SFML

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sf::Listener Class Reference

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

The audio listener is the point in the scene from where all the sounds are heard. [More...](http://docs.google.com/classsf_1_1Listener.htm#details)

#include <[Listener.hpp](http://docs.google.com/Listener_8hpp_source.htm)>

| Static Public Member Functions | |
| --- | --- |
| static void | [setGlobalVolume](http://docs.google.com/classsf_1_1Listener.htm#a803a24a1fc04620cacc9f88c6fbc0e3a) (float volume) |
|  | Change the global volume of all the sounds and musics. |
|  | |
| static float | [getGlobalVolume](http://docs.google.com/classsf_1_1Listener.htm#a137ea535799bdf70be6ec969673d4d33) () |
|  | Get the current value of the global volume. |
|  | |
| static void | [setPosition](http://docs.google.com/classsf_1_1Listener.htm#a5bc2d8d18ea2d8f339d23cbf17678564) (float x, float y, float z) |
|  | Set the position of the listener in the scene. |
|  | |
| static void | [setPosition](http://docs.google.com/classsf_1_1Listener.htm#a28a27d85cfbf8065c535c39176898fcb) (const [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) &position) |
|  | Set the position of the listener in the scene. |
|  | |
| static [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) | [getPosition](http://docs.google.com/classsf_1_1Listener.htm#acd7ee65bc948ca38e1c669aa12340c54) () |
|  | Get the current position of the listener in the scene. |
|  | |
| static void | [setDirection](http://docs.google.com/classsf_1_1Listener.htm#ae479dc15513c6557984d26e32d06d06e) (float x, float y, float z) |
|  | Set the orientation of the listener in the scene. |
|  | |
| static void | [setDirection](http://docs.google.com/classsf_1_1Listener.htm#a1d99d9457c6ddad93449ecb4f504c2bf) (const [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) &direction) |
|  | Set the orientation of the listener in the scene. |
|  | |
| static [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) | [getDirection](http://docs.google.com/classsf_1_1Listener.htm#a54e91baba51d4431474f53ff7f9309f9) () |
|  | Get the current orientation of the listener in the scene. |
|  | |

## Detailed Description

The audio listener is the point in the scene from where all the sounds are heard.

The audio listener defines the global properties of the audio environment, it defines where and how sounds and musics are heard.

If [sf::View](http://docs.google.com/classsf_1_1View.htm) is the eyes of the user, then [sf::Listener](http://docs.google.com/classsf_1_1Listener.htm) is his ears (by the way, they are often linked together – same position, orientation, etc.).

[sf::Listener](http://docs.google.com/classsf_1_1Listener.htm) is a simple interface, which allows to setup the listener in the 3D audio environment (position and direction), and to adjust the global volume.

Because the listener is unique in the scene, [sf::Listener](http://docs.google.com/classsf_1_1Listener.htm) only contains static functions and doesn't have to be instanciated.

Usage example:

// Move the listener to the position (1, 0, -5)

[sf::Listener::setPosition](http://docs.google.com/classsf_1_1Listener.htm#a5bc2d8d18ea2d8f339d23cbf17678564)(1, 0, -5);

// Make it face the right axis (1, 0, 0)

[sf::Listener::setDirection](http://docs.google.com/classsf_1_1Listener.htm#ae479dc15513c6557984d26e32d06d06e)(1, 0, 0);

// Reduce the global volume

[sf::Listener::setGlobalVolume](http://docs.google.com/classsf_1_1Listener.htm#a803a24a1fc04620cacc9f88c6fbc0e3a)(50);

Definition at line [42](http://docs.google.com/Listener_8hpp_source.htm#l00042) of file [Listener.hpp](http://docs.google.com/Listener_8hpp_source.htm).

## Member Function Documentation

| | static [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) sf::Listener::getDirection | ( |  | ) |  | | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- |

Get the current orientation of the listener in the scene.

Returns[Listener](http://docs.google.com/classsf_1_1Listener.htm)'s orientation See Also[setDirection](http://docs.google.com/classsf_1_1Listener.htm#ae479dc15513c6557984d26e32d06d06e)

| | static float sf::Listener::getGlobalVolume | ( |  | ) |  | | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- |

Get the current value of the global volume.

