# Text to speech

DreamGrid has a text to speech converter that can make wave and mp3 files from text. These files can be played by your viewer in-world by uploading the wav file, or by playing either wav or mp3 using media on a prim.

This feature is still in development, but the basics shown here will remain unchanged.

An API allows LSL scripts to request Mp3 files by name for media-on-a-prim use so that products can talk in-world, without uploading as wav files.

## Requirements

You must have a sound card to use this feature. VPS Servers typically do not have sound cards. Physical servers as well. There are several solutions:

* If you have physical access to the server, plug in a USB sound card.
* If you do not have access, you can install a virtual sound card.

## GUI

This GUI makes the files.

Graphical user interface, text, application, email

Description automatically generated

## Voices

Windows 10 has four speech engines including two that are enabled by DreamGrid. Windows 7 comes with just one voice, typically Microsoft Anna.

You can find SAPI5 voices that are on your machine in the Control Panel. You are looking for the Text to Speech window, which is hidden away in the Speech Recognition settings in Control Panel. Some SAPI5 voices may be hidden (e.g., Acapela voices) but the ones you can see there can work in any program that uses SAPI5.

You may add more SAPI5 voices by purchasing. Sources of compatible speech systems:

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| --- | --- |
| Vendor | URL |
| Acapela | https://www.acapela-group.com/ |
| Cereproc | <https://www.cereproc.com/en/buy-voices> |
| Ivona | https://nextup.com/ivona/ |
| AT&T | <https://nextup.com/attnv.html> |

## Use

You can control the speech in several ways.

Any line beginning with M: will speak in a male voice. F: will speak in a female voice. Any line without a letter is spoken in the pre-selected voice.

Select the desired engine and click the button:



Then click View Folder

The folder should show a list of wave and MP3 files. If you have Apache enabled, these files are available as web files at <http://YOURDNSNAME.outworldz.net/TTS>

## API

You can make the system speak over the Web, or by using Media On A Prim (MOAP)

### Parameters:

TTS= Something to say

If a line begins with M: it will speak in a Male voice

If a line begins with F: it will speak in a female voice

Sex=M it will speak in a Male voice

Sex=F it will speak in a female voice

Voice=Zira|Mark|Some SAPI5 voice name

APIKey=123 must match the Voice password set in the settings->Speech Panel

Speak=Any value will cause it to speak using the default voice device, typically the servers’ speakers.

The response should be the world "Spoken"

If Speak is left off, a 301 Redirect to the mp3 will be sent

Minimum URL to say "Hello" in the default voice:

http://127.0.0.1/TTS/tts.plx?&APIKey=123&TTS=Hello

If your Apache port is not set to port 80, you must add it:

http://127.0.0.1:80/TTS/tts.plx?&APIKey=123&TTS=Hello

Speak Default Voice out of the server speakers. The HTTP responses is a 200 OK and "Spoken"

http://192.168.2.139/TTS/tts.plx?&APIkey=123&Speak=1&TTS=Hello

Use Ziras voice to say 1 2 3 4 5

http://127.0.0.1/TTS/tts.plx?TTS=test 1 2 3 4 5&Voice=Zira&APIKey=123

Force a Male voice to say A B C D

http://127.0.0.1/TTS/tts.plx?TTS=A B C D&APIKey=123&Sex=M

Force a Female voice to say A B C D

http://127.0.0.1/TTS/tts.plx?TTS=F:A B C D&APIKey=123

Force a Specific voice to say A B C D

http://127.0.0.1/TTS/tts.plx?TTS=A B C D&APIKey=123&Voice=Zira  
http://127.0.0.1/TTS/tts.plx?TTS=A B C D&APIKey=123&Voice=Mark

http://127.0.0.1/TTS/tts.plx?TTS=A B C D&APIKey=123&Voice=Eva

If you get a cached response, you can add a random number to the end with ?r=some number or phrase:

http://127.0.0.1/TTS/tts.plx?TTS=F:A B C D&APIKey=123?r=1million

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