



# ChannelManager Class

Creates and destroys a **VoiceChannel** object, and provides access to the **MediaEngine** object. **PhoneSessionClient** calls this object to get a list of codecs when it prepares a session request or responds to a connection request. **Call** uses this object to create and destroy **VoiceChannels** when **Session** objects are created and destroyed, and stores a map of **Session/VoiceChannel** pairs. The methods shown are not thread-safe, and can be called on any thread.

One instance of **ChannelManager** is instantiated for the whole application; it is created by **PhoneSessionClient**.

## Syntax

```
class ChannelManager : public MessageHandler
```

## Methods

The following public methods are exposed by **ChannelManager**.

Name	Description
<b>ChannelManager</b> (Thread <i>*worker_thread</i> )	Constructor. Creates the <b>MediaEngine</b> subclass. <ul style="list-style-type: none"> <li><i>worker_thread</i> (required) A thread that is used to handle multithreaded operations, such as <b>DestroyVoiceChannel_w</b> and <b>SetAudioOptions_w</b>.</li> </ul>
<b>~ChannelManager</b>	Destructor. Destroys the voice channel.
VoiceChannel* <b>CreateVoiceChannel</b> (Session <i>*session</i> )	Called by <b>Call</b> to create a new <b>VoiceChannel</b> (and helper <b>MediaChannel</b> ) when it creates a <b>Session</b> object. Calls <b>CreateVoiceChannel_w</b> on the worker thread passed in to the constructor.
void <b>DestroyVoiceChannel</b> (VoiceChannel <i>*voice_channel</i> )	Deletes local references to the <b>VoiceChannel</b> objects and their <b>MediaChannel</b> objects. Calls <b>DestroyVoiceChannel_w</b> on a different thread.
MediaEngine* <b>media_engine</b> ()	Returns a handle to the <b>MediaEngine</b> object created and used by <b>ChannelManager</b> .
void <b>SetAudioOptions</b> (bool <i>auto_gain_control</i> , int <i>wave_in_device</i> , int <i>wave_out_device</i> )	Called by PhoneSessionClient to set various audio options for the chat. Calls <b>SetAudioOptions_w</b> on a different thread to perform this action. <ul style="list-style-type: none"> <li><i>auto_gain_control</i> Whether or not the engine should attempt to normalize the volume.</li> <li><i>wave_in_device</i> Pointer to an audio capture device.</li> <li><i>wave_out_device</i> Pointer to an audio rendering device.</li> </ul>
Thread* <b>worker_thread</b> ()	The thread passed in to the constructor, used to handle the multithreaded methods. This should be the worker thread used by the application.

## Structs

Name	Description
cricket::ChannelManager::AudioOptions	<p>Describes the audio options that the media engine uses. It has the following members:</p> <ul style="list-style-type: none"><li>• <i>auto_gain_control</i> Whether or not the engine should attempt to normalize the volume.</li><li>• <i>wave_in_device</i> Pointer to an audio capture device.</li><li>• <i>wave_out_device</i> Pointer to an audio rendering device.</li></ul>

**Attributes:** public

**Declaration file:** talk/session/phone/channelmanager.h

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