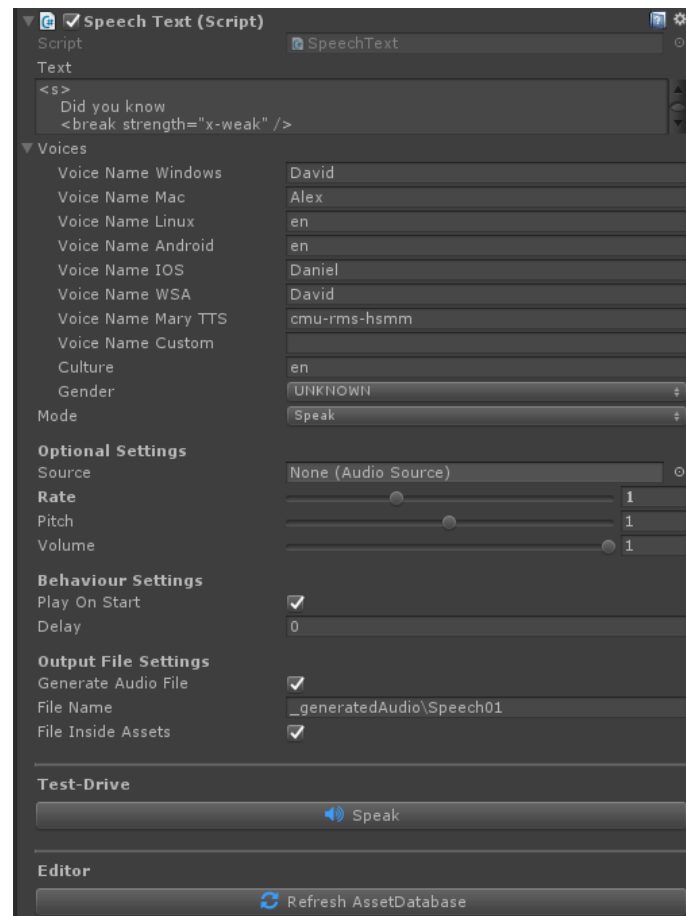
This scene generates audio files from text files with lines like:

```
#Text;Output file (without extension);Voice name;Rate;Pitch;Volume  
This is a test speech;Speeches\Mary01;cmu-slt-hsmm;1.2;0.85;0.95
```



4.3.2. SpeechText

Allows to speak and store generated audio.

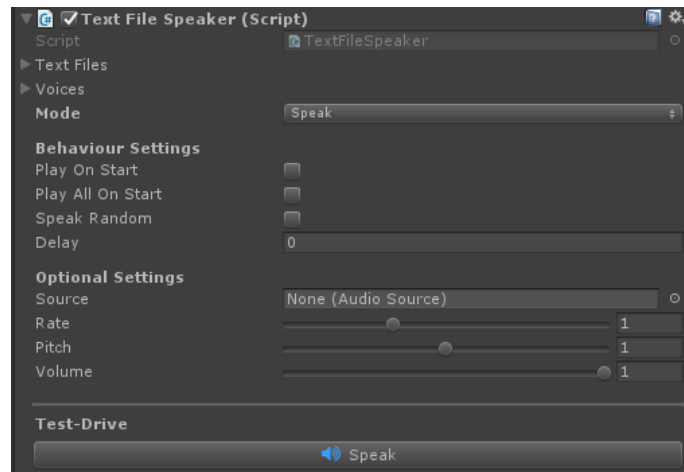


4.3.3. Sequencer

Simple sequencer for dialogues.

4.3.4. TextFileSpeaker

Allows to speak text files.



4.3.5. Loudspeaker

Loudspeaker for an AudioSource.

This is useful to use a speech on multiple locations in the game.

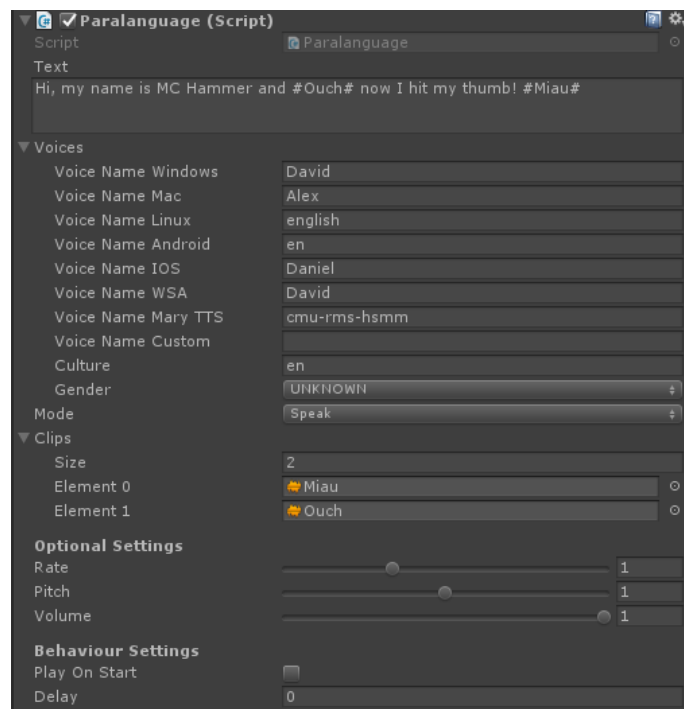
4.3.6. VoiceInitializer

This component allows to initialize voices to provide lag-free speeches. It's especially useful for Android.

Add it together with RT-Voice to the first scene (e.g. splash screen).

4.3.7. Paralanguage

Paralanguage allows to use sounds inside a speech:



It works like this: add 1-n audio clips (names without spaces). Then add text and fill in the desired clips with the # as pre- and postfix.

4.4. Differences between standard and native mode

In the **standard** mode the TTS-system of the OS will **convert** text to an **audio** file and return it to **Unity** as an "**AudioSource**" for further use (like changing the volume, pitch etc.).

On the other hand, the **native** mode **delegates** the speech-task **entirely** to the underlying TTS-system (outside of Unity). It offers less **control** but it uses slightly **less performance**.

We clearly **recommend** using the **standard** mode.

4.5. Speaker.cs vs. LiveSpeaker.cs

"Speaker.cs" is the main class of RT-Voice and presents the API via methods.

"LiveSpeaker.cs" on the other hand is a wrapper for "Speaker.cs" and presents the API as normal C#-instance via public methods. The main usage of "LiveSpeaker.cs" is as a receiver for "SendMessage"-calls.

4.6. MaryTTS

MaryTTS is an open-source TTS with a server, client and many voices.

It enables TTS under all Unity platforms.

Customize everything by yourself, just follow their guides:

<http://mary.dfki.de/>

To enable MaryTTS, simply check "MaryTTS" in the RTVoice-component and configure the URL and port.

4.6.1. Important

The default server in RT-Voice is the test server from MaryTTS.

Never release a product with the **default configuration** and install your own server (local/remote)!

4.6.2. Account for our MaryTTS-service

We offer a service for MaryTTS. It's currently free and in early beta-stage, this means it could be sometimes slow or unavailable.

If you're interested in getting a test account, [contact us](#).

4.6.3. Installation guide

We created a guide which should help installing a MaryTTS-server with HTTPS (needed for the WebGL-platform).

It can be found under "Assets/crosstales/RTVoice/Documentation/MaryTTS.pdf".

5. API

The asset contains various classes and methods. The most important are explained here. Make sure to **include** the **name space** in the relevant source files:

```
using Crosstales.RTVoice;
```

5.1. Speaker

The "Speaker.cs" is a singleton and contains the following important methods.

5.1.1. Speak

Speaks a text with a given voice and optional AudioSource.

For example:

```
//Immediately speak "hello world" with the first available voice  
Speaker.Instance.Speak("hello world", audioSource);
```

```
//Immediately speak "hello world" with the first English voice (if available  
else it uses the first voice on the OS)  
Speaker.Instance.Speak("hello world", audioSource,  
Speaker.Instance.VoiceForCulture("en"));
```

```
// Prepare speak "hello world" with the first available voice (without  
AudioSource.Play() - this is up to you). With this technique, all audio texts  
of a scene can be created in advance and the AudioSource can be modified in  
various ways  
Speaker.Instance.Speak("hello world", audioSource, null, false);
```

5.1.2. SpeakNative

Speaks a text with a given voice.

For example:

```
//Speak "hello world" with the first available voice  
Speaker.Instance.SpeakNative("hello world");
```

```
//Speak "hello world" with the first English voice (if available else it uses  
the first voice on the OS)
```

```
Speaker.Instance.SpeakNative("hello world",  
Speaker.Instance.VoiceForCulture("en"));
```

5.1.3. Silence

Silence all active TTS-voices.

Example:

```
//silence all voices  
Speaker.Instance.Silence();
```

5.1.4. Voices

```
List<Voice> Voices
```

Returns all available voices (alphabetically ordered by 'Name').

5.1.5. VoicesForGender

```
List<Voice> VoicesForGender(Model.Enum.Gender gender, string culture)
```

Returns all available voices for a given gender and optional culture (alphabetically ordered by 'Name').

5.1.6. VoiceForGender

```
Voice VoiceForGender(Model.Enum.Gender gender, string culture, int index,  
string fallbackCulture)
```

Returns a voice for the given gender and optional culture/index/fallbackCulture.

5.1.7. VoicesForCulture

```
List<Voice> VoicesForCulture(string culture)
```

Returns all available voices for a given culture (alphabetically ordered by 'Name').

5.1.8. VoiceForCulture

`voice voiceForCulture(string culture, int index, string fallbackCulture)`

Returns a voice for the given culture and optional index/fallbackCulture.

5.1.9. VoiceForName

`Voice voiceForName(string name)`

Returns the voice for the given name or null if not found.

