Ad Hoc Matching Library Reference

PlayStation®Vita Programmer Tool Runtime Library Release 3.50

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Table of Contents

Structures

SceNetAdhocMatchingMember

Member list structure

Definition

```
#include <adhoc_matching.h>
typedef struct SceNetAdhocMatchingMember {
        struct SceNetInAddr addr;
} SceNetAdhocMatchingMember;
```

Members

addr IP address

Description

This structure represents a member list.

See Also

`sceNetAdhocMatchingGetMembers()`

Initialization/Termination Functions

sceNetAdhocMatchingInit

Initialize Ad hoc Matching library

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingInit(
        SceSize poolsize,
        void *poolptr
);
```

Calling Conditions

Not multithread safe

Arguments

poolsize Memory pool size for the library (bytes)
poolptr Memory pool for the library

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_ALREADY_INITIALIZED	0x80413112	Already initialized. sceNetAdhocMatchingInit() may have already been called. Check the calling order.

Description

This function initializes the Ad hoc Matching library.

This function uses the memory specified in *poolsize* and *poolptr* as internal memory. This area is used by the library for all internal memory use.

See Also

sceNetAdhocMatchingTerm()

sceNetAdhocMatchingTerm

Terminate Ad hoc Matching library

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingTerm(
        void
);
```

Calling Conditions

Not multithread safe

Arguments

None

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_BUSY	0x80413111	The library is in execution. The library cannot be terminated during execution. Interrupt library processing by executing sceNetAdhocMatchingStop() or sceNetAdhocMatchingDelete().

Description

This function terminates the Ad hoc Matching library.

Delete all contexts before calling this function.

See Also

sceNetAdhocMatchingInit(),sceNetAdhocMatchingStop(),
sceNetAdhocMatchingDelete()

Matching Operation Functions

sceNetAdhocMatchingCreate

Create matching context

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingCreate(
        int mode,
        int maxnum,
        SceUShort16 port,
        int rxbuflen,
        unsigned int helloInterval,
        unsigned int keepaliveInterval,
        int initCount,
        unsigned int rexmtInterval,
        SceNetAdhocMatchingHandler handler
);
```

Calling Conditions

Multithread safe.

Arguments

mode	Operating mode
maxnum	Maximum number of matching group members
port	Port number
rxbuflen	Receive buffer size
helloInterval	Hello message interval (microseconds)
keepaliveInterval	KeepAliveRequest message interval (microseconds)
initCount	Initial value of Resend counter and KeepAlive counter
rexmtInterval	Message resend interval (microseconds)
handler	Event handler function

Return Values

Context ID of 0 or greater is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_MAXNUM	0x80413103	Invalid *maxnum* value. Check the *maxnum* value. A value smaller than 2 or greater than SCE_NET_ADHOC_MATCHING_MAXNUM(16) is specified.
SCE_NET_ADHOC_MATCHING_ERROR_RXBUF_TOO_SHORT	0x80413104	The value of *rxbuflen* is too small. Check the *rxbuflen* value. The minimum value will depend on *maxnum*. Specify approximately 2 KB.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified. Check the *helloInterval*, *keepaliveInterval*, *initCount*, or *rexmtInterval* value. If *initCount* is less than 0, this is considered to be an invalid value. If *helloInterval*, *keepaliveInterval*, and *rexmtInterval* are set to be used, 0 is considered to be an invalid value.
SCE_NET_ADHOC_MATCHING_ERROR_NO_SPACE	0x80413109	Memory allocation Failed. Check whether the value of the memory pool specified with sceNetAdhocMatchingInit() is sufficient.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.
SCE_NET_ADHOC_MATCHING_ERROR_PORT_IN_USE	0x80413114	The port is already in use. A context has already been created with the same port number.

Description

This function creates a matching context.

When the function completes normally, it returns the context ID.

Notes

maxnum is valid only when *mode* is SCE_NET_ADHOC_MATCHING_MODE_PARENT.

helloInterval and *keepaliveInterval* are valid only when *mode* is SCE_NET_ADHOC_MATCHING_MODE_P2P or SCE_NET_ADHOC_MATCHING_MODE_PARENT.

See Also

sceNetAdhocMatchingDelete()

SceNetAdhocMatchingHandler

sceNetAdhocMatchingStart

Start matching

Definition

