

# orxSOUND structure

## Summary

```
[SoundTemplate]
Sound      = path/to/SoundFile
Music      = path/to/MusicFile
Bus        = <string>
Attenuation = <float>
Loop       = <bool>
KeepInCache = <bool>
Pitch      = <float>
RefDistance = <float>
Volume     = <float>
```

## Details

Here's a list of the available properties for an orxSOUND structure:

- **Sound:** Specifies which sound file to use. The whole file will be loaded in memory before being played. This should be used for short sounds only (not for buffered streamed musics).
- **Music:** If no Sound is specified, this will be used as a path to a music file. Music differs from sounds mainly in the fact they're streamed from disk and buffered in memory at runtime to prevent having big files completely loaded in memory.
- **Bus:** Assign the sound/music to a named bus. If this is not specified, the default Master bus will be used.
- **Attenuation:** Specifies the attenuation value for spatialized sounds. It accepts a value between 0.0 and 1.0, default being 1.0.
- **Loop:** Specifies if the sound should be played in loop. Its default value is `false`.
- **KeepInCache:** Specifies if the sound data (ie. the sample itself) should be kept in memory even when no sound of this type is used. This gives better performances (no disk access) but costs memory. Its default value is `false`.
- **Pitch:** Defines a pitch value for the playing sound (ie. a relative frequency). Its default value is 1.0 which means the sound will be played at the same frequency it was recorded.
- **RefDistance:** Distance below which the sound's maximum volume will be perceived, for spatialized sounds only. Its default value is 1.0 (in meters).
- **Volume:** Specifies the relative volume to be used when playing the sound. It accepts a value between 0.0 and 1.0, default being 1.0.

**NB: If you want to use spatialized sounds, they need to be recorded with a mono channel. Stereo sounds won't be spatialized.**

## Latest config settings for the Development Version

We endeavor to keep the config properties on this page up to date as often as possible. For up to the minute config information for the latest version of Orx, check the most recent published at:

Last update: 2025/09/30 17:26 (9 months ago) en:orx:config:settings\_structure:orxsound [https://orx-project.org/wiki/en/orx/config/settings\\_structure/orxsound?rev=1512623970](https://orx-project.org/wiki/en/orx/config/settings_structure/orxsound?rev=1512623970)

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[CreationTemplate.ini](#) and

[SettingsTemplate.ini](#)

Additionally these files can be found under your orx source tree in the `orx/code/bin` folder.

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