5.1.10. Cultures

`List<string> cultures`

Returns all available cultures (alphabetically ordered by 'Culture').

5.2. Callbacks

There are various callbacks available. Subscribe them in the "Start"-method and unsubscribe in "OnDestroy".

5.2.1. Voices ready

```
VoicesReady();
```

```
VoicesReady OnVoicesReady;
```

Triggered as soon as the voices of a provider are ready to use.

5.2.2. Speak start and complete

```
SpeakStart(wrapper wrapper);
```

```
SpeakStart OnSpeakStart;
```

Triggered whenever a speak is started.

```
SpeakComplete(wrapper wrapper);
```

```
SpeakComplete OnSpeakComplete;
```

Triggered whenever a native speak is completed.

5.2.1. Current word (native, Windows and iOS only)

```
SpeakCurrentWord(wrapper wrapper, string[] speechTextArray, int wordIndex);
```

```
SpeakCurrentWord OnSpeakCurrentWord;
```

Triggered whenever a new word is spoken (native, Windows and iOS only).

5.2.2. Current phoneme (native, Windows only)

```
SpeakCurrentPhoneme(wrapper wrapper, string phoneme);
```

```
SpeakCurrentPhoneme OnSpeakCurrentPhoneme;
```

Triggered whenever a new phoneme is spoken (native mode, Windows only).

5.2.3. Current viseme (native, Windows only)

```
SpeakCurrentViseme(wrapper wrapper, string viseme);
```

```
SpeakCurrentViseme OnSpeakCurrentViseme;
```

Triggered whenever a new viseme is spoken (native mode, Windows only).

5.2.4. Speak audio generation start and complete

`SpeakAudioGenerationStart(wrapper wrapper);`

`SpeakAudioGenerationStart` **`OnSpeakAudioGenerationStart`**;

Triggered whenever a speak audio generation is started.

`SpeakAudioGenerationComplete(wrapper wrapper);`

`SpeakAudioGenerationComplete` **`OnSpeakAudioGenerationComplete`**;

Triggered whenever a speak audio generation is completed.

5.2.5. Provider change

`ProviderChange(string provider);`

`ProviderChange` **`OnProviderChange`**;

Triggered whenever a provider changes (e.g. from Windows to MaryTTS).

5.2.6. Errors

`ErrorInfo(string info);`

`ErrorInfo` **`OnErrorInfo`**;

Triggered whenever an error occurs.

5.2.7. Example

Wait until all voices are ready. Then speak the text and get informed when it starts and completes:

```
public void OnEnable() {
    // Subscribe event listeners
    Speaker.Instance.OnVoicesReady += voicesReady;
    Speaker.Instance.OnSpeakStart += speakStart;
    Speaker.Instance.OnSpeakComplete += speakComplete;
}

public void OnDisable() {
    // Unsubscribe event listeners
    Speaker.Instance.OnVoicesReady -= voicesReady;
    Speaker.Instance.OnSpeakStart -= speakStart;
    Speaker.Instance.OnSpeakComplete -= speakComplete;
}

private void voicesReady() {
    Debug.Log("voicesReady: " + wrapper);
    Speaker.Instance.SpeakNative("Hello world!");
}

private void speakStart(Model.Wrapper wrapper) {
    Debug.Log("speakStart: " + wrapper);
}

private void speakComplete(Model.Wrapper wrapper) {
    Debug.LogWarning("speakComplete: " + wrapper);
}
```

5.3. Complete API

For more details, please see the [RTVoice-api.pdf](#)

6. Additional voices

RT-Voice works great with third-party voices (e.g. [Cereproc](#)).

6.1. Windows

All SAPI5-compatible voices are supported. Microsoft also provides a wide range of voices for different languages:

<https://support.microsoft.com/en-us/topic/how-to-download-text-to-speech-languages-for-windows-10-d5a6b612-b3ae-423f-afa5-4f6caf1ec5d3?ui=en-us&rs=en-us&ad=us>

There are many free and commercial voices available. Here is a site with more than 36 free voices in 13 languages:

<https://zero2000.com/free-text-to-speech-natural-voices.html>

6.2. macOS

Apple delivers many voices for different languages. To add or customize them, follow the tutorial below:

<http://osxdaily.com/2011/07/25/how-to-add-new-voices-to-mac-os-x/>

6.3. Android

Follow the link to add various voices on an Android phone:

<http://hyperionics.com/TtsSetup/eng/TtsInfo.html>

6.4. iOS

Follow the link to change the quality of the installed voices:

<https://support.apple.com/en-us/HT202362>

6.5. WSA (UWP) / Xbox

See 6.1.

6.6. MaryTTS

<http://mary.dfki.de/>

6.7. eSpeak

<http://espeak.sourceforge.net/languages.html>

7. Setup eSpeak

eSpeak and esSpeak-NG are open-source TTS solutions that work under Windows, macOS, Linux and Android.

To take advantage of it, please install it on the PC.

7.1. Windows

http://sourceforge.net/projects/espeak/files/espeak/espeak-1.48/setup_espeak-1.48.04.exe

7.1. macOS

<http://sourceforge.net/projects/espeak/files/espeak/espeak-1.45/espeak-1.45.04-OSX.zip>

7.2. Linux

```
sudo apt-get install espeak
```

7.3. eSpeak-NG

<https://github.com/espeak-ng/espeak-ng#binaries>

To use eSpeak-NG in RT-Voice, please change the variables **DEFAULT_TTS_LINUX** and **DEFAULT_TTS_LINUX_DATA** in the region "eSpeak" inside the class "Constants.cs".

8. Third-party support (PlayMaker etc.)

RT-Voice supports various products from other companies. Please import the desired packages from "Assets/Plugins/crosstales/RTVoice/3rd party".

9. Verify installation

Check if RT-Voice is installed:

```
#if CT_RTV
    Debug.Log("RTV installed: " + Util.Constants.ASSET_VERSION);
#else
    Debug.LogWarning("RTV NOT installed!");
#endif
```

10. Upgrade to new version

Follow this steps to upgrade the version of "RT-Voice PRO":

1. Update "RT-Voice PRO" to the latest version from the "Unity AssetStore"
2. Inside the project in Unity, go to menu "File" => "New Scene"
3. Delete the "Assets/Plugins/crosstales/RTVoice" folder from the Project-view
4. Import the latest version downloaded from the "Unity AssetStore"

11. Important notes

11.1. iOS

On some device with iOS 13+ the voices can't be found.

This is due a bug of in the iOS-upgrade which corrupts the voices.

To solve it, go to the "Settings" (and look further for "Voices" or "Speech") on your device and re-install all needed voices.

12. Problems, improvements etc.

If you encounter any problems with this asset, just [send us an email](#) with a problem description and the invoice number and we will try to solve it.

13. Release notes

See "VERSIONS.txt" under "Assets/crosstales/RTVoice/Documentation" or online:

<https://crosstales.com/media/data/assets/rtvoice/VERSIONS.txt>

14. Credits

The icons are based on [Font Awesome](#).

15. Contact and further information

crosstales LLC

Schanzeneggstrasse 1

CH-8002 Zürich

Homepage: <https://www.crosstales.com/en/portfolio/rtvoice/>

Email: rtvoice@crosstales.com

AssetStore: <https://assetstore.unity.com/lists/crosstales-42213>

Forum: <https://forum.unity.com/threads/rt-voice-run-time-text-to-speech-solution.340046/>

Documentation: <https://www.crosstales.com/media/data/assets/rtvoice/RTVoice-doc.pdf>

API: <https://www.crosstales.com/en/assets/rtvoice/api/>

WebGL-Demo: <https://www.crosstales.com/media/data/assets/rtvoice/webgl/>



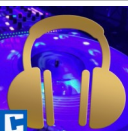

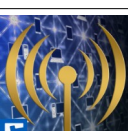
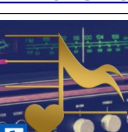

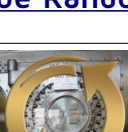

Windows-Demo: https://drive.google.com/file/d/11BFDLbj9vmyrfltXeS_d9zK3oM9h8TaS/view?usp=sharing

Mac-Demo: <https://drive.google.com/file/d/11A7u7g7Cs63Bu7lv7ER9KFTVCU9oWAaT/view?usp=sharing>

Linux-Demo: https://drive.google.com/file/d/1XViADtStr8NXKHPMejXQ6iY4C2U_Bh3o/view?usp=sharing

Android-Demo: <https://drive.google.com/file/d/11FUbfuvSAAT5JgdolUKZO1sCPkTAFYJG/view?usp=sharing>

16. Our other assets

 <p><u>3D Skybox</u></p>	<p>Those beautiful packages contain professional 8k, HDR, stereoscopic 360° real-world skyboxes for your projects.</p>
 <p><u>Bad Word Filter</u></p>	<p>The "Bad Word Filter" (aka profanity or obscenity filter) is exactly what the title suggests: a tool to filter swearwords and other "bad sentences".</p>
 <p><u>DJ</u></p>	<p>DJ is a player for external music-files. It allows a user to play his own sound inside any Unity-app. It can also read ID3-tags.</p>
 <p><u>File Browser</u></p>	<p>File Browser is a wrapper for native file dialogs on Windows, macOS, Linux and UWP (WSA).</p>
 <p><u>Online Check</u></p>	<p>You need a reliable solution to check for Internet availability? Here it is!</p>
 <p><u>Radio</u></p>	<p>Radio allows implementing free music from Internet radio stations into your project..</p>
 <p><u>True Random</u></p>	<p>True Random can generate "true random" numbers for you and your application. The randomness comes from atmospheric noise, which for many purposes is better than the pseudo-random number algorithms typically used in computer programs.</p>
 <p><u>Turbo Backup</u></p>	<p>Turbo Backup is the fastest and safest way to backup your Unity project. It only stores the difference between the last backup, this makes it incredible fast.</p>
 <p><u>Turbo Builder</u></p>	<p>Turbo Builder creates builds for multiple platforms in one click. It works together with <u>Turbo Switch</u> to offer an incredible fast build pipeline.</p>



Turbo Switch

Turbo Switch is a Unity editor extension to reduce the time for assets to import during platform switches. We measured speed improvements up to 100x faster than the built-in switch in Unity.

