Screamserver Library Reference

PlayStation®Vita Programmer Tool Runtime Library Release 3.50

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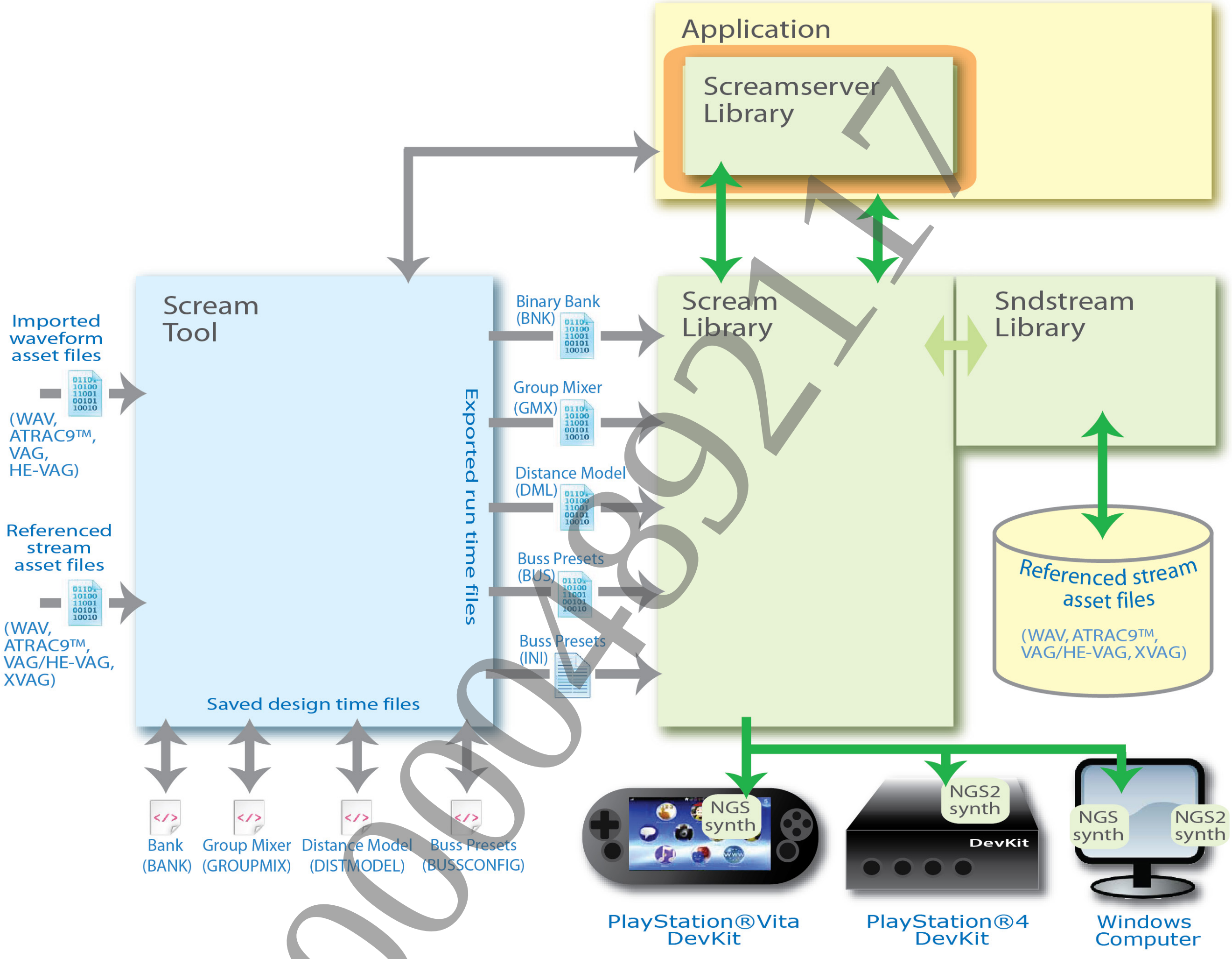
Introduction

Introduction

By creating a special test build of a game that includes the Screamserver library, audio designers are enabled to perform in-game editing while live-connected to the game from Scream Tool. This allows audio designers to interactively adjust Sound properties, test Sound scripts with gameplay, and mix game audio elements. See “In-Game Editing” in the *Scream Tool Help* for further details.

Figure 1 depicts topology of the Scream audio system, with Screamserver outlined in orange.

Figure 1 Scream Audio System Topology



Screamserver communicates with Scream Tool over a socket connection. When a Bank is loaded in a game, Screamserver sends the Bank’s signature to Scream Tool, which includes the Bank ID and the details of all Grains included in the Bank. Scream Tool then uses the signature to match the binary Bank that is loaded in the game to a Bank that is open in the Scream Tool. Changes made to the Bank in Scream Tool are then sent to the Screamserver, which updates the game’s binary Bank data.

Note: Although Screamserver is economical with system resources, including it in test or release builds is not recommended. You can use `#ifdef` constructs to include these function calls only in special builds to be delivered to audio designers.

Functions

Summary

The functions allow initialize, query, load and unload binary Banks, and stop Screamserver.

Function	Description
sceScreamInitScreamServerLib	Initializes Screamserver in a game.
sceScreamShutdownScreamServerLib	Shuts down Screamserver in a game.
sceScreamIsServerConnected	Determines whether Screamserver is connected to Scream Tool.
sceScreamGetServerIPAddressString	Retrieves the IP address being used by Screamserver.
sceScreamBankLoaded	Synchronizes Scream Tool with Screamserver following a binary Bank load operation.
sceScreamBankUnloaded	Synchronizes Scream Tool and Screamserver following a binary Bank unload operation.

sceScreamInitScreamServerLib

Initializes Screamserver in a game.

