MediaEngine Class

MediaEngine is the lowest libjingle wrapper class around the third-party package that controls the render/capture hardware on the computer. **MediaEngine** is a virtual class that must be subclassed to work with specific third party applications (such as Linphone and GIPS). libjingle defines two subclasses: **GipsLiteMediaEngine** to work with GIPS, and **LinphoneMediaEngine** to work with Linphone. **MediaEngine** handles audio settings and creation of **MediaChannels**. You can create your own subclass if you have another media engine to use. **MediaEngine** is specialized for audio data, but you could use it as a model to support other media types. The methods shown are not thread-safe, and can be called on any thread, but you should call them from the signaling thread.

MediaEngine is created by **ChannelManager** when that object is instantiated. There is only one **MediaEngine** instance per libjingle application. No destructor is defined for this base class.

Syntax

```
class MediaEngine
```

Methods

Name	Description
std::vector<Codec>& **codecs**() = 0	Retrieves a vector of **Codec** structs representing the codecs supported by the **MediaEngine**.
MediaChannel* **CreateChannel**() = 0	Creates a new **MediaChannel** subclass, representing the media stream for one session (peer-to-peer connection).
bool **FindCodec**(Codec &*codec*) = 0	Returns True if the submitted codec is supported by the underlying **MediaEngine** subclass. *codec* is the name of the codec to search for.
int **GetCodecPreference**(Codec *codec*)	Returns an integer preference for a codec, where the higher the number is, the higher the preference.
virtual int **GetInputLevel**() = 0	Returns a volume level, specific to the implementation.
virtual bool **Init**() = 0	Initializes the media library and populates the engine's list of supported codecs. This is called by **ChannelManager** when **ChannelManager** is instantiated.
MediaEngine()	Constructor. It performs no actions, and should be overridden by subclasses.
virtual **SetAudioOptions**(int *options*) = 0	Sets audio options found in the **MediaEngineOptions** enumeration. This isn't used by libjingle, but can be used by your application. *options* should be a MediaEngineOptions enumerated value described in the table below.
virtual int **SetSoundDevices**(int *wave_in_device*, int *wave_out_device*) = 0	Sets the sound hardware to use. This is specific to the implementation. • *wave_in_device* Pointer to an audio capture device. • *wave_out_device* Pointer to an audio rendering device.

virtual int **Terminate**()=0	Performs the opposite actions to **Init**, and releases resources used by **MediaEngine**. This is called by **ChannelManager** before destroying a **MediaChannel** object.

Enumerations

Name	Description
MediaEngineOptions	Used by **SetAudioOptions** to specify various audio options. The following values are specified: • AUTO_GAIN_CONTROL Enable auto gain control.

Attributes: public

Declaration file: libjingle-0.3.0/talk/session/phone/mediaengine.h

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