17. Appendix

17.1. Voices

The voices of all available providers ordered by language.

Please see chapter 6 on how-to add additional voices.

17.1.1. Windows

Windows 10 (64bit, tested: 28.04.2020)

Number of voices: 24 (but can easily be extended with additional voices)

Name	Gender	Language
Microsoft Server Speech Text to Speech Voice (ca-ES, Herenà)	FEMALE	ca-ES
Microsoft Server Speech Text to Speech Voice (da-DK, Helle)	FEMALE	da-DK
Microsoft Hedda Desktop	FEMALE	de-DE
Microsoft Server Speech Text to Speech Voice (en-AU, Hayley)	FEMALE	en-AU
Microsoft Server Speech Text to Speech Voice (en-CA, Heather)	FEMALE	en-CA
Microsoft Server Speech Text to Speech Voice (en-IN, Heera)	FEMALE	en-IN
Microsoft Server Speech Text to Speech Voice (en-US, Helen)	FEMALE	en-US
Microsoft Server Speech Text to Speech Voice (en-US, ZiraPro)	FEMALE	en-US
Microsoft Zira Desktop	FEMALE	en-US
Microsoft Server Speech Text to Speech Voice (es-ES, Helena)	FEMALE	es-ES
Microsoft Server Speech Text to Speech Voice (es-MX, Hilda)	FEMALE	es-MX
Microsoft Server Speech Text to Speech Voice (fi-FI, Heidi)	FEMALE	fi-FI
Microsoft Server Speech Text to Speech Voice (fr-CA, Harmonie)	FEMALE	fr-CA
Microsoft Server Speech Text to Speech Voice (fr-FR, Hortense)	FEMALE	fr-FR
Microsoft Server Speech Text to Speech Voice (it-IT, Lucia)	FEMALE	it-IT
Microsoft Server Speech Text to Speech Voice (ja-JP, Haruka)	FEMALE	ja-JP
Microsoft Server Speech Text to Speech Voice (ko-KR, Hyeonja)	FEMALE	ko-KR

Heami)		
Microsoft Server Speech Text to Speech Voice (nb-NO, Hulda)	FEMALE	nb-NO
Microsoft Server Speech Text to Speech Voice (nl-NL, Hanna)	FEMALE	nl-NL
Microsoft Server Speech Text to Speech Voice (pl-PL, Paulina)	FEMALE	pl-PL
Microsoft Server Speech Text to Speech Voice (pt-BR, Heloisa)	FEMALE	pt-BR
Microsoft Server Speech Text to Speech Voice (pt-PT, Helia)	FEMALE	pt-PT
Microsoft Server Speech Text to Speech Voice (ru-RU, Elena)	FEMALE	ru-RU
Microsoft Server Speech Text to Speech Voice (sv-SE, Hedvig)	FEMALE	sv-SE

17.1.2. macOS

Version 10.15.3 (tested: 28.04.2020)

Number of voices: 46

Name	Gender	Language
Maged	MALE	ar-SA
Zuzana	FEMALE	cs-CZ
Sara	FEMALE	da-DK
Anna	FEMALE	de-DE
Melina	FEMALE	el-GR
Karen	FEMALE	en-AU
Daniel	MALE	en-GB
Moirá	FEMALE	en-IE
Rishi	UNKNOWN	en-IN
Veena	FEMALE	en-IN
Fiona	FEMALE	en-scotland
Fred	MALE	en-US
Samantha	FEMALE	en-US
Victoria	FEMALE	en-US
Tessa	FEMALE	en-ZA
Diego	MALE	es-AR
Jorge	MALE	es-ES
Monica	FEMALE	es-ES
Juan	MALE	es-MX
Paulina	FEMALE	es-MX
Satu	FEMALE	fi-FI
Amelie	FEMALE	fr-CA
Thomas	MALE	fr-FR
Carmit	FEMALE	he-IL

Lekha	FEMALE	hi-IN
Mariska	FEMALE	hu-HU
Damayanti	FEMALE	id-ID
Luca	MALE	it-IT
Kyoko	FEMALE	ja-JP
Yuna	FEMALE	ko-KR
Nora	FEMALE	nb-NO
Ellen	FEMALE	nl-BE
Xander	MALE	nl-NL
Zosia	FEMALE	pl-PL
Luciana	FEMALE	pt-BR
Joana	FEMALE	pt-PT
Ioana	FEMALE	ro-RO
Milena	FEMALE	ru-RU
Yuri	MALE	ru-RU
Laura	FEMALE	sk-SK
Alva	FEMALE	sv-SE
Kanya	FEMALE	th-TH
Yelda	FEMALE	tr-TR
Ting-Ting	FEMALE	zh-CN
Sin-ji	FEMALE	zh-HK
Mei-Jia	FEMALE	zh-TW

17.1.3.Android

Version 9 (Google TTS, tested: 28.04.2020)

Number of voices: 427

Name	Gender	Language
bn-bd-x-ban-network	UNKNOWN	bn-bd
bn-IN-language	UNKNOWN	bn-IN
bn-in-x-bin-local	UNKNOWN	bn-in
bn-in-x-bin-network	UNKNOWN	bn-in
bn-in-x-bnf-local	UNKNOWN	bn-in
bn-in-x-bnf-network	UNKNOWN	bn-in
bn-in-x-bnm-local	UNKNOWN	bn-in
bn-in-x-bnm-network	UNKNOWN	bn-in
bs	UNKNOWN	bs
ca	UNKNOWN	ca
cmn-cn-x-ccc-local	UNKNOWN	cmn-c
cmn-cn-x-ccc-network	UNKNOWN	cmn-c
cmn-cn-x-ccd-local	UNKNOWN	cmn-c
cmn-cn-x-ccd-network	UNKNOWN	cmn-c
cmn-cn-x-cce-local	UNKNOWN	cmn-c
cmn-cn-x-cce-network	UNKNOWN	cmn-c
cmn-cn-x-ssa-local	UNKNOWN	cmn-c

cmn-cn-x-ssa-network	UNKNOWN	cmn-c
cmn-tw-x-ctc-local	UNKNOWN	cmn-t
cmn-tw-x-ctc-network	UNKNOWN	cmn-t
cmn-tw-x-ctd-local	UNKNOWN	cmn-t
cmn-tw-x-ctd-network	UNKNOWN	cmn-t
cmn-tw-x-cte-local	UNKNOWN	cmn-t
cmn-tw-x-cte-network	UNKNOWN	cmn-t
cs-CZ-language	UNKNOWN	cs-CZ
cs-cz-x-jfs-local	UNKNOWN	cs-cz
cs-cz-x-jfs-network	UNKNOWN	cs-cz
cy	UNKNOWN	cy
da-DK-language	UNKNOWN	da-DK
da-dk-x-kfm-local	UNKNOWN	da-dk
da-dk-x-kfm-network	UNKNOWN	da-dk
de-DE-language	UNKNOWN	de-DE
de-de-x-deb-local	UNKNOWN	de-de
de-de-x-deb-network	UNKNOWN	de-de
de-de-x-deg-local	UNKNOWN	de-de
de-de-x-deg-network	UNKNOWN	de-de
de-de-x-nfh-local	UNKNOWN	de-de
de-de-x-nfh-network	UNKNOWN	de-de
de-de-x-nfh#female_1-local	FEMALE	de-de
de-de-x-nfh#female_2-local	FEMALE	de-de
de-de-x-nfh#female_3-local	FEMALE	de-de
de-de-x-nfh#male_1-local	MALE	de-de
de-de-x-nfh#male_2-local	MALE	de-de
de-de-x-nfh#male_3-local	MALE	de-de
el-GR-language	UNKNOWN	el-GR
el-gr-x-vfz-local	UNKNOWN	el-gr
el-gr-x-vfz-network	UNKNOWN	el-gr
en-AU-language	UNKNOWN	en-AU
en-au-x-afh-local	UNKNOWN	en-au
en-au-x-afh-network	UNKNOWN	en-au
en-au-x-ava-local	UNKNOWN	en-au
en-au-x-ava-network	UNKNOWN	en-au
en-au-x-aub-local	UNKNOWN	en-au
en-au-x-aub-network	UNKNOWN	en-au
en-au-x-auc-local	UNKNOWN	en-au
en-au-x-auc-network	UNKNOWN	en-au
en-au-x-aud-local	UNKNOWN	en-au
en-au-x-aud-network	UNKNOWN	en-au
en-GB-language	UNKNOWN	en-GB
en-gb-x-fis-local	UNKNOWN	en-gb
en-gb-x-fis-network	UNKNOWN	en-gb
en-gb-x-fis#female_1-local	FEMALE	en-gb
en-gb-x-fis#female_2-local	FEMALE	en-gb
en-gb-x-fis#female_3-local	FEMALE	en-gb

