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sf::SoundBufferRecorder Class Reference

[Audio module](http://docs.google.com/group__audio.htm)

Specialized [SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm) which stores the captured audio data into a sound buffer. [More...](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#details)

#include <[SoundBufferRecorder.hpp](http://docs.google.com/SoundBufferRecorder_8hpp_source.htm)>

Inheritance diagram for sf::SoundBufferRecorder:



| Public Member Functions | |
| --- | --- |
| const [SoundBuffer](http://docs.google.com/classsf_1_1SoundBuffer.htm) & | [getBuffer](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#a84fd636ad22f434bafe2a7c15a8e5107) () const |
|  | Get the sound buffer containing the captured audio data. |
|  | |
| void | [start](http://docs.google.com/classsf_1_1SoundRecorder.htm#a777e633114f7221cd7554a6ed486259e) (unsigned int sampleRate=44100) |
|  | Start the capture. |
|  | |
| void | [stop](http://docs.google.com/classsf_1_1SoundRecorder.htm#a8d9c8346aa9aa409cfed4a1101159c4c) () |
|  | Stop the capture. |
|  | |
| unsigned int | [getSampleRate](http://docs.google.com/classsf_1_1SoundRecorder.htm#a1f3726cbe0a2b2b291b36beea57960d7) () const |
|  | Get the sample rate. |
|  | |

| Static Public Member Functions | |
| --- | --- |
| static bool | [isAvailable](http://docs.google.com/classsf_1_1SoundRecorder.htm#aab2bd0fee9e48d6cfd449b1cb078ce5a) () |
|  | Check if the system supports audio capture. |
|  | |

| Protected Member Functions | |
| --- | --- |
| virtual bool | [onStart](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#a531a7445fc8a48eaf9fc039c83f17c6f) () |
|  | Start capturing audio data. |
|  | |
| virtual bool | [onProcessSamples](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#a9ceb94de14632ae8c1b78faf603b4767) (const Int16 \*samples, std::size\_t sampleCount) |
|  | Process a new chunk of recorded samples. |
|  | |
| virtual void | [onStop](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#ab8e53849312413431873a5869d509f1e) () |
|  | Stop capturing audio data. |
|  | |

## Detailed Description

Specialized [SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm) which stores the captured audio data into a sound buffer.

[sf::SoundBufferRecorder](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm) allows to access a recorded sound through a [sf::SoundBuffer](http://docs.google.com/classsf_1_1SoundBuffer.htm), so that it can be played, saved to a file, etc.

It has the same simple interface as its base class ([start()](http://docs.google.com/classsf_1_1SoundRecorder.htm#a777e633114f7221cd7554a6ed486259e), [stop()](http://docs.google.com/classsf_1_1SoundRecorder.htm#a8d9c8346aa9aa409cfed4a1101159c4c)) and adds a function to retrieve the recorded sound buffer ([getBuffer()](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#a84fd636ad22f434bafe2a7c15a8e5107)).

As usual, don't forget to call the [isAvailable()](http://docs.google.com/classsf_1_1SoundRecorder.htm#aab2bd0fee9e48d6cfd449b1cb078ce5a) function before using this class (see [sf::SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm) for more details about this).

Usage example:

if ([sf::SoundBufferRecorder::isAvailable](http://docs.google.com/classsf_1_1SoundRecorder.htm#aab2bd0fee9e48d6cfd449b1cb078ce5a)())

{

// Record some audio data

[sf::SoundBufferRecorder](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm) recorder;

recorder.[start](http://docs.google.com/classsf_1_1SoundRecorder.htm#a777e633114f7221cd7554a6ed486259e)();

...

recorder.[stop](http://docs.google.com/classsf_1_1SoundRecorder.htm#a8d9c8346aa9aa409cfed4a1101159c4c)();

// Get the buffer containing the captured audio data

const [sf::SoundBuffer](http://docs.google.com/classsf_1_1SoundBuffer.htm)& buffer = recorder.[getBuffer](http://docs.google.com/classsf_1_1SoundBufferRecorder.htm#a84fd636ad22f434bafe2a7c15a8e5107)();

// Save it to a file (for example...)

buffer.[saveToFile](http://docs.google.com/classsf_1_1SoundBuffer.htm#ab2083dc1a934c64959d9e3f162328a76)("my\_record.ogg");

}

See Also[sf::SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm)

Definition at line [44](http://docs.google.com/SoundBufferRecorder_8hpp_source.htm#l00044) of file [SoundBufferRecorder.hpp](http://docs.google.com/SoundBufferRecorder_8hpp_source.htm).