Definition

```
int32_t sceScreamInitScreamServerLib();
```

Arguments

None

Return Values

Returns `SCE_SCREAM_SCREAMSERVER_ERROR_OK` if Screamserver was successfully initialized. Otherwise, returns `SCE_SCREAM_SCREAMSERVER_ERROR_INIT_FAILURE`.

Description

This function initializes Screamserver in a running instance of a game. Call this function when your game initializes, after you have initialized the Scream runtime with call to `sceScreamStartSoundSystemEx2()`.

See Also

`sceScreamShutdownScreamServerLib()`

sceScreamShutdownScreamServerLib

Shuts down Screamserver in a game.

Definition

```
int32_t sceScreamShutdownScreamServerLib();
```

Arguments

None

Return Values

Returns SCE_SCREAM_SCREAMSERVER_ERROR_OK if the server was in an initialized state, otherwise returns SCE_SCREAM_SCREAMSERVER_ERROR_NOT_INITIALIZED.

Description

This function shuts down Screamserver in a running instance of a game. Call this function when your game terminates to clean up resources after a call to sceScreamStopSoundSystem().

See Also

sceScreamInitScreamServerLib()

sceScreamIsServerConnected

Determines whether Screamserver is connected to Scream Tool.

Definition

```
bool sceScreamIsServerConnected();
```

Arguments

None

Return Values

Returns `TRUE` if Screamserver is connected to Scream Tool; returns `FALSE` if not.

Description

This function determines whether Screamserver is connected to Scream Tool.

See Also

`sceScreamGetServerIPAddressString()`

sceScreamGetServerIPAddressString

Retrieves the IP address being used by Screamserver.

Definition

```
const char *sceScreamGetServerIPAddressString();
```

Arguments

None

Return Values

Returns the Screamserver IP address.

Description

This function retrieves the IP address being used by Screamserver. Scream Tool requires the IP address used by Screamserver to make a connection.

See Also

sceScreamIsServerConnected()

sceScreamBankLoaded

Synchronizes Scream Tool with Screamserver following a binary Bank load operation.

Definition

```
int32_t sceScreamBankLoaded(
          SceScreamSFXBlock2 *bank
);
```

Arguments

bank	Handle of the Bank that was loaded; as returned by the Scream `sceScreamBankLoadEx()` or `sceScreamBankLoadFromMemEx()` functions.

Return Values

Value	Description
SCE_SCREAM_SCREAMSERVER_ERROR_OK	Operation was successful.
SCE_SCREAM_SCREAMSERVER_ERROR_NOT_INITIALIZED	Server not initialized.
SCE_SCREAM_SCREAMSERVER_ERROR_INVALID_BANK	Invalid Bank pointer.

Description

This function synchronizes Scream Tool with Screamserver following a binary Bank load operation. Call this function immediately after a binary Bank is loaded by your game (that is, after a call to `sceScreamBankLoadEx()` or `sceScreamBankLoadFromMemEx()`).

See Also

`sceScreamBankUnloaded()`

sceScreamBankUnloaded

Synchronizes Scream Tool and Screamserver following a binary Bank unload operation.

Definition

```
int32_t sceScreamBankUnloaded(
        SceScreamSFXBlock2 *bank
);
```

Arguments

bank	Handle of the Bank that was unloaded; as returned by the Scream `sceScreamBankLoadEx()` or `sceScreamBankLoadFromMemEx()` functions.

Return Values

Value	Description
SCE_SCREAM_SCREAMSERVER_ERROR_OK	Operation was successful.
SCE_SCREAM_SCREAMSERVER_ERROR_NOT_INITIALIZED	Server not initialized.
SCE_SCREAM_SCREAMSERVER_ERROR_INVALID_BANK	Invalid Bank pointer.

Description

This function synchronizes Scream Tool and Screamserver following a binary Bank unload operation. Call this function immediately before a binary Bank is unloaded by your game (that is, before a call to `sceScreamUnloadBank()`).

See Also

`sceScreamBankLoaded()`

Error Codes

Error Code Macros

Macros used to create Scream error codes.

Define	Value	Description
SCE_ERROR_ERROR_FLAG	0x80000000	SDK base error code identifier.
SCE_ERROR_MAKE_ERROR	(SCE_ERROR_ERROR_FLAG|((_fac)<<16)|(_sts))	Macro to create an error code.
SCE_ERROR_FACILITY_SCREAM	0x100	Scream facility code identifier.
SCE_SCREAM_MAKE_ERROR	SCE_ERROR_MAKE_ERROR (SCE_ERROR_FACILITY_SCREAM,(_rc))	Helper macro to create Scream-specific error code values. The SCE_SCREAM_MAKE_ERROR macro bit-combines SCE_ERROR_ERROR_FLAG and SCE_ERROR_FACILITY_SCREAM with a Scream-specific error value. For example, SCE_SCREAM_MAKE_ERROR (0x101) evaluates to 0x81000101.

Error Codes

General error codes.

Define	Value	Description
SCE_SCREAM_SCREAMSERVER_ERROR_OK	(0)	No error occurred.
SCE_SCREAM_SCREAMSERVER_ERROR_INIT_FAILURE	SCE_SCREAM_MAKE_ERROR(0x501)	Server failed to initialize.
SCE_SCREAM_SCREAMSERVER_ERROR_INVALID_BANK	SCE_SCREAM_MAKE_ERROR(0x502)	Invalid Bank pointer error.
SCE_SCREAM_SCREAMSERVER_ERROR_NOT_INITIALIZED	SCE_SCREAM_MAKE_ERROR(0x503)	Operation requested before server initialization.