



AUDIO SERVICE

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INTRODUCTION

This documentation details the specific set of commands for audio devices. These, along with *common commands* conform the complete set of commands available for audio devices. Sometimes, certain *common commands* can be overwritten within a specific service, because they change their behavior. In the case of **Audio Service**, following commands are overwritten:

- [XPEAK_COMMAND_GET_CAPABILITIES](#)

All commands described here meet the *xpeak* specification [General Message Format](#)

COMMANDS

 **XPEAK_COMMAND_CREATE** (0x706014B)

Version: 0706

Description:

This command generates an audio on the fly from the text and language indicated.

 **Parameters:**

- **Unicode Text**
The text from which the audio will be generated.
- **Struct Voice**
Indicates the voice of the audio to generate. The voice is composed by the following fields, and should be one of the voices contained in the list of *SupportedVoices* capability from the [XPEAK_COMMAND_GET_CAPABILITIES](#) command.
- **String LanguageId**
The identifier of the language, according to the ISO-639 standard: *en* for English, *fr* for French, *es* for Spanish, etc.
- **String CountryId**
Optional field to identify the accent of the language in case the language is spoken in more than one country. If it is not indicated, the device will use a default country code for the required language. It should identify the country according to the ISO-3166 standard. Examples: *CA, US, FR*
- **int Gender**
Optional field to indicate the gender of the voice. If it is not indicated, the device will use a default gender. The possible values are:
 - XPEAK_GENDER_FEMALE (0x7060159)
 - XPEAK_GENDER_MALE (0x7060158)
- **int Age**
Optional field to indicate the approximate age of the voice. If it is not indicated, the device will use a default age. The possible values are:
 - XPEAK_AGE_CHILD (0x706015A)
 - XPEAK_AGE_TEENAGER (0x706015B)
 - XPEAK_AGE_YOUNGER_ADULT (0x706015C)
 - XPEAK_AGE_MIDDLE_ADULT (0x706015D)
 - XPEAK_AGE_OLDER_ADULT (0x706015E)
- **int Format**
Specifies the format of the audio to create. This format should be one from the list indicated in the *CreateFormats* capability from the [XPEAK_COMMAND_GET_CAPABILITIES](#) command. Possible values are:

- XPEAK_AUDIO_FORMAT_WAV (0x706014E)
- XPEAK_AUDIO_FORMAT_MP3 (0x706014F)
- XPEAK_AUDIO_FORMAT_OGG (0x7060150)
- XPEAK_AUDIO_FORMAT_GSM (0x7060151)
- XPEAK_AUDIO_FORMAT_DCT (0x7060152)
- XPEAK_AUDIO_FORMAT_FLAC (0x7060153)
- XPEAK_AUDIO_FORMAT_AU (0x7060154)
- XPEAK_AUDIO_FORMAT_AIFF (0x7060155)
- XPEAK_AUDIO_FORMAT_VOX (0x7060156)
- XPEAK_AUDIO_FORMAT_RAW (0x7060157)

 **Result:**

- **Base64 Data**
The resulting audio data.

 **XPEAK_COMMAND_DELETE_AUDIOS** (0x7060149)

Version: 0706

Description:

This command deletes all the audios previously loaded by the [XPEAK_COMMAND_LOAD_AUDIO](#) command

 **Result:**

See Common Results

XPEAK_COMMAND_GET_AUDIOS_LOADED (0x706014A)

Version: 0706

Description:

It returns the list of the audios that have been previously loaded by the application with the command [XPEAK_COMMAND_LOAD_AUDIO](#)

Result:

- **Struct[] Audios**

The list of audios loaded in the device. The fields of each audio are described below:

- **String Name**

Name of the audio.

- **int Format**

Audio format. Possible values are:

- XPEAK_AUDIO_FORMAT_WAV (0x706014E)
- XPEAK_AUDIO_FORMAT_MP3 (0x706014F)
- XPEAK_AUDIO_FORMAT_OGG (0x7060150)
- XPEAK_AUDIO_FORMAT_GSM (0x7060151)
- XPEAK_AUDIO_FORMAT_DCT (0x7060152)
- XPEAK_AUDIO_FORMAT_FLAC (0x7060153)
- XPEAK_AUDIO_FORMAT_AU (0x7060154)
- XPEAK_AUDIO_FORMAT_AIFF (0x7060155)
- XPEAK_AUDIO_FORMAT_VOX (0x7060156)
- XPEAK_AUDIO_FORMAT_RAW (0x7060157)

- **long Timestamp**

Same timestamp as the one indicated in the parameter when the audio was loaded.

