

Package ‘mcsctts’

November 19, 2018

Version 0.4.0

Title R Client for the Microsoft Cognitive Services 'Text-to-Speech'
REST API

Description R Client for the Microsoft Cognitive Services
'Text-to-Speech' REST API, including voice synthesis. A valid account
must be registered at the Microsoft Cognitive Services website
<<https://www.microsoft.com/cognitive-services/>> in order to
obtain a (free) API key. Without an API key, this package will not
work properly.

License GPL-3

Encoding UTF-8

LazyData true

Type Package

Suggests knitr, rmarkdown, covr, tuneR, testthat

URL <https://github.com/muschellij2/mcsctts>

BugReports <https://github.com/muschellij2/mcsctts/issues>

RoxygenNote 6.1.0

Imports httr, jsonlite

NeedsCompilation no

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Repository CRAN

Date/Publication 2018-11-19 21:20:04 UTC

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create_ssml	<i>Create SSML for Passing to Synthesize</i>
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Description

Create SSML for Passing to Synthesize

Usage

```
create_ssml(script, gender = c("Female", "Male"), language = "en-US",
            escape = FALSE)
```

Arguments

script	A character vector of lines to be spoken
gender	Sex of the Speaker
language	Language to be spoken, must be from ms_language_codes
escape	Should non-standard characters be substituted? Should not be used if script has SSML tags

Value

A character string of the text and SSML markup

Examples

```
create_ssml("hey I really like things & dogs", escape = TRUE)
create_ssml("hey I really like things")
create_ssml('hey I <emphasis level="strong">really like</emphasis> things')
create_ssml('hey I <emphasis level="strong">really like</emphasis> things',
            escape = TRUE)
```

get_ms_tts_key	<i>Find API Key for Microsoft Text To Speech (TTS) or Cognitive Services</i>
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Description

Determines if `option(ms_tts_key)` or `option(ms_tts_key)` is set. If not, it stops and returns an error. If so, returns the value.

Usage

```
get_ms_tts_key(api_key = NULL, error = TRUE)
```

```
have_ms_tts_key(api_key = NULL)
```

```
set_ms_tts_key(api_key)
```

```
valid_ms_tts_key(api_key = NULL)
```

Arguments

api_key	Microsoft Cognitive Services API key
error	Should the function error if api_key = NULL?

Value

API key

Note

You can either set the API key using `option(ms_tts_key)` or have it accessible by `api_key = Sys.getenv('MS_TTS_API_KEY')`, or `api_key = Sys.getenv('MS_TTS_API_KEY1')`, or `api_key = Sys.getenv('MS_TTS_API_KEY2')`

Examples

```
res = get_ms_tts_key(error = FALSE)
```

get_ms_tts_token	<i>Get Microsoft Text To Speech (TTS) or Cognitive Services Token from API Key</i>
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Description

Get Microsoft Text To Speech (TTS) or Cognitive Services Token from API Key

Usage

```
get_ms_tts_token(api_key = NULL)
```

Arguments

api_key Microsoft Cognitive Services API key

Value

A list of the request, and token

Examples

```
if (valid_ms_tts_key()) {  
  token = get_ms_tts_token()  
}
```

language_to_ms_name *Language and Gender to Microsoft Voice Name*

Description

Language and Gender to Microsoft Voice Name

Usage

```
language_to_ms_name(language = "en-US", gender = c("Female", "Male"))  
  
validate_language_gender(language = "en-US", gender = c("Female",  
  "Male"))
```

Arguments

language A language code, see [ms_language_codes](#)
gender Either Male or Female, not all languages support both genders

Value

A character string of the name of the voice

Examples

```
language_to_ms_name()  
validate_language_gender()
```

ms_locales	<i>Locales for Microsoft Translate</i>
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Description

Locales for Microsoft Translate

Usage

```
ms_locales()

ms_locale_df()

ms_languages()

ms_language_codes()
```

Value

A list of Locales and the Speech Voices

Examples

```
ms_locales()
```

ms_synthesize	<i>Get Microsoft Text To Speech (TTS) or Cognitive Services Token from API Key</i>
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Description

Get Microsoft Text To Speech (TTS) or Cognitive Services Token from API Key

Usage

```
ms_synthesize(script, token = NULL, api_key = NULL,
  gender = c("Female", "Male"), language = "en-US",
  output_format = c("raw-16khz-16bit-mono-pcm",
    "ssml-16khz-16bit-mono-tts", "audio-16khz-16kbps-mono-siren",
    "riff-16khz-16kbps-mono-siren", "riff-16khz-16bit-mono-pcm",
    "audio-16khz-128kbitrate-mono-mp3", "audio-16khz-64kbitrate-mono-mp3",
    "audio-16khz-32kbitrate-mono-mp3"), escape = FALSE, region = NULL,
  ...)

ms_region(region = c("westus", "eastasia", "northeurope"))
```

Arguments

script	A character vector of lines to be spoken
token	An authentication token, base-64 encoded usually from get_ms_tts_token . If not provided, will be created from get_ms_tts_token
api_key	Microsoft Cognitive Services API key, if token is not provided.
gender	Sex of the Speaker
language	Language to be spoken, must be from ms_language_codes
output_format	Format of the output, see https://docs.microsoft.com/en-us/azure/cognitive-services/speech/api-reference-rest/bingvoiceoutput for more information
escape	Should non-standard characters be substituted? Should not be used if script has SSML tags. See create_ssml
region	Subscription region for your key. See https://docs.microsoft.com/en-us/azure/cognitive-services/speech-service/rest-apis#text-to-speech
...	Additional arguments to send to POST

Value

A list of the request, content, token, and 'SSML'.

Note

The content is likely in a binary format and the output depends on the 'output_format' chosen. For example, if the 'output_format' is an 'MP3', then see below example

Examples

```
## Not run:
if (have_ms_tts_key()) {
  res = ms_synthesize(
    script = "hey, how are you doing? I'm doing pretty good",
    output_format = "audio-16khz-128kbitrate-mono-mp3")
  tmp <- tempfile()
  writeBin(res$content, con = tmp)
  mp3 = tuneR::readMP3(tmp)
}

## End(Not run)
```

<code>print.token</code>	<i>Print method for token</i>
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Description

Print method for token

Usage

```
## S3 method for class 'token'  
print(x, reveal = FALSE, ...)  
  
reveal(x, ...)
```

Arguments

<code>x</code>	an object used to select a method.
<code>reveal</code>	Should the token be revealed
<code>...</code>	further arguments passed to or from other methods

Examples

```
x = "asdf"  
class(x) = "token"  
print(x)  
print(x, reveal = TRUE)
```

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