```
#include <adhoc_matching.h>

#define SCE_NET_ADHOC_MATCHING_THREAD_PRIORITY_DEFAULT
            SCE_KERNEL_DEFAULT_PRIORITY_USER
#define SCE_NET_ADHOC_MATCHING_THREAD_STACK_SIZE_DEFAULT
            (16 * 1024) // 16 KB
#define SCE_NET_ADHOC_MATCHING_THREAD_CPU_AFFINITY_MASK
            SCE_KERNEL_THREAD_CPU_AFFINITY_MASK_DEFAULT

int sceNetAdhocMatchingStart(
        int id,
        int threadPriority,
        int threadStackSize,
        int threadCpuAffinityMask,
        int helloOptlen,
        const void *helloOpt
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
threadPriority	Priority of internal thread
threadStackSize	CPU affinity of internal thread
threadCpuAffinityMask	Stack size of internal thread (bytes)
helloOptlen	Size of Hello message optional data
helloOpt	Hello message optional data

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_OPTLEN	0x80413105	The size of the specified Hello message option data is invalid. Check the specified *helloOptlen* value. The maximum value is SCE_NET_ADHOC_MATCHING_MAXHELLOOPTLEN. In particular, if *helloOpt* is NULL and a value greater than 0 is specified in *helloOptlen* this error will occur.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_NO_SPACE	0x80413109	Memory allocation Failed Check whether the value of the memory pool specified with sceNetAdhocMatchingInit() is sufficient.
SCE_NET_ADHOC_MATCHING_ERROR_IS_RUNNING	0x8041310a	The specified context is running. Stop the context by calling sceNetAdhocMatchingStop()
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function starts matching for the specified context ID.

If 0 is specified in *threadPriority*, *threadStackSize* and *threadCpuAffinityMask*, default values will be used internally. Default values will be the following macros, respectively.

- SCE_NET_ADHOC_MATCHING_THREAD_PRIORITY_DEFAULT
- SCE_NET_ADHOC_MATCHING_THREAD_STACK_SIZE_DEFAULT
- SCE_NET_ADHOC_MATCHING_THREAD_CPU_AFFINITY_MASK

Notes

helloOptlen and *helloOpt* are valid only when *mode* is SCE_NET_ADHOC_MATCHING_MODE_P2P or SCE_NET_ADHOC_MATCHING_MODE_PARENT.

This function will return SCE_NET_CTL_ERROR_NOT_CONNECTED if no connection has been established to the ad hoc network. Be sure to call this function only after a connection is established.

See Also

sceNetAdhocMatchingStop()

sceNetAdhocMatchingStop

Stop matching

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingStop(
        int id
);
```

Calling Conditions

Multithread safe.

Arguments

id Context ID

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function stops matching for the specified context ID.

It reports the cancellation of a join request to the target player who issued the request. It also reports the cancellation of a participation agreement to the target player with whom an agreement had been established.

See Also

sceNetAdhocMatchingStart()

sceNetAdhocMatchingDelete

Delete matching context

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingDelete(
        int id
);
```

Calling Conditions

Multithread safe.

Arguments

id Context ID

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_IS_RUNNING	0x8041310a	The specified context is running. Stop the context by calling sceNetAdhocMatchingStop()
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function deletes the matching context having the specified context ID.

Call this function after matching has stopped.

See Also

sceNetAdhocMatchingCreate()

sceNetAdhocMatchingSelectTarget

Select/accept target participating player

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingSelectTarget(
        int id,
        const struct SceNetInAddr *target,
        int optlen,
        const void *opt
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
target	Address of target participating player
optlen	Size of optional data
opt	Optional data

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_OPTLEN	0x80413105	Check the specified *optlen* value. The maximum value is SCE_NET_ADHOC_MATCHING_MAXOPTLEN. In particular, if *opt* is NULL and a value greater than 0 is specified in *Optlen* this error will occur.
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified NULL was specified for *target*
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NO_SPACE	0x80413109	Memory allocation Failed Check whether the value of the memory pool specified with sceNetAdhocMatchingInit() is sufficient.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_UNKNOWN_TARGET	0x8041310c	Target participating player does not exist. Check the specified *target* value.
SCE_NET_ADHOC_MATCHING_ERROR_TARGET_NOT_READY	0x8041310d	The target participating player has not performed reception. This occurs when the specified target participating player is in SCE_NET_ADHOC_MATCHING_MODE_PARENT mode.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_EXCEED_MAXNUM	0x8041310e	Target participating player maximum value exceeded. Target participating players have been chosen in excess of the maxnum value specified with sceNetAdhocMatchingCreate().
SCE_NET_ADHOC_MATCHING_ERROR_REQUEST_IN_PROGRESS	0x8041310f	Matching processing with the target participating player is in progress. A target participating player for whom selection processing is in progress has been specified. Wait for processing to end.
SCE_NET_ADHOC_MATCHING_ERROR_ALREADY_ESTABLISHED	0x80413110	Matching processing with the target participating player has already been completed. Since matching processing with the specified target participating player has already been completed, there is no need for processing.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function selects/accepts *target* as a participating player.

