

SoundManager

Purpose

Centralized audio controller for SFX, music, and ambient sounds. Uses separate `AudioSources` and `AudioClipLibrarySO` references for each audio type.

Setup

- Singleton pattern: accessible via `SoundManager.soundInstance`.
- Attach to a persistent GameObject in the scene.
- Assign 3 AudioSources and 3 `AudioClipLibrarySO` references (SFX, music, ambient) in the Inspector.

Core Functions

Play Clip by Name

```
public void PlaySFX(string name)
```

- Fetches clip from `sfxLibrary` and plays it.
- Similar functions exist for `PlayMusic` and `PlayAmbience`, using their respective sources and libraries.

Stop & Enable All Audio

```
public void StopAllSound()  
public void EnableAllSound()
```

- Enables or disables all three audio sources.

Volume Controls

```
public void SetSFXVolume(float value)
// ... also for Music and Ambient
```

- Adjusts individual audio source volumes.

Usage

Example:

```
SoundManager.soundInstance.PlaySFX("Click");
SoundManager.soundInstance.SetMusicVolume(0.5f);
```

Notes

- If a clip name isn't found, a warning is logged.
 - `PlayOneShot` is used for SFX to allow overlapping sounds.
 - Extendable for audio fade, mute, or pause logic if needed.
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AudioClipLibrarySO

Purpose

Stores a named list of `AudioClips` for use in audio systems like `SoundManager`. Allows efficient runtime lookup by name.

Structure

- `List<Clip>` is filled manually in the Inspector (each with a name + clip).
- Internally builds a `Dictionary<string, AudioClip>` in `OnEnable()` for fast access.

Clip Access

```
public AudioClip GetClip(string name)
```

- Returns the clip matching the name.
- Returns `null` if not found.
- Rebuilds the dictionary if needed.

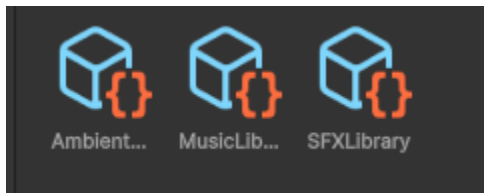
Usage Example

```
var clip = myLibrarySO.GetClip("Explosion");
```

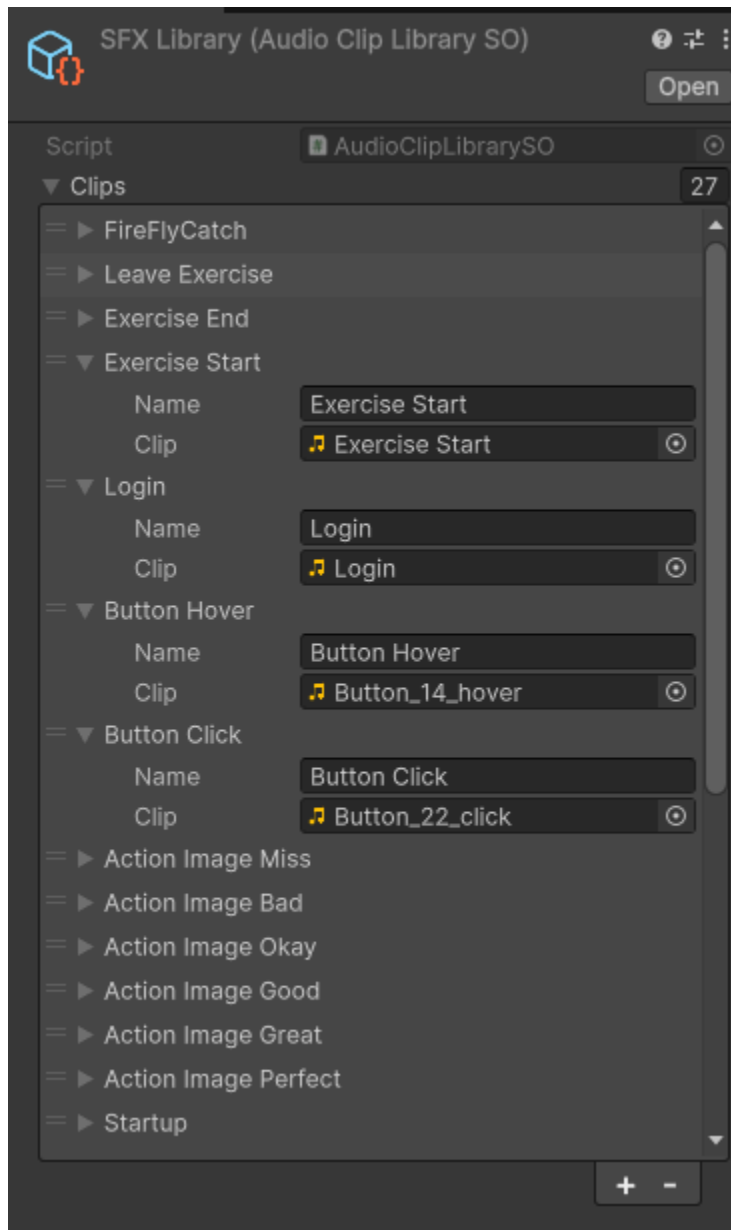
Notes

- Create separate instances per category (SFX, music, ambient).
- Duplicate names in the list are ignored during dictionary setup.

- ScriptableObject is created via:
`Assets > Create > Audio > Clip Library`



Audio library SO



Scriptable object for each sound library



Assigned references for the Sound Manager