ReturnsCurrent global volume, in the range [0, 100] See Also[setGlobalVolume](http://docs.google.com/classsf_1_1Listener.htm#a803a24a1fc04620cacc9f88c6fbc0e3a)

| | static [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) sf::Listener::getPosition | ( |  | ) |  | | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- |

Get the current position of the listener in the scene.

Returns[Listener](http://docs.google.com/classsf_1_1Listener.htm)'s position See Also[setPosition](http://docs.google.com/classsf_1_1Listener.htm#a5bc2d8d18ea2d8f339d23cbf17678564)

| | static void sf::Listener::setDirection | ( | float | *x*, | | --- | --- | --- | --- | |  |  | float | *y*, | |  |  | float | *z* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Set the orientation of the listener in the scene.

The orientation defines the 3D axes of the listener (left, up, front) in the scene. The orientation vector doesn't have to be normalized. The default listener's orientation is (0, 0, -1).

Parameters

| x | X coordinate of the listener's orientation |
| --- | --- |
| y | Y coordinate of the listener's orientation |
| z | Z coordinate of the listener's orientation |

See Also[getDirection](http://docs.google.com/classsf_1_1Listener.htm#a54e91baba51d4431474f53ff7f9309f9), [setPosition](http://docs.google.com/classsf_1_1Listener.htm#a5bc2d8d18ea2d8f339d23cbf17678564)

| | static void sf::Listener::setDirection | ( | const [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) & | *direction* | ) |  | | --- | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- | --- |

Set the orientation of the listener in the scene.

The orientation defines the 3D axes of the listener (left, up, front) in the scene. The orientation vector doesn't have to be normalized. The default listener's orientation is (0, 0, -1).

Parameters

| direction | New listener's orientation |
| --- | --- |

See Also[getDirection](http://docs.google.com/classsf_1_1Listener.htm#a54e91baba51d4431474f53ff7f9309f9), [setPosition](http://docs.google.com/classsf_1_1Listener.htm#a5bc2d8d18ea2d8f339d23cbf17678564)

| | static void sf::Listener::setGlobalVolume | ( | float | *volume* | ) |  | | --- | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- | --- |

Change the global volume of all the sounds and musics.

The volume is a number between 0 and 100; it is combined with the individual volume of each sound / music. The default value for the volume is 100 (maximum).

Parameters

| volume | New global volume, in the range [0, 100] |
| --- | --- |

See Also[getGlobalVolume](http://docs.google.com/classsf_1_1Listener.htm#a137ea535799bdf70be6ec969673d4d33)

| | static void sf::Listener::setPosition | ( | float | *x*, | | --- | --- | --- | --- | |  |  | float | *y*, | |  |  | float | *z* | |  | ) |  |  | | static |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Set the position of the listener in the scene.

The default listener's position is (0, 0, 0).

Parameters

| x | X coordinate of the listener's position |
| --- | --- |
| y | Y coordinate of the listener's position |
| z | Z coordinate of the listener's position |

See Also[getPosition](http://docs.google.com/classsf_1_1Listener.htm#acd7ee65bc948ca38e1c669aa12340c54), [setDirection](http://docs.google.com/classsf_1_1Listener.htm#ae479dc15513c6557984d26e32d06d06e)

| | static void sf::Listener::setPosition | ( | const [Vector3f](http://docs.google.com/classsf_1_1Vector3.htm) & | *position* | ) |  | | --- | --- | --- | --- | --- | --- | | static |
| --- | --- | --- | --- | --- | --- | --- | --- |

Set the position of the listener in the scene.

The default listener's position is (0, 0, 0).

Parameters

| position | New listener's position |
| --- | --- |

See Also[getPosition](http://docs.google.com/classsf_1_1Listener.htm#acd7ee65bc948ca38e1c669aa12340c54), [setDirection](http://docs.google.com/classsf_1_1Listener.htm#ae479dc15513c6557984d26e32d06d06e)

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

* [Listener.hpp](http://docs.google.com/Listener_8hpp_source.htm)

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