The result is reported via a handler function.

See Also

sceNetAdhocMatchingCancelTarget(), sceNetAdhocMatchingCancelTargetWithOpt()

sceNetAdhocMatchingCancelTarget

Cancel/deny selection of participating target player

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingCancelTarget(
        int id,
        const struct SceNetInAddr *target
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
target	Address of target player

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified NULL was specified for *target*
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_UNKNOWN_TARGET	0x8041310c	Target participating player does not exist. Check the specified *target* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function cancels/denies the selection of the participating player indicated by *target*.

See Also

sceNetAdhocMatchingSelectTarget(), sceNetAdhocMatchingCancelTargetWithOpt()

sceNetAdhocMatchingCancelTargetWithOpt

Cancel/deny selection of target player (with optional data)

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingCancelTargetWithOpt(
        int id,
        const struct SceNetInAddr *target,
        int optlen,
        const void *opt
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
target	Address of target player
optlen	Size of optional data
opt	Optional data

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_OPTLEN	0x80413105	Check the specified *optlen* value. The maximum value is SCE_NET_ADHOC_MATCHING_MAXOPTLEN. In particular, if *opt* is NULL and a value greater than 0 is specified in *optlen* this error will occur.
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified NULL was specified for *target*
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NO_SPACE	0x80413109	Memory allocation Failed Check whether the value of the memory pool specified with sceNetAdhocMatchingInit() is sufficient.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_UNKNOWN_TARGET	0x8041310c	Target participating player does not exist. Check the specified *target* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function cancels/denies the selection of the participating player indicated by *target*.

See Also

`sceNetAdhocMatchingSelectTarget(),sceNetAdhocMatchingCancelTarget()`

Data Transmission Functions

sceNetAdhocMatchingSendData

Send data

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingSendData(
        int id,
        const struct SceNetInAddr *target,
        int datalen,
        const void *data
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
target	Address of target player
datalen	Data size
data	Data

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified NULL was specified for *target* or *data*
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NO_SPACE	0x80413109	Memory allocation Failed Check whether the value of the memory pool specified with sceNetAdhocMatchingInit() is sufficient.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_UNKNOWN_TARGET	0x8041310c	Target participating player does not exist. Check the specified *target* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_DATALEN	0x80413116	Invalid data size was specified. Check the specified *datalen* value. The maximum value is SCE_NET_ADHOC_MATCHING_MAXDATALEN.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_ESTABLISHED	0x80413117	Matching with the target participating player has not been completed. Execute after completing matching with the specified *target*.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_DATA_BUSY	0x80413118	Data transmission with the target participating player is already in progress. Data cannot be sent consecutively until the acknowledgement for sent data (SCE_NET_ADHOC_MATCHING_EVENT_DATA_ACK) is received.

Description

This function sends data to *target*.

target must be in ESTABLISHED state.

The result of the send is reported via the handler function.

New data cannot be sent until the send result is reported or sceNetAdhocMatchingAbortSendData() is called.

The data resend interval and resend count are specified by sceNetAdhocMatchingCreate().

Notes

Child peers cannot change to ESTABLISHED state. Therefore, this function cannot be used for communication between CHILD peers.

See Also

sceNetAdhocMatchingAbortSendData()

sceNetAdhocMatchingAbortSendData

Cancel data send

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingAbortSendData(
        int id,
        const struct SceNetInAddr *target
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
target	Address of target player

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_UNKNOWN_TARGET	0x8041310c	Target participating player does not exist. Check the specified *target* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function interrupts the sending of data to *target*. It should be called when you want to send new data without waiting for the result of the previous send to be reported after sceNetAdhocMatchingSendData() is called.

See Also

sceNetAdhocMatchingSendData()

Information Acquisition/Setting Functions

sceNetAdhocMatchingSetHelloOpt