## Member Function Documentation

| const [SoundBuffer](http://docs.google.com/classsf_1_1SoundBuffer.htm)& sf::SoundBufferRecorder::getBuffer | ( |  | ) | const |
| --- | --- | --- | --- | --- |

Get the sound buffer containing the captured audio data.

The sound buffer is valid only after the capture has ended. This function provides a read-only access to the internal sound buffer, but it can be copied if you need to make any modification to it.

ReturnsRead-only access to the sound buffer

| | unsigned int sf::SoundRecorder::getSampleRate | ( |  | ) | const | | --- | --- | --- | --- | --- | | inherited |
| --- | --- | --- | --- | --- | --- | --- |

Get the sample rate.

The sample rate defines the number of audio samples captured per second. The higher, the better the quality (for example, 44100 samples/sec is CD quality).

ReturnsSample rate, in samples per second

| | static bool sf::SoundRecorder::isAvailable | ( |  | ) |  | | --- | --- | --- | --- | --- | | staticinherited |
| --- | --- | --- | --- | --- | --- | --- |

Check if the system supports audio capture.

This function should always be called before using the audio capture features. If it returns false, then any attempt to use [sf::SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm) or one of its derived classes will fail.

ReturnsTrue if audio capture is supported, false otherwise

| | virtual bool sf::SoundBufferRecorder::onProcessSamples | ( | const Int16 \* | *samples*, | | --- | --- | --- | --- | |  |  | std::size\_t | *sampleCount* | |  | ) |  |  | | protectedvirtual |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Process a new chunk of recorded samples.

Parameters

| samples | Pointer to the new chunk of recorded samples |
| --- | --- |
| sampleCount | Number of samples pointed by *samples* |

ReturnsTrue to continue the capture, or false to stop it

Implements [sf::SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm#a2670124cbe7a87c7e46b4840807f4fd7).

| | virtual bool sf::SoundBufferRecorder::onStart | ( |  | ) |  | | --- | --- | --- | --- | --- | | protectedvirtual |
| --- | --- | --- | --- | --- | --- | --- |

Start capturing audio data.

ReturnsTrue to start the capture, or false to abort it

Reimplemented from [sf::SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm#a7af418fb036201d3f85745bef78ce77f).

| | virtual void sf::SoundBufferRecorder::onStop | ( |  | ) |  | | --- | --- | --- | --- | --- | | protectedvirtual |
| --- | --- | --- | --- | --- | --- | --- |

Stop capturing audio data.

Reimplemented from [sf::SoundRecorder](http://docs.google.com/classsf_1_1SoundRecorder.htm#aefc36138ca1e96c658301280e4a31b64).

| | void sf::SoundRecorder::start | ( | unsigned int | *sampleRate* = 44100 | ) |  | | --- | --- | --- | --- | --- | --- | | inherited |
| --- | --- | --- | --- | --- | --- | --- | --- |

Start the capture.

The *sampleRate* parameter defines the number of audio samples captured per second. The higher, the better the quality (for example, 44100 samples/sec is CD quality). This function uses its own thread so that it doesn't block the rest of the program while the capture runs. Please note that only one capture can happen at the same time.

Parameters

| sampleRate | Desired capture rate, in number of samples per second |
| --- | --- |

See Also[stop](http://docs.google.com/classsf_1_1SoundRecorder.htm#a8d9c8346aa9aa409cfed4a1101159c4c)

| | void sf::SoundRecorder::stop | ( |  | ) |  | | --- | --- | --- | --- | --- | | inherited |
| --- | --- | --- | --- | --- | --- | --- |

Stop the capture.

See Also[start](http://docs.google.com/classsf_1_1SoundRecorder.htm#a777e633114f7221cd7554a6ed486259e)

The documentation for this class was generated from the following file:

* [SoundBufferRecorder.hpp](http://docs.google.com/SoundBufferRecorder_8hpp_source.htm)

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