en-gb-x-fis#male_1-local	MALE	en-gb
en-gb-x-fis#male_2-local	MALE	en-gb
en-gb-x-fis#male_3-local	MALE	en-gb
en-gb-x-gba-local	UNKNOWN	en-gb
en-gb-x-gba-network	UNKNOWN	en-gb
en-gb-x-gbb-local	UNKNOWN	en-gb
en-gb-x-gbb-network	UNKNOWN	en-gb
en-gb-x-gbc-local	UNKNOWN	en-gb
en-gb-x-gbc-network	UNKNOWN	en-gb
en-gb-x-gbd-local	UNKNOWN	en-gb
en-gb-x-gbd-network	UNKNOWN	en-gb
en-gb-x-rjs-local	UNKNOWN	en-gb
en-gb-x-rjs-network	UNKNOWN	en-gb
en-gb-x-rjs#female_1-local	FEMALE	en-gb
en-gb-x-rjs#female_2-local	FEMALE	en-gb
en-gb-x-rjs#female_3-local	FEMALE	en-gb
en-gb-x-rjs#male_1-local	MALE	en-gb
en-gb-x-rjs#male_2-local	MALE	en-gb
en-gb-x-rjs#male_3-local	MALE	en-gb
en-IN-language	UNKNOWN	en-IN
en-in-x-ahp-local	UNKNOWN	en-in
en-in-x-ahp-network	UNKNOWN	en-in
en-in-x-ahp#female_1-local	FEMALE	en-in
en-in-x-ahp#female_2-local	FEMALE	en-in
en-in-x-ahp#female_3-local	FEMALE	en-in
en-in-x-ahp#male_1-local	MALE	en-in
en-in-x-ahp#male_2-local	MALE	en-in
en-in-x-ahp#male_3-local	MALE	en-in
en-in-x-cxx-local	UNKNOWN	en-in
en-in-x-cxx-network	UNKNOWN	en-in
en-in-x-cxx#female_1-local	FEMALE	en-in
en-in-x-cxx#female_2-local	FEMALE	en-in
en-in-x-cxx#female_3-local	FEMALE	en-in
en-in-x-cxx#male_1-local	MALE	en-in
en-in-x-cxx#male_2-local	MALE	en-in
en-in-x-cxx#male_3-local	MALE	en-in
en-in-x-enc-local	UNKNOWN	en-in
en-in-x-enc-network	UNKNOWN	en-in
en-in-x-end-local	UNKNOWN	en-in
en-in-x-end-network	UNKNOWN	en-in
en-in-x-ene-local	UNKNOWN	en-in
en-in-x-ene-network	UNKNOWN	en-in
en-NG-language	UNKNOWN	en-NG
en-ng-x-tfn-local	UNKNOWN	en-ng
en-ng-x-tfn-network	UNKNOWN	en-ng
en-US-language	UNKNOWN	en-US
en-us-x-sfg-local	UNKNOWN	en-us

en-us-x-sfg-network	UNKNOWN	en-us
en-us-x-sfg#female_1-local	FEMALE	en-us
en-us-x-sfg#female_2-local	FEMALE	en-us
en-us-x-sfg#female_3-local	FEMALE	en-us
en-us-x-sfg#male_1-local	MALE	en-us
en-us-x-sfg#male_2-local	MALE	en-us
en-us-x-sfg#male_3-local	MALE	en-us
en-us-x-tpd-local	UNKNOWN	en-us
en-us-x-tpd-network	UNKNOWN	en-us
es-ES-language	UNKNOWN	es-ES
es-es-x-ana-local	UNKNOWN	es-es
es-es-x-ana-network	UNKNOWN	es-es
es-es-x-ana#female_1-local	FEMALE	es-es
es-es-x-ana#female_2-local	FEMALE	es-es
es-es-x-ana#female_3-local	FEMALE	es-es
es-es-x-ana#male_1-local	MALE	es-es
es-es-x-ana#male_2-local	MALE	es-es
es-es-x-ana#male_3-local	MALE	es-es
es-US-language	UNKNOWN	es-US
es-us-x-sfb-local	UNKNOWN	es-us
es-us-x-sfb-network	UNKNOWN	es-us
es-us-x-sfb#female_1-local	FEMALE	es-us
es-us-x-sfb#female_2-local	FEMALE	es-us
es-us-x-sfb#female_3-local	FEMALE	es-us
es-us-x-sfb#male_1-local	MALE	es-us
es-us-x-sfb#male_2-local	MALE	es-us
es-us-x-sfb#male_3-local	MALE	es-us
et-EE-language	UNKNOWN	et-EE
et-ee-x-tms-local	UNKNOWN	et-ee
et-ee-x-tms-network	UNKNOWN	et-ee
fi-FI-language	UNKNOWN	fi-FI
fi-fi-x-afi-local	UNKNOWN	fi-fi
fi-fi-x-afi-network	UNKNOWN	fi-fi
fil-PH-language	UNKNOWN	fil-P
fil-ph-x-cfc-local	UNKNOWN	fil-p
fil-ph-x-cfc-network	UNKNOWN	fil-p
fr-CA-language	UNKNOWN	fr-CA
fr-ca-x-caa-local	UNKNOWN	fr-ca
fr-ca-x-caa-network	UNKNOWN	fr-ca
fr-ca-x-cab-local	UNKNOWN	fr-ca
fr-ca-x-cab-network	UNKNOWN	fr-ca
fr-ca-x-cac-local	UNKNOWN	fr-ca
fr-ca-x-cac-network	UNKNOWN	fr-ca
fr-ca-x-cad-local	UNKNOWN	fr-ca
fr-ca-x-cad-network	UNKNOWN	fr-ca
fr-FR-language	UNKNOWN	fr-FR
fr-fr-x-fra-local	UNKNOWN	fr-fr

fr-fr-x-fra-network	UNKNOWN	fr-fr
fr-fr-x-frb-local	UNKNOWN	fr-fr
fr-fr-x-frb-network	UNKNOWN	fr-fr
fr-fr-x-frc-local	UNKNOWN	fr-fr
fr-fr-x-frc-network	UNKNOWN	fr-fr
fr-fr-x-frd-local	UNKNOWN	fr-fr
fr-fr-x-frd-network	UNKNOWN	fr-fr
fr-fr-x-vlf-local	UNKNOWN	fr-fr
fr-fr-x-vlf-network	UNKNOWN	fr-fr
fr-fr-x-vlf#female_1-local	FEMALE	fr-fr
fr-fr-x-vlf#female_2-local	FEMALE	fr-fr
fr-fr-x-vlf#female_3-local	FEMALE	fr-fr
fr-fr-x-vlf#male_1-local	MALE	fr-fr
fr-fr-x-vlf#male_2-local	MALE	fr-fr
fr-fr-x-vlf#male_3-local	MALE	fr-fr
gu-IN-language	UNKNOWN	gu-IN
gu-in-x-guf-local	UNKNOWN	gu-in
gu-in-x-guf-network	UNKNOWN	gu-in
gu-in-x-gum-local	UNKNOWN	gu-in
gu-in-x-gum-network	UNKNOWN	gu-in
hi-IN-language	UNKNOWN	hi-IN
hi-in-x-cfn-local	UNKNOWN	hi-in
hi-in-x-cfn-network	UNKNOWN	hi-in
hi-in-x-cfn#female_1-local	FEMALE	hi-in
hi-in-x-cfn#female_2-local	FEMALE	hi-in
hi-in-x-cfn#female_3-local	FEMALE	hi-in
hi-in-x-cfn#male_1-local	MALE	hi-in
hi-in-x-cfn#male_2-local	MALE	hi-in
hi-in-x-cfn#male_3-local	MALE	hi-in
hi-in-x-hic-local	UNKNOWN	hi-in
hi-in-x-hic-network	UNKNOWN	hi-in
hi-in-x-hid-local	UNKNOWN	hi-in
hi-in-x-hid-network	UNKNOWN	hi-in
hi-in-x-hie-local	UNKNOWN	hi-in
hi-in-x-hie-network	UNKNOWN	hi-in
hr	UNKNOWN	hr
hu-HU-language	UNKNOWN	hu-HU
hu-hu-x-kfl-local	UNKNOWN	hu-hu
hu-hu-x-kfl-network	UNKNOWN	hu-hu
id-ID-language	UNKNOWN	id-ID
id-id-x-dfz-local	UNKNOWN	id-id
id-id-x-dfz-network	UNKNOWN	id-id
id-id-x-dfz#female_1-local	FEMALE	id-id
id-id-x-dfz#female_2-local	FEMALE	id-id
id-id-x-dfz#female_3-local	FEMALE	id-id
id-id-x-dfz#male_1-local	MALE	id-id
id-id-x-dfz#male_2-local	MALE	id-id

id-id-x-dfz#male_3-local	MALE	id-id
id-id-x-idc-local	UNKNOWN	id-id
id-id-x-idc-network	UNKNOWN	id-id
id-id-x-idd-local	UNKNOWN	id-id
id-id-x-idd-network	UNKNOWN	id-id
id-id-x-ide-local	UNKNOWN	id-id
id-id-x-ide-network	UNKNOWN	id-id
it-IT-language	UNKNOWN	it-IT
it-it-x-itb-local	UNKNOWN	it-it
it-it-x-itb-network	UNKNOWN	it-it
it-it-x-itc-local	UNKNOWN	it-it
it-it-x-itc-network	UNKNOWN	it-it
it-it-x-itd-local	UNKNOWN	it-it
it-it-x-itd-network	UNKNOWN	it-it
it-it-x-kda-local	UNKNOWN	it-it
it-it-x-kda-network	UNKNOWN	it-it
it-it-x-kda#female_1-local	FEMALE	it-it
it-it-x-kda#female_2-local	FEMALE	it-it
it-it-x-kda#female_3-local	FEMALE	it-it
it-it-x-kda#male_1-local	MALE	it-it
it-it-x-kda#male_2-local	MALE	it-it
it-it-x-kda#male_3-local	MALE	it-it
ja-JP-language	UNKNOWN	ja-JP
ja-jp-x-htm-local	UNKNOWN	ja-jp
ja-jp-x-htm-network	UNKNOWN	ja-jp
ja-jp-x-htm#female_1-local	FEMALE	ja-jp
ja-jp-x-htm#female_2-local	FEMALE	ja-jp
ja-jp-x-htm#female_3-local	FEMALE	ja-jp
ja-jp-x-htm#male_1-local	MALE	ja-jp
ja-jp-x-htm#male_2-local	MALE	ja-jp
ja-jp-x-htm#male_3-local	MALE	ja-jp
ja-jp-x-jab-local	UNKNOWN	ja-jp
ja-jp-x-jab-network	UNKNOWN	ja-jp
ja-jp-x-jac-local	UNKNOWN	ja-jp
ja-jp-x-jac-network	UNKNOWN	ja-jp
ja-jp-x-jad-local	UNKNOWN	ja-jp
ja-jp-x-jad-network	UNKNOWN	ja-jp
jv-ID-language	UNKNOWN	jv-ID
jv-id-x-jvf-local	UNKNOWN	jv-id
jv-id-x-jvf-network	UNKNOWN	jv-id
km-KH-language	UNKNOWN	km-KH
km-kh-x-khm-local	UNKNOWN	km-kh
km-kh-x-khm-network	UNKNOWN	km-kh
kn-IN-language	UNKNOWN	kn-IN
kn-in-x-knf-local	UNKNOWN	kn-in
kn-in-x-knf-network	UNKNOWN	kn-in
kn-in-x-knm-local	UNKNOWN	kn-in

