NP BandwidthTest Library Reference

PlayStation®Vita Programmer Tool Runtime Library Release 3.50

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Constants

SCE_NP_BANDWIDTH_TEST_THREAD_STACK_SIZE

Stack size of the internal thread

Definition

```
#define SCE_NP_BANDWIDTH_TEST_THREAD_STACK_SIZE (32 * 1024)
```

Description

Stack size of the internal thread created with `sceNpBandwidthTestInitStart()`.

See Also

`sceNpBandwidthTestInitStart()`

SCE_NP_BANDWIDTH_TEST_LEAST_HTTP_POOL_SIZE

libhttp memory pool size necessary for bandwidth measurement

Definition

```
#define SCE_NP_BANDWIDTH_TEST_LEAST_HTTP_POOL_SIZE (16 * 1024)
```

Description

This is the libhttp memory pool size necessary when starting bandwidth measurement.
It is checked when starting bandwidth measurement with `sceNpBandwidthTestInitStart()`.

See Also

`sceNpBandwidthTestInitStart()`

Datatypes

SceNpBandwidthTestResult

Results of bandwidth measurement

Definition

```
#include <np.h>
typedef struct SceNpBandwidthTestResult {
        double uploadBps;
        double downloadBps;
        int result;
        char padding[4];
} SceNpBandwidthTestResult;
```

Members

uploadBps	Upload rate (bit per second)
downloadBps	Download rate (bit per second)
result	Measurement result code (0: normal termination)
padding	Unused

Description

This structure represents the results of bandwidth measurement retrieved with `sceNpBandwidthTestShutdown()`.

If measurement terminates normally, 0 will be set in *result*. If any error occurs during measurement, an error code representing the cause of the error will be set.

The results of bandwidth measurement will be set in *uploadBps* and *downloadBps*.

See Also

`sceNpBandwidthTestShutdown()`

Bandwidth Measurement

sceNpBandwidthTestInitStart

Start bandwidth measurement

Definition

```
#include <np.h>
int sceNpBandwidthTestInitStart(
        SceInt32 initPriority,
        SceInt32 cpuAffinityMask
);
```

Arguments

initPriority	Priority of the internal thread
cpuAffinityMask	CPU affinity mask of the internal thread

Return Values

Returns 0 upon normal termination.

Returns a negative value for an error. The main error codes are shown below. (The application must not malfunction even if other error codes are returned.)

Macro	Hexadecimal	Description
SCE_NP_BANDWIDTH_TEST_ERROR_ALREADY_INITIALIZED	0x80551f01	It is possible that `sceNpBandwidthTestInitStart()` has already been called, or that `sceNpBandwidthTestInitStart()` has been called again without calling `sceNpBandwidthTestShutdown()`. Verify calling order.
SCE_NP_BANDWIDTH_TEST_ERROR_HTTP_POOL_TOO_SHORT	0x80551f04	libhttp memory pool available space is not sufficient.

Description

This function starts bandwidth measurement.

When calling is successful, an internal thread is generated based on the specified *initPriority* and *cpuAffinityMask*, starting bandwidth measurement; this function itself will return without blocking.

The stack size of the internal thread is `SCE_NP_BANDWIDTH_TEST_THREAD_STACK_SIZE` (32 KiB).

See Also

`sceNpBandwidthTestGetStatus()`, `sceNpBandwidthTestShutdown()`, `sceNpBandwidthTestAbort()`

sceNpBandwidthTestGetStatus

Retrieve the progress of bandwidth measurement

Definition

```
#include <np.h>
int sceNpBandwidthTestGetStatus(
        void
);
```

Arguments

None

Return Values

Returns one of the following values representing the progress of bandwidth measurement for normal termination.

Macro	Value	Description
SCE_NP_BANDWIDTH_TEST_STATUS_NONE	0	Inactive
SCE_NP_BANDWIDTH_TEST_STATUS_RUNNING	1	Measuring
SCE_NP_BANDWIDTH_TEST_STATUS_FINISHED	2	Measuring complete

Returns a negative value for an error. The main error codes are shown below. (The application must not malfunction even if other error codes are returned.)

Macro	Hexadecimal	Description
SCE_NP_BANDWIDTH_TEST_ERROR_NOT_INITIALIZED	0x80551f02	It is possible that sceNpBandwidthTestInitStart() has not been called, or that sceNpBandwidthTestShutdown() has been called. Verify calling order.

Description

Retrieves the progress of the bandwidth measurement started with sceNpBandwidthTestInitStart().

See Also

sceNpBandwidthTestInitStart(), sceNpBandwidthTestShutdown()

sceNpBandwidthTestShutdown

Termination of bandwidth measurement and result retrieval

Definition

```
#include <np.h>
int sceNpBandwidthTestShutdown(
        SceNpBandwidthTestResult *result
);
```

Arguments

result Storage destination of bandwidth measurement results

Return Values

Returns 0 upon normal termination. Currently.

Returns a negative value for an error. The main error codes are shown below. (The application must not malfunction even if other error codes are returned.)

Macro	Hexadecimal	Description
SCE_NP_BANDWIDTH_TEST_ERROR_INVALID_ARGUMENT	0x80551f05	Argument *result* is invalid

Description

Simultaneously performs termination of bandwidth measurement and result retrieval.

Since the internal thread created with `sceNpBandwidthTestInitStart()` is deleted in this function, after `sceNpBandwidthTestInitStart()` is successful always call this function, including when processing is aborted with `sceNpBandwidthTestAbort()`.

See Also

`sceNpBandwidthTestInitStart()`

sceNpBandwidthTestAbort

Forced termination of bandwidth measurement

Definition

```
#include <np.h>
int sceNpBandwidthTestAbort(
        void
);
```

Arguments

None

Return Values

Returns 0 upon normal termination.

Returns a negative value for an error. The main error codes are shown below. (The application must not malfunction even if other error codes are returned.)

Macro	Hexadecimal	Description
`SCE_NP_BANDWIDTH_TEST_ERROR_NOT_INITIALIZED`	0x80551f02	It is possible that `sceNpBandwidthTestInitStart()` has not been called yet, or that `sceNpBandwidthTestShutdown()` has been called. Verify the calling order.

Description

Aborts bandwidth measurement.

Even if aborting by calling this function, always terminate by using `sceNpBandwidthTestShutdown()`.

See Also

`sceNpBandwidthTestInitStart(),sceNpBandwidthTestShutdown()`