

FIG. 16

SpeexKit 1.0 Manual




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SpeexKitDemo1.0 Documentation

-  [yes](#)
-  [Modules](#)
-  [Class List](#)

AudioFileWrapperController Class Reference

Detailed Description

A class that converts buffers into complete audio files of either WAV or Speex/OGG.

Method Documentation

```
- (NSError *) writeWavFileFromMonoPCMDData: (NSData *)  data
                        withSampleRate: (int)           sampleRate
                        andBitsPerChannel: (int)         bitRate
                        toFileLocation: (NSString *) fileLocation
```

Writes out a WAV file from a buffer

```
- (NSError *) writeSpeexFileFromArrayOfSpeexDictionaries: (NSArray *)  speexArray
                        inSpeexMode: (NSString *)  speexMode
                        toFileLocation: (NSString *) fileLocation
```

Writes out a Speex file from an array of Speex dictionaries

SpeexFileDecodingController Class Reference

Detailed Description

A class that decodes complete speex audio files into complete WAV or raw audio files.

Method Documentation

```
- (void) decodeLocalSpeexFileAtPath: (NSString *) localSpeexFile
      intoLocalRawOrWavFileAtPath: (NSString *) decodedFile
```

This takes one entire spx file and converts it to a wav or raw file with a header.

Property Documentation

```
- (BOOL) verboseSpeexFileDecodingController
```

Set this TRUE in order to see error output

SpeexFileEncodingController Class Reference

Detailed Description

A class that encodes complete WAV or raw audio files into complete Speex files.

Method Documentation

- (void) encodeLocalRawOrWavFileAtPath: (NSString *) *localFile*
intoSpeexFileAtPath: (NSString *) *speexFile*

This takes one entire file and converts it to a spx with a header.

Property Documentation

- (NSString *) *mode*

options are "Narrowband", "Wideband" and "UltraWideband". For 8-bit use Narrowband, for 16-bit use Wideband, for more use UltraWideBand. This is necessary to set.

- (int) *quality*

options are 0-10, default is 8. Not necessary to set.

- (int) *bitrate*

The maximum bitrate to use. Not necessary to set.

- (BOOL) *variableBitrate*

Use VBR encoding. Optional.

- (int) *vbrBitrate*

maximum bitrate for vbr. Optional.

- (int) *averageBitRate*

If set to a number, enable average bitrate at the described rate, defaults to -1. Optional.

- (BOOL) *vad*

Use voice activity detection, defaults to NO, optional.

- (BOOL) *dtx*

File-based discontinuous transmission, defaults to NO, optional.

- (int) complexity

encoding complexity from 0-10, default is 3, not necessary to set.

- (BOOL) denoiseInput

If TRUE, denoise input first. Defaults to FALSE. Optional.

- (BOOL) useAGC

Turn on AGC. Optional.

- (BOOL) verbose

Verbose mode, reports used bitrates, defaults to FALSE, optional.

- (BOOL) verboseSpeexKit

Quiet mode, suppresses all output, defaults to FALSE, optional.

- (int) sampleRate

Sample rate for input, not necessary to set unless the encoder has some problem detecting this.

- (BOOL) inputIsStereo

Force input to be considered stereo, not necessary to set unless the encoder has some problem detecting this.

- (NSString *) endianness

Endianness of input, options are "LE" and "BE", not necessary to set unless the encoder has some problem detecting this. Unlikely to be needed for an iOS implementation.

- (int) inputBits

Defaults to -1 which lets the encoder decide. If set to 8, input is taken as 8-bit, if set to 16, input is taken as 16-bit. Not necessary to set unless the decoder has some problem detecting this.

- (BOOL) timeConversion

Set this to TRUE to get a timing for your conversion. Useful for discovering how to optimize your operation on the device using the different encoding options available.

SpeexNSDataDecodingController

Class Reference

Detailed Description

A class that decodes buffers of Speex into buffers of PCM.

Property Documentation

- (BOOL) verboseSpeexKit

Toggle verbosity to get logging output

SpeexNSDataEncodingController

Class Reference

Detailed Description

A class that encodes buffers of PCM into buffers of Speex.

Property Documentation

- (BOOL) denoise

Toggle the Speex denoise property

- (BOOL) dereverb

Toggle the Speex dereverb property

- (int) quality

options are 0-10, default is 8. Not necessary to set.

- (BOOL) variableBitrate

Toggle speex vbr option

- (int) vbrBitrate

maximum bitrate for vbr. Optional.

- (int) averageBitRate

If set to a number, enable average bitrate at the described rate, defaults to -1. Optional.

- (BOOL) vad

Use voice activity detection, defaults to NO, optional.

- (int) complexity

encoding complexity from 0-10, default is 3, not necessary to set.

- (int) vbrQuality

1-10 quality level for speex vbr if it is set to on

- (BOOL) verboseSpeexKit

Toggle verbosity for logging output

- (int) `sampleRate`

Sample rate for input, not necessary to set unless the encoder has some problem detecting this.

- (BOOL) `timeEncoding`

If set to true with logging on, time used to encode buffer will be output to logging

<SpeexNSDataDecodingControllerDelegate> Protocol Reference

Detailed Description

Delegate methods of [SpeexNSDataDecodingController](#) that deliver results to you asynchronously.

Method Documentation

- (void) asynchronousDecoderCreatedPCMDData: (NSData *) *pcmData*

Callback method that you can receive if you set a delegate for this class that informs you when a speex buffer has been decoded and delivers it

<SpeexNSDataEncodingControllerDelegate> Protocol Reference

Detailed Description

Delegate methods of [SpeexNSDataEncodingController](#) that deliver results to you asynchronously.

Method Documentation

- (void) asynchronousEncoderCreatedSpeexArray: (NSArray *) *speexArray*

Callback method that you can receive if you set a delegate for this class that informs you when a PCM buffer has been encoded and delivers it