kn-in-x-knm-network	UNKNOWN	kn-in
ko-KR-language	UNKNOWN	ko-KR
ko-kr-x-ism-local	UNKNOWN	ko-kr
ko-kr-x-ism-network	UNKNOWN	ko-kr
ko-kr-x-ism#female_1-local	FEMALE	ko-kr
ko-kr-x-ism#female_2-local	FEMALE	ko-kr
ko-kr-x-ism#female_3-local	FEMALE	ko-kr
ko-kr-x-ism#male_1-local	MALE	ko-kr
ko-kr-x-ism#male_2-local	MALE	ko-kr
ko-kr-x-ism#male_3-local	MALE	ko-kr
ko-kr-x-kob-local	UNKNOWN	ko-kr
ko-kr-x-kob-network	UNKNOWN	ko-kr
ko-kr-x-koc-local	UNKNOWN	ko-kr
ko-kr-x-koc-network	UNKNOWN	ko-kr
ko-kr-x-kod-local	UNKNOWN	ko-kr
ko-kr-x-kod-network	UNKNOWN	ko-kr
ku	UNKNOWN	ku
la	UNKNOWN	la
ml-IN-language	UNKNOWN	ml-IN
ml-in-x-mlf-local	UNKNOWN	ml-in
ml-in-x-mlf-network	UNKNOWN	ml-in
ml-in-x-mlm-local	UNKNOWN	ml-in
ml-in-x-mlm-network	UNKNOWN	ml-in
mr-IN-language	UNKNOWN	mr-IN
mr-in-x-mrf-local	UNKNOWN	mr-in
mr-in-x-mrf-network	UNKNOWN	mr-in
nb-NO-language	UNKNOWN	nb-NO
nb-no-x-cfl-local	UNKNOWN	nb-no
nb-no-x-cfl-network	UNKNOWN	nb-no
nb-no-x-cmj-local	UNKNOWN	nb-no
nb-no-x-cmj-network	UNKNOWN	nb-no
nb-no-x-rfj-local	UNKNOWN	nb-no
nb-no-x-rfj-network	UNKNOWN	nb-no
nb-no-x-tfs-local	UNKNOWN	nb-no
nb-no-x-tfs-network	UNKNOWN	nb-no
nb-no-x-tmg-local	UNKNOWN	nb-no
nb-no-x-tmg-network	UNKNOWN	nb-no
ne-NP-language	UNKNOWN	ne-NP
ne-np-x-nep-local	UNKNOWN	ne-np
ne-np-x-nep-network	UNKNOWN	ne-np
nl-NL-language	UNKNOWN	nl-NL
nl-nl-x-bmh-local	UNKNOWN	nl-nl
nl-nl-x-bmh-network	UNKNOWN	nl-nl
nl-nl-x-dma-local	UNKNOWN	nl-nl
nl-nl-x-dma-network	UNKNOWN	nl-nl
nl-nl-x-lfc-local	UNKNOWN	nl-nl
nl-nl-x-lfc-network	UNKNOWN	nl-nl

nl-nl-x-tfb-local	UNKNOWN	nl-nl
nl-nl-x-tfb-network	UNKNOWN	nl-nl
nl-nl-x-yfr-local	UNKNOWN	nl-nl
nl-nl-x-yfr-network	UNKNOWN	nl-nl
pl-PL-language	UNKNOWN	pl-PL
pl-pl-x-afb-local	UNKNOWN	pl-pl
pl-pl-x-afb-network	UNKNOWN	pl-pl
pl-pl-x-bmg-local	UNKNOWN	pl-pl
pl-pl-x-bmg-network	UNKNOWN	pl-pl
pl-pl-x-jmk-local	UNKNOWN	pl-pl
pl-pl-x-jmk-network	UNKNOWN	pl-pl
pl-pl-x-oda-local	UNKNOWN	pl-pl
pl-pl-x-oda-network	UNKNOWN	pl-pl
pl-pl-x-oda#female_1-local	FEMALE	pl-pl
pl-pl-x-oda#female_2-local	FEMALE	pl-pl
pl-pl-x-oda#female_3-local	FEMALE	pl-pl
pl-pl-x-oda#male_1-local	MALE	pl-pl
pl-pl-x-oda#male_2-local	MALE	pl-pl
pl-pl-x-oda#male_3-local	MALE	pl-pl
pl-pl-x-zfg-local	UNKNOWN	pl-pl
pl-pl-x-zfg-network	UNKNOWN	pl-pl
pt-BR-language	UNKNOWN	pt-BR
pt-br-x-afs-local	UNKNOWN	pt-br
pt-br-x-afs-network	UNKNOWN	pt-br
pt-br-x-afs#female_1-local	FEMALE	pt-br
pt-br-x-afs#female_2-local	FEMALE	pt-br
pt-br-x-afs#female_3-local	FEMALE	pt-br
pt-br-x-afs#male_1-local	MALE	pt-br
pt-br-x-afs#male_2-local	MALE	pt-br
pt-br-x-afs#male_3-local	MALE	pt-br
pt-PT-language	UNKNOWN	pt-PT
pt-pt-x-jfb-local	UNKNOWN	pt-pt
pt-pt-x-jfb-network	UNKNOWN	pt-pt
pt-pt-x-jmn-local	UNKNOWN	pt-pt
pt-pt-x-jmn-network	UNKNOWN	pt-pt
pt-pt-x-pmj-local	UNKNOWN	pt-pt
pt-pt-x-pmj-network	UNKNOWN	pt-pt
pt-pt-x-sfs-local	UNKNOWN	pt-pt
pt-pt-x-sfs-network	UNKNOWN	pt-pt
ro-RO-language	UNKNOWN	ro-RO
ro-ro-x-vfv-local	UNKNOWN	ro-ro
ro-ro-x-vfv-network	UNKNOWN	ro-ro
ru-RU-language	UNKNOWN	ru-RU
ru-ru-x-dfc-local	UNKNOWN	ru-ru
ru-ru-x-dfc-network	UNKNOWN	ru-ru
ru-ru-x-dfc#female_1-local	FEMALE	ru-ru
ru-ru-x-dfc#female_2-local	FEMALE	ru-ru

ru-ru-x-dfc#female_3-local	FEMALE	ru-ru
ru-ru-x-dfc#male_1-local	MALE	ru-ru
ru-ru-x-dfc#male_2-local	MALE	ru-ru
ru-ru-x-dfc#male_3-local	MALE	ru-ru
ru-ru-x-ruc-local	UNKNOWN	ru-ru
ru-ru-x-ruc-network	UNKNOWN	ru-ru
ru-ru-x-rud-local	UNKNOWN	ru-ru
ru-ru-x-rud-network	UNKNOWN	ru-ru
ru-ru-x-rue-local	UNKNOWN	ru-ru
ru-ru-x-rue-network	UNKNOWN	ru-ru
ru-ru-x-ruf-local	UNKNOWN	ru-ru
ru-ru-x-ruf-network	UNKNOWN	ru-ru
si-LK-language	UNKNOWN	si-LK
si-lk-x-sin-local	UNKNOWN	si-lk
si-lk-x-sin-network	UNKNOWN	si-lk
sk-SK-language	UNKNOWN	sk-SK
sk-sk-x-sfk-local	UNKNOWN	sk-sk
sk-sk-x-sfk-network	UNKNOWN	sk-sk
sq	UNKNOWN	sq
sr	UNKNOWN	sr
su-ID-language	UNKNOWN	su-ID
su-id-x-suf-local	UNKNOWN	su-id
su-id-x-suf-network	UNKNOWN	su-id
sv-SE-language	UNKNOWN	sv-SE
sv-se-x-lfs-local	UNKNOWN	sv-se
sv-se-x-lfs-network	UNKNOWN	sv-se
sw	UNKNOWN	sw
ta-IN-language	UNKNOWN	ta-IN
ta-in-x-taf-local	UNKNOWN	ta-in
ta-in-x-taf-network	UNKNOWN	ta-in
ta-in-x-tag-local	UNKNOWN	ta-in
ta-in-x-tag-network	UNKNOWN	ta-in
te-IN-language	UNKNOWN	te-IN
te-in-x-tef-local	UNKNOWN	te-in
te-in-x-tef-network	UNKNOWN	te-in
te-in-x-tem-local	UNKNOWN	te-in
te-in-x-tem-network	UNKNOWN	te-in
th-TH-language	UNKNOWN	th-TH
th-th-x-mol-local	UNKNOWN	th-th
th-th-x-mol-network	UNKNOWN	th-th
th-th-x-mol#female_1-local	FEMALE	th-th
th-th-x-mol#female_2-local	FEMALE	th-th
th-th-x-mol#female_3-local	FEMALE	th-th
th-th-x-mol#male_1-local	MALE	th-th
th-th-x-mol#male_2-local	MALE	th-th
th-th-x-mol#male_3-local	MALE	th-th
tr-TR-language	UNKNOWN	tr-TR