 **XPEAK_COMMAND_GET_CAPABILITIES** (0x7060017)

Version: 0706

Description:

It returns the device capabilities. The application should consider these capabilities and adapt its behavior to the device characteristics.

 **Result:**

- **boolean CanSetVolume**
Indicates if the device can adjust the volume, calling the command [XPEAK_COMMAND_SET_VOLUME](#)
- **boolean CanGetVolume**
Indicates if the device can get the volume value, calling the command [XPEAK_COMMAND_GET_VOLUME](#)
- **boolean CanSendEndOfMediaEvent**
Indicates if the device can send the event *END_OF_MEDIA* thrown in [XPEAK_COMMAND_PLAY](#) and [XPEAK_COMMAND_SPEAK](#) commands.
- **int[] PlayFormats**
If the device can play audios, this capability returns the list of the supported audio formats, otherwise the array will be empty.

The possible values are:

- XPEAK_AUDIO_FORMAT_WAV (0x706014E)
- XPEAK_AUDIO_FORMAT_MP3 (0x706014F)
- XPEAK_AUDIO_FORMAT_OGG (0x7060150)
- XPEAK_AUDIO_FORMAT_GSM (0x7060151)
- XPEAK_AUDIO_FORMAT_DCT (0x7060152)
- XPEAK_AUDIO_FORMAT_FLAC (0x7060153)
- XPEAK_AUDIO_FORMAT_AU (0x7060154)
- XPEAK_AUDIO_FORMAT_AIFF (0x7060155)
- XPEAK_AUDIO_FORMAT_VOX (0x7060156)
- XPEAK_AUDIO_FORMAT_RAW (0x7060157)

These are the possible values in the [XPEAK_COMMAND_PLAY](#) command

- **int[] CreateFormats**
If the device can create audios on the fly, this capability will return the list of the supported audio formats, otherwise the array will be empty.

The possible values are:

- XPEAK_AUDIO_FORMAT_WAV (0x706014E)
- XPEAK_AUDIO_FORMAT_MP3 (0x706014F)
- XPEAK_AUDIO_FORMAT_OGG (0x7060150)
- XPEAK_AUDIO_FORMAT_GSM (0x7060151)
- XPEAK_AUDIO_FORMAT_DCT (0x7060152)
- XPEAK_AUDIO_FORMAT_FLAC (0x7060153)
- XPEAK_AUDIO_FORMAT_AU (0x7060154)
- XPEAK_AUDIO_FORMAT_AIFF (0x7060155)
- XPEAK_AUDIO_FORMAT_VOX (0x7060156)
- XPEAK_AUDIO_FORMAT_RAW (0x7060157)

These are the possible values in the [XPEAK_COMMAND_CREATE](#) command

- **Struct[] SupportedVoices**

Contains the list of supported voices in case the device can speak. Each voice will be defined by several fields indicating the language, gender and age. If the device can not speak, this array will be empty.

In the commands [XPEAK_COMMAND_SPEAK](#) and [XPEAK_COMMAND_CREATE](#), the parameter *voice* should be one of the elements of this array.

- **String LanguageId**

The identifier of the language, according to the ISO-639 standard: *en* for English, *fr* for French, *es* for Spanish, etc.

- **String CountryId**

This field is optional and is used to identify the accent of the language in case the language is spoken in more than one country. It should identify the country according to the ISO-3166 standard. Examples: *CA*, *US*, *FR*

- **int Gender**

Indicates the gender of the voice. The possible values are:

- XPEAK_GENDER_FEMALE (0x7060159)
- XPEAK_GENDER_MALE (0x7060158)

- **int Age**

Indicates the approximate age of the voice. The possible values are:

- XPEAK_AGE_CHILD (0x706015A)
- XPEAK_AGE_TEENAGER (0x706015B)
- XPEAK_AGE_YOUNGER_ADULT (0x706015C)
- XPEAK_AGE_MIDDLE_ADULT (0x706015D)
- XPEAK_AGE_OLDER_ADULT (0x706015E)

 **XPEAK_COMMAND_GET_VOLUME** (0x706014D)

Version: 0706

Description:

Gets the current volume of the device. This command can only be executed if the capability *CanGetVolume* of the command [XPEAK_COMMAND_GET_CAPABILITIES](#) is *yes*.

 **Result:**

- **int Value**
The current volume of the device.

 **XPEAK_COMMAND_LOAD_AUDIO** (0x7060148)

Version: 0706

Description:

This command can be used to load an audio into the device to be played later.