tr-tr-x-ama-local	UNKNOWN	tr-tr
tr-tr-x-ama-network	UNKNOWN	tr-tr
tr-tr-x-cfs-local	UNKNOWN	tr-tr
tr-tr-x-cfs-network	UNKNOWN	tr-tr
tr-tr-x-efu-local	UNKNOWN	tr-tr
tr-tr-x-efu-network	UNKNOWN	tr-tr
tr-tr-x-mfm-local	UNKNOWN	tr-tr
tr-tr-x-mfm-network	UNKNOWN	tr-tr
tr-tr-x-tmc-local	UNKNOWN	tr-tr
tr-tr-x-tmc-network	UNKNOWN	tr-tr
uk-UA-language	UNKNOWN	uk-UA
uk-ua-x-hfd-local	UNKNOWN	uk-ua
uk-ua-x-hfd-network	UNKNOWN	uk-ua
ur-PK-language	UNKNOWN	ur-PK
ur-pk-x-cfn-local	UNKNOWN	ur-pk
ur-pk-x-cfn-network	UNKNOWN	ur-pk
ur-pk-x-urm-local	UNKNOWN	ur-pk
ur-pk-x-urm-network	UNKNOWN	ur-pk
vi-VN-language	UNKNOWN	vi-VN
vi-vn-x-gft-local	UNKNOWN	vi-vn
vi-vn-x-gft-network	UNKNOWN	vi-vn
vi-vn-x-vic-local	UNKNOWN	vi-vn
vi-vn-x-vic-network	UNKNOWN	vi-vn
vi-vn-x-vid-local	UNKNOWN	vi-vn
vi-vn-x-vid-network	UNKNOWN	vi-vn
vi-vn-x-vie-local	UNKNOWN	vi-vn
vi-vn-x-vie-network	UNKNOWN	vi-vn
vi-vn-x-vif-local	UNKNOWN	vi-vn
vi-vn-x-vif-network	UNKNOWN	vi-vn
yue-HK-language	UNKNOWN	yue-H
yue-hk-x-jar-local	UNKNOWN	yue-h
yue-hk-x-jar-network	UNKNOWN	yue-h
zh-CN-language	UNKNOWN	zh-CN
zh-TW-language	UNKNOWN	zh-TW

17.1.4.iOS

Version 13.3.1 (tested: 28.04.2020)

Number of voices: 52

Name	Gender	Language
Maged	MALE	ar-SA
Zuzana	FEMALE	cs-CZ
Sara	FEMALE	da-DK
Anna	FEMALE	de-DE
Helena	FEMALE	de-DE
Martin	MALE	de-DE
Melina	FEMALE	el-GR
Catherine	FEMALE	en-AU
Gordon	MALE	en-AU
Karen	FEMALE	en-AU
Arthur	MALE	en-GB
Daniel	MALE	en-GB
Martha	FEMALE	en-GB
Moirá	FEMALE	en-IE
Rishi	UNKNOWN	en-IN
Fred	MALE	en-US
Nicky	FEMALE	en-US
Samantha	FEMALE	en-US
Tessa	FEMALE	en-ZA
Mónica	FEMALE	es-ES
Paulina	FEMALE	es-MX
Satu	FEMALE	fi-FI
Amélie	FEMALE	fr-CA
Daniel	MALE	fr-FR
Marie	FEMALE	fr-FR
Thomas	MALE	fr-FR
Carmit	FEMALE	he-IL
Lekha	FEMALE	hi-IN
Mariska	FEMALE	hu-HU
Damayanti	FEMALE	id-ID
Alice	FEMALE	it-IT
Hattori	MALE	ja-JP
Kyoko	FEMALE	ja-JP
O-ren	FEMALE	ja-JP
Yuna	FEMALE	ko-KR
Ellen	FEMALE	nl-BE
Xànder	MALE	nl-NL
Nora	FEMALE	no-NO
Zosia	FEMALE	pl-PL
Luciana	FEMALE	pt-BR

Joana	FEMALE	pt-PT
Ioana	FEMALE	ro-RO
Milena	FEMALE	ru-RU
Laura	FEMALE	sk-SK
Alva	FEMALE	sv-SE
Kanya	FEMALE	th-TH
Yelda	FEMALE	tr-TR
Li-mu	FEMALE	zh-CN
Tian-Tian	UNKNOWN	zh-CN
Yu-shu	FEMALE	zh-CN
Sin-Ji	FEMALE	zh-HK
Mei-Jia	FEMALE	zh-TW

17.1.5.WSA (UWP) / XBox

Depends on the installed voices.

17.1.6. MaryTTS

Version 5.2 (tested: 28.04.2020)

Number of voices: 30

Name	Gender	Language
bits2	MALE	de
bits3	MALE	de
bits3-hsmm	MALE	de
bits4	FEMALE	de
dfki-pavoque-neutral	MALE	de
dfki-pavoque-neutral-hsmm	MALE	de
dfki-obadiah	MALE	en-GB
dfki-obadiah-hsmm	MALE	en-GB
dfki-poppy	FEMALE	en-GB
dfki-poppy-hsmm	FEMALE	en-GB
dfki-prudence	FEMALE	en-GB
dfki-prudence-hsmm	FEMALE	en-GB
dfki-spike	MALE	en-GB
dfki-spike-hsmm	MALE	en-GB
cmu-bdl	MALE	en-US
cmu-bdl-hsmm	MALE	en-US
cmu-rms	MALE	en-US
cmu-rms-hsmm	MALE	en-US
cmu-slt	FEMALE	en-US
cmu-slt-hsmm	FEMALE	en-US
enst-camille	FEMALE	fr
enst-camille-hsmm	FEMALE	fr

enst-dennys-hsmm	MALE	fr
upmc-jessica	FEMALE	fr
upmc-jessica-hsmm	FEMALE	fr
upmc-pierre	MALE	fr
upmc-pierre-hsmm	MALE	fr
istc-lucia-hsmm	FEMALE	it
dfki-ot	MALE	tr
dfki-ot-hsmm	MALE	tr

17.1.7. eSpeak

Version 1.48.03 (tested: 28.04.2020)

Number of voices: 83

Name	Gender	Language
amharic-test	UNKNOWN	am
aragonese	MALE	an
assamese-test	UNKNOWN	as
azerbaijani-test	UNKNOWN	az
bulgarian	UNKNOWN	bg
bengali-test	MALE	bn
bosnian	MALE	bs
catalan	MALE	ca
czech	MALE	cs
welsh	MALE	cy
danish	MALE	da
german	MALE	de
greek	MALE	el
default	MALE	en
english	MALE	en-gb
en-scottish	MALE	en-sc
english-north	MALE	en-uk-north
english_rp	MALE	en-uk-rp
english_wmids	MALE	en-uk-wmids
english-us	MALE	en-us
en-westindies	MALE	en-wi
esperanto	MALE	eo
spanish	MALE	es
spanish-latin-am	MALE	es-la
estonian	UNKNOWN	et
basque-test	UNKNOWN	eu
persian	UNKNOWN	fa
persian-pinglish	UNKNOWN	fa-pin
finnish	MALE	fi
french-Belgium	MALE	fr-be
french	MALE	fr-fr

irish-gaeilge	UNKNOWN	ga
scottish-gaelic-test	UNKNOWN	gd
greek-ancient	MALE	grc
gujarati-test	UNKNOWN	gu
hindi	MALE	hi
croatian	MALE	hr
hungarian	MALE	hu
armenian	MALE	hy
armenian-west	MALE	hy-west
indonesian	MALE	id
icelandic	MALE	is
italian	MALE	it
lojban	UNKNOWN	jbo
georgian	UNKNOWN	ka
greenlandic	UNKNOWN	kl
kannada	UNKNOWN	kn
korean-test	MALE	ko
kurdish	MALE	ku
latin	MALE	la
lingua_franca_nova	MALE	lfn
lithuanian	MALE	lt
latvian	MALE	lv
macedonian	MALE	mk
malayalam	MALE	ml
malay	MALE	ms
nahuatl-classical	MALE	nci
nepali	MALE	ne
dutch	MALE	nl
norwegian	MALE	no
oriya-test	UNKNOWN	or
punjabi	UNKNOWN	pa
papiamentto-test	UNKNOWN	pap
polish	MALE	pl
brazil	MALE	pt-br
portugal	MALE	pt-pt
romanian	MALE	ro
russian	MALE	ru
sinhala-test	UNKNOWN	si
slovak	MALE	sk
slovenian-test	UNKNOWN	sl
serbian	MALE	sr
swedish	MALE	sv
swahili-test	MALE	sw
tamil	MALE	ta
telugu-test	UNKNOWN	te
turkish	MALE	tr
urdu-test	UNKNOWN	ur

vietnam	MALE	vi
vietnam_hue	MALE	vi-hue
vietnam_sgn	MALE	vi-sgn
Mandarin	MALE	zh
cantonese	MALE	zh-yue

17.1.8. AWS Polly

Tested: 28.04.2020

Number of voices: 58

Name	Gender	Language
Zeina	FEMALE	ar
Gwyneth	FEMALE	cy-GB
Mads	MALE	da-DK
Naja	FEMALE	da-DK
Hans	MALE	de-DE
Marlene	FEMALE	de-DE
Vicki	FEMALE	de-DE
Nicole	FEMALE	en-AU
Russell	MALE	en-AU
Brian	MALE	en-GB
Emma	FEMALE	en-GB
Geraint	MALE	en-GB-WLS
Raveena	FEMALE	en-IN
Ivy	FEMALE	en-US
Joanna	FEMALE	en-US
Joey	MALE	en-US
Justin	MALE	en-US
Kendra	FEMALE	en-US
Kimberly	FEMALE	en-US
Matthew	MALE	en-US
Salli	FEMALE	en-US
Conchita	FEMALE	es-ES
Enrique	MALE	es-ES
Lucia	FEMALE	es-ES
Mia	FEMALE	es-MX
Lupe	FEMALE	es-US
Miguel	MALE	es-US
Penelope	FEMALE	es-US
Chantal	FEMALE	fr-CA
Celine	FEMALE	fr-FR
Lea	FEMALE	fr-FR
Mathieu	MALE	fr-FR
Dora	FEMALE	is-IS
Karl	MALE	is-IS

Bianca	FEMALE	it-IT
Carla	FEMALE	it-IT
Giorgio	MALE	it-IT
Mizuki	FEMALE	ja-JP
Takumi	MALE	ja-JP
Seoyeon	FEMALE	ko-KR
Lotte	FEMALE	nl-NL
Ruben	MALE	nl-NL
Liv	FEMALE	no-NO
Ewa	FEMALE	pl-PL
Jacek	MALE	pl-PL
Jan	MALE	pl-PL
Maja	FEMALE	pl-PL
Camila	FEMALE	pt-BR
Ricardo	MALE	pt-BR
Vitoria	FEMALE	pt-BR
Cristiano	MALE	pt-PT
Ines	FEMALE	pt-PT
Carmen	FEMALE	ro-RO
Maxim	MALE	ru-RU
Tatyana	FEMALE	ru-RU
Astrid	FEMALE	sv-SE
Filiz	FEMALE	tr-TR
Zhiyu	FEMALE	zh

17.1.9. Klattersynth

Unlimited variations of voices can be created.

17.1.10. SAPI Unity

Has the same voices as in chapter 17.1.1.

17.1.11. WebGL Speech Synthesis

Google Chrome 81.0.4044.122 (tested: 28.04.2020)

Number of voices: 17

Name	Gender	Language
Google UK English Female	FEMALE	en-GB
Google UK English Male	MALE	en-GB
Google US English	UNKNOWN	en-US
Google español	UNKNOWN	es-ES
Google español de Estados Unidos	UNKNOWN	es-US
Google français	UNKNOWN	fr-FR
Google हिन्दी	UNKNOWN	hi-IN
Google italiano	UNKNOWN	it-IT
Google 日本語	UNKNOWN	ja-JP
Google 한국의	UNKNOWN	ko-KR
Google Nederlands	UNKNOWN	nl-NL
Google polski	UNKNOWN	pl-PL
Google português do Brasil	UNKNOWN	pt-BR
Google русский	UNKNOWN	ru-RU
Google 普通话 (中国大陆)	UNKNOWN	zh-CN
Google 粵語 (香港)	UNKNOWN	zh-HK
Google 國語 (臺灣)	UNKNOWN	zh-TW

17.1.12. Azure

Tested: 28.04.2020

Number of voices: 79

Name	Gender	Language
Hoda	FEMALE	ar-EG
Naayf	MALE	ar-SA
Ivan	MALE	bg-BG
HerenaRUS	FEMALE	ca-ES
Jakub	MALE	cs-CZ
HelleRUS	FEMALE	da-DK
Michael	MALE	de-AT
Karsten	MALE	de-CH
Hedda	FEMALE	de-DE
HeddaRUS	FEMALE	de-DE
Stefan-Apollo	MALE	de-DE
Stefanos	MALE	el-GR

Catherine	FEMALE	en-AU
HayleyRUS	FEMALE	en-AU
HeatherRUS	FEMALE	en-CA
Linda	FEMALE	en-CA
George-Apollo	MALE	en-GB
HazelRUS	FEMALE	en-GB
Susan-Apollo	FEMALE	en-GB
Sean	MALE	en-IE
Heera-Apollo	FEMALE	en-IN
PriyaRUS	FEMALE	en-IN
Ravi-Apollo	MALE	en-IN
BenjaminRUS	MALE	en-US
Guy24kRUS	MALE	en-US
Jessa24kRUS	FEMALE	en-US
JessaRUS	FEMALE	en-US
ZiraRUS	FEMALE	en-US
HelenaRUS	FEMALE	es-ES
Laura-Apollo	FEMALE	es-ES
Pablo-Apollo	MALE	es-ES
HildaRUS	FEMALE	es-MX
Raul-Apollo	MALE	es-MX
HeidiRUS	FEMALE	fi-FI
Caroline	FEMALE	fr-CA
HarmonieRUS	FEMALE	fr-CA
Guillaume	MALE	fr-CH
HortenseRUS	FEMALE	fr-FR
Julie-Apollo	FEMALE	fr-FR
Paul-Apollo	MALE	fr-FR
Asaf	MALE	he-IL
Hemant	MALE	hi-IN
Kalpana	FEMALE	hi-IN
Kalpana-Apollo	FEMALE	hi-IN
Matej	MALE	hr-HR
Szabolcs	MALE	hu-HU
Cosimo-Apollo	MALE	it-IT
LuciaRUS	FEMALE	it-IT
Ayumi-Apollo	FEMALE	ja-JP
HarukaRUS	FEMALE	ja-JP
Ichiro-Apollo	MALE	ja-JP
HeamiRUS	FEMALE	ko-KR
Rizwan	MALE	ms-MY
HuldaRUS	FEMALE	nb-NO
HannaRUS	FEMALE	nl-NL
PaulinaRUS	FEMALE	pl-PL
Daniel-Apollo	MALE	pt-BR
HeloisaRUS	FEMALE	pt-BR
HeliaRUS	FEMALE	pt-PT

Andrei	MALE	ro-RO
EkaterinaRUS	FEMALE	ru-RU
Irina-Apollo	FEMALE	ru-RU
Pavel-Apollo	MALE	ru-RU
Filip	MALE	sk-SK
Lado	MALE	sl-SI
HedvigRUS	FEMALE	sv-SE
Valluvar	MALE	ta-IN
Chitra	FEMALE	te-IN
Pattara	MALE	th-TH
SedaRUS	FEMALE	tr-TR
HuihuiRUS	FEMALE	zh-CN
Kangkang-Apollo	MALE	zh-CN
Yaoyao-Apollo	FEMALE	zh-CN
Danny-Apollo	MALE	zh-HK
Tracy-Apollo	FEMALE	zh-HK
TracyRUS	FEMALE	zh-HK
HanHanRUS	FEMALE	zh-TW
Yating-Apollo	FEMALE	zh-TW
Zhiwei-Apollo	MALE	zh-TW

17.1.13. Google Cloud Speech

Tested: 28.04.2020

Number of voices: 221

Name	Gender	Language
ar-XA-Standard-C	MALE	ar-XA
ar-XA-Standard-D	FEMALE	ar-XA
ar-XA-Wavenet-A	FEMALE	ar-XA
ar-XA-Wavenet-B	MALE	ar-XA
ar-XA-Wavenet-C	MALE	ar-XA
bn-IN-Standard-A	FEMALE	bn-IN
bn-IN-Standard-B	MALE	bn-IN
cmn-CN-Standard-A	FEMALE	cmn-CN
cmn-CN-Standard-B	MALE	cmn-CN
cmn-CN-Standard-C	MALE	cmn-CN
cmn-CN-Standard-D	FEMALE	cmn-CN
cmn-CN-Wavenet-A	FEMALE	cmn-CN
cmn-CN-Wavenet-B	MALE	cmn-CN
cmn-CN-Wavenet-C	MALE	cmn-CN
cmn-CN-Wavenet-D	FEMALE	cmn-CN
cmn-TW-Standard-A-Alpha	FEMALE	cmn-TW
cmn-TW-Standard-B-Alpha	MALE	cmn-TW
cmn-TW-Standard-C-Alpha	MALE	cmn-TW
cmn-TW-Wavenet-A-Alpha	FEMALE	cmn-TW
cmn-TW-Wavenet-B-Alpha	MALE	cmn-TW
cmn-TW-Wavenet-C-Alpha	MALE	cmn-TW
cs-CZ-Standard-A	FEMALE	cs-CZ
cs-CZ-Wavenet-A	FEMALE	cs-CZ
da-DK-Standard-A	FEMALE	da-DK
da-DK-Wavenet-A	FEMALE	da-DK
de-DE-Standard-A	FEMALE	de-DE
de-DE-Standard-B	MALE	de-DE
de-DE-Standard-E	MALE	de-DE
de-DE-Standard-F	FEMALE	de-DE
de-DE-Wavenet-A	FEMALE	de-DE
de-DE-Wavenet-B	MALE	de-DE
de-DE-Wavenet-C	FEMALE	de-DE
de-DE-Wavenet-D	MALE	de-DE
de-DE-Wavenet-E	MALE	de-DE
de-DE-Wavenet-F	FEMALE	de-DE
el-GR-Standard-A	FEMALE	el-GR
el-GR-Wavenet-A	FEMALE	el-GR
en-AU-Standard-A	FEMALE	en-AU
en-AU-Standard-B	MALE	en-AU
en-AU-Standard-C	FEMALE	en-AU