 **Parameters:**

- **String Name**
Indicates the name of the audio that will be used later to play by the [XPEAK_COMMAND_PLAY](#) command. If there is already an audio with the same name, it will be overwritten.
- **int Format**
Specifies the format of the audio contained in the *value* field. This format should be one from the list indicated in the *PlayFormats* capability. Possible values are:
 - XPEAK_AUDIO_FORMAT_WAV (0x706014E)
 - XPEAK_AUDIO_FORMAT_MP3 (0x706014F)
 - XPEAK_AUDIO_FORMAT_OGG (0x7060150)
 - XPEAK_AUDIO_FORMAT_GSM (0x7060151)
 - XPEAK_AUDIO_FORMAT_DCT (0x7060152)
 - XPEAK_AUDIO_FORMAT_FLAC (0x7060153)
 - XPEAK_AUDIO_FORMAT_AU (0x7060154)
 - XPEAK_AUDIO_FORMAT_AIFF (0x7060155)
 - XPEAK_AUDIO_FORMAT_VOX (0x7060156)
 - XPEAK_AUDIO_FORMAT_RAW (0x7060157)
- **long Timestamp**
For the application to decide whether to reload an audio or not, this field is used to save the timestamp of the last load. This field will be returned by the [XPEAK_COMMAND_GET_AUDIOS_LOADED](#) command.

It is recommended that the value of this field represents the milliseconds since the 1st of January of 1970, 00:00 GMT.
- **Base64 Value**
This field contains the audio data, according to the specified format on the *Format* field.

 **Result:**

- **int Result**
Apart from the common values, this command can return the following results:

Result	Description
XPEAK_RESULT_NOT_ENOUGH_SPACE (0x7060099)	There is not space enough in the device to save the audio

 **XPEAK_COMMAND_PLAY** (0x7060146)

Version: 0706

Description:

This command plays an audio. The audio should be previously loaded by the command [XPEAK_COMMAND_LOAD_AUDIO](#).

 **Parameters:**

- **String Name**
Indicates the name of the audio previously loaded in the device.

 **Result:**

See Common Results

 **Events:**

XPEAK_RESULT_END_OF_MEDIA (0x7060160) Since 0706

This event is thrown when the audio has been played completely and only if the property *CanSendEndOfMediaEvent* is equals *yes*

 **XPEAK_COMMAND_SET_VOLUME** (0x706014C)

Version: 0706

Description:

Sets the volume of the device. This command can only be executed if the value of the capability *CanSetVolume* is *yes*.

 **Parameters:**

- **int Value**
The volume value to set. It will be a value between *0* and *10*. *0* will indicate no sound at all and *10* is the maximum volume.

 **Result:**

See Common Results

 **XPEAK_COMMAND_SPEAK** (0x7060147)

Version: 0706

Description:

Speaks the indicated text using the language specified as parameter.

 **Parameters:**

- **Unicode Text**
The text to speak.
- **Struct Voice**
Indicates the voice with which the audio will be spoken. The voice is composed by the following fields, and should be one of the voices contained in the list of *SupportedVoices* capability from the [XPEAK_COMMAND_GET_CAPABILITIES](#) command.
- **String LanguageId**
The identifier of the language, according to the ISO-639 standard: *en* for English, *fr* for French, *es* for Spanish, etc.
- **String CountryId**
Optional field to identify the accent of the language in case the language is spoken in more than one country. If it is not indicated, the device will use a default country code for the required language. It should identify the country according to the ISO-3166 standard. Examples: *CA*, *US*, *FR*
- **int Gender**
Optional field to indicate the gender of the voice. If it is not indicated, the device will use a default gender. The possible values are:
 - XPEAK_GENDER_FEMALE (0x7060159)
 - XPEAK_GENDER_MALE (0x7060158)
- **int Age**
Optional field to indicate the approximate age of the voice. If it is not indicated, the device will use a default age. The possible values are:
 - XPEAK_AGE_CHILD (0x706015A)
 - XPEAK_AGE_TEENAGER (0x706015B)
 - XPEAK_AGE_YOUNGER_ADULT (0x706015C)
 - XPEAK_AGE_MIDDLE_ADULT (0x706015D)
 - XPEAK_AGE_OLDER_ADULT (0x706015E)

 **Result:**

See Common Results

 **Events:**

XPEAK_RESULT_END_OF_MEDIA (0x7060160) Since 0706

This event is thrown when the text has been spoken completely and only if the property *CanSendEndOfMediaEvent* is equals *yes*

 **XPEAK_COMMAND_STOP** (0x706015F)

Version: 0706

Description:

Stops the last [XPEAK_COMMAND_PLAY](#) and/or [XPEAK_COMMAND_SPEAK](#) command.

The event *END_OF_MEDIA* thrown in [XPEAK_COMMAND_PLAY](#) and [XPEAK_COMMAND_SPEAK](#) commands will be canceled.

 **Result:**

See Common Results