en-AU-Standard-D	MALE	en-AU
en-AU-Wavenet-A	FEMALE	en-AU
en-AU-Wavenet-B	MALE	en-AU
en-AU-Wavenet-C	FEMALE	en-AU
en-AU-Wavenet-D	MALE	en-AU
en-GB-Standard-A	FEMALE	en-GB
en-GB-Standard-B	MALE	en-GB
en-GB-Standard-C	FEMALE	en-GB
en-GB-Standard-D	MALE	en-GB
en-GB-Wavenet-A	FEMALE	en-GB
en-GB-Wavenet-B	MALE	en-GB
en-GB-Wavenet-C	FEMALE	en-GB
en-GB-Wavenet-D	MALE	en-GB
en-IN-Standard-A	FEMALE	en-IN
en-IN-Standard-B	MALE	en-IN
en-IN-Standard-C	MALE	en-IN
en-IN-Standard-D	FEMALE	en-IN
en-IN-Wavenet-A	FEMALE	en-IN
en-IN-Wavenet-B	MALE	en-IN
en-IN-Wavenet-C	MALE	en-IN
en-IN-Wavenet-D	FEMALE	en-IN
en-US-Standard-B	MALE	en-US
en-US-Standard-C	FEMALE	en-US
en-US-Standard-D	MALE	en-US
en-US-Standard-E	FEMALE	en-US
en-US-Wavenet-A	MALE	en-US
en-US-Wavenet-B	MALE	en-US
en-US-Wavenet-C	FEMALE	en-US
en-US-Wavenet-D	MALE	en-US
en-US-Wavenet-E	FEMALE	en-US
en-US-Wavenet-F	FEMALE	en-US
es-ES-Standard-A	FEMALE	es-ES
fi-FI-Standard-A	FEMALE	fi-FI
fi-FI-Wavenet-A	FEMALE	fi-FI
fil-PH-Standard-A	FEMALE	fil-PH
fil-PH-Wavenet-A	FEMALE	fil-PH
fr-CA-Standard-A	FEMALE	fr-CA
fr-CA-Standard-B	MALE	fr-CA
fr-CA-Standard-C	FEMALE	fr-CA
fr-CA-Standard-D	MALE	fr-CA
fr-CA-Wavenet-A	FEMALE	fr-CA
fr-CA-Wavenet-B	MALE	fr-CA
fr-CA-Wavenet-C	FEMALE	fr-CA
fr-CA-Wavenet-D	MALE	fr-CA
fr-FR-Standard-A	FEMALE	fr-FR
fr-FR-Standard-B	MALE	fr-FR
fr-FR-Standard-C	FEMALE	fr-FR

fr-FR-Standard-D	MALE	fr-FR
fr-FR-Standard-E	FEMALE	fr-FR
fr-FR-Wavenet-A	FEMALE	fr-FR
fr-FR-Wavenet-B	MALE	fr-FR
fr-FR-Wavenet-C	FEMALE	fr-FR
fr-FR-Wavenet-D	MALE	fr-FR
fr-FR-Wavenet-E	FEMALE	fr-FR
gu-IN-Standard-A	FEMALE	gu-IN
gu-IN-Standard-B	MALE	gu-IN
hi-IN-Standard-A	FEMALE	hi-IN
hi-IN-Standard-B	MALE	hi-IN
hi-IN-Standard-C	MALE	hi-IN
hi-IN-Standard-D	FEMALE	hi-IN
hi-IN-Wavenet-A	FEMALE	hi-IN
hi-IN-Wavenet-B	MALE	hi-IN
hi-IN-Wavenet-C	MALE	hi-IN
hi-IN-Wavenet-D	FEMALE	hi-IN
hu-HU-Standard-A	FEMALE	hu-HU
hu-HU-Wavenet-A	FEMALE	hu-HU
id-ID-Standard-A	FEMALE	id-ID
id-ID-Standard-B	MALE	id-ID
id-ID-Standard-C	MALE	id-ID
id-ID-Standard-D	FEMALE	id-ID
id-ID-Wavenet-A	FEMALE	id-ID
id-ID-Wavenet-B	MALE	id-ID
id-ID-Wavenet-C	MALE	id-ID
id-ID-Wavenet-D	FEMALE	id-ID
it-IT-Standard-A	FEMALE	it-IT
it-IT-Standard-B	FEMALE	it-IT
it-IT-Standard-C	MALE	it-IT
it-IT-Standard-D	MALE	it-IT
it-IT-Wavenet-A	FEMALE	it-IT
it-IT-Wavenet-B	FEMALE	it-IT
it-IT-Wavenet-C	MALE	it-IT
it-IT-Wavenet-D	MALE	it-IT
jā-JP-Standard-A	FEMALE	jā-JP
jā-JP-Standard-B	FEMALE	jā-JP
jā-JP-Standard-C	MALE	jā-JP
jā-JP-Standard-D	MALE	jā-JP
jā-JP-Wavenet-A	FEMALE	jā-JP
jā-JP-Wavenet-B	FEMALE	jā-JP
jā-JP-Wavenet-C	MALE	jā-JP
jā-JP-Wavenet-D	MALE	jā-JP
kn-IN-Standard-A	FEMALE	kn-IN
kn-IN-Standard-B	MALE	kn-IN
ko-KR-Standard-A	FEMALE	ko-KR
ko-KR-Standard-B	FEMALE	ko-KR

ko-KR-Standard-C	MALE	ko-KR
ko-KR-Standard-D	MALE	ko-KR
ko-KR-Wavenet-A	FEMALE	ko-KR
ko-KR-Wavenet-B	FEMALE	ko-KR
ko-KR-Wavenet-C	MALE	ko-KR
ko-KR-Wavenet-D	MALE	ko-KR
ml-IN-Standard-A	FEMALE	ml-IN
ml-IN-Standard-B	MALE	ml-IN
nb-NO-Standard-A	FEMALE	nb-NO
nb-NO-Standard-B	MALE	nb-NO
nb-NO-Standard-C	FEMALE	nb-NO
nb-NO-Standard-D	MALE	nb-NO
nb-no-Standard-E	FEMALE	nb-NO
nb-NO-Wavenet-A	FEMALE	nb-NO
nb-NO-Wavenet-B	MALE	nb-NO
nb-NO-Wavenet-C	FEMALE	nb-NO
nb-NO-Wavenet-D	MALE	nb-NO
nb-no-Wavenet-E	FEMALE	nb-NO
nl-NL-Standard-A	FEMALE	nl-NL
nl-NL-Standard-B	MALE	nl-NL
nl-NL-Standard-C	MALE	nl-NL
nl-NL-Standard-D	FEMALE	nl-NL
nl-NL-Standard-E	FEMALE	nl-NL
nl-NL-Wavenet-A	FEMALE	nl-NL
nl-NL-Wavenet-B	MALE	nl-NL
nl-NL-Wavenet-C	MALE	nl-NL
nl-NL-Wavenet-D	FEMALE	nl-NL
nl-NL-Wavenet-E	FEMALE	nl-NL
pl-PL-Standard-A	FEMALE	pl-PL
pl-PL-Standard-B	MALE	pl-PL
pl-PL-Standard-C	MALE	pl-PL
pl-PL-Standard-D	FEMALE	pl-PL
pl-PL-Standard-E	FEMALE	pl-PL
pl-PL-Wavenet-A	FEMALE	pl-PL
pl-PL-Wavenet-B	MALE	pl-PL
pl-PL-Wavenet-C	MALE	pl-PL
pl-PL-Wavenet-D	FEMALE	pl-PL
pl-PL-Wavenet-E	FEMALE	pl-PL
pt-BR-Standard-A	FEMALE	pt-BR
pt-BR-Wavenet-A	FEMALE	pt-BR
pt-PT-Standard-A	FEMALE	pt-PT
pt-PT-Standard-B	MALE	pt-PT
pt-PT-Standard-C	MALE	pt-PT
pt-PT-Standard-D	FEMALE	pt-PT
pt-PT-Wavenet-A	FEMALE	pt-PT
pt-PT-Wavenet-B	MALE	pt-PT
pt-PT-Wavenet-C	MALE	pt-PT

pt-PT-Wavenet-D	FEMALE	pt-PT
ru-RU-Standard-A	FEMALE	ru-RU
ru-RU-Standard-B	MALE	ru-RU
ru-RU-Standard-C	FEMALE	ru-RU
ru-RU-Standard-D	MALE	ru-RU
ru-RU-Standard-E	FEMALE	ru-RU
ru-RU-Wavenet-A	FEMALE	ru-RU
ru-RU-Wavenet-B	MALE	ru-RU
ru-RU-Wavenet-C	FEMALE	ru-RU
ru-RU-Wavenet-D	MALE	ru-RU
ru-RU-Wavenet-E	FEMALE	ru-RU
sk-SK-Standard-A	FEMALE	sk-SK
sk-SK-Wavenet-A	FEMALE	sk-SK
sv-SE-Standard-A	FEMALE	sv-SE
sv-SE-Wavenet-A	FEMALE	sv-SE
tā-IN-Standard-A	FEMALE	tā-IN
tā-IN-Standard-B	MALE	tā-IN
te-IN-Standard-A	FEMALE	te-IN
te-IN-Standard-B	MALE	te-IN
th-TH-Standard-A	FEMALE	th-TH
tr-TR-Standard-A	FEMALE	tr-TR
tr-TR-Standard-B	MALE	tr-TR
tr-TR-Standard-C	FEMALE	tr-TR
tr-TR-Standard-D	FEMALE	tr-TR
tr-TR-Standard-E	MALE	tr-TR
tr-TR-Wavenet-A	FEMALE	tr-TR
tr-TR-Wavenet-B	MALE	tr-TR
tr-TR-Wavenet-C	FEMALE	tr-TR
tr-TR-Wavenet-D	FEMALE	tr-TR
tr-TR-Wavenet-E	MALE	tr-TR
uk-UA-Standard-A	FEMALE	uk-UA
uk-UA-Wavenet-A	FEMALE	uk-UA
vi-VN-Standard-A	FEMALE	vi-VN
vi-VN-Standard-B	MALE	vi-VN
vi-VN-Standard-C	FEMALE	vi-VN
vi-VN-Standard-D	MALE	vi-VN
vi-VN-Wavenet-A	FEMALE	vi-VN
vi-VN-Wavenet-B	MALE	vi-VN
vi-VN-Wavenet-C	FEMALE	vi-VN
vi-VN-Wavenet-D	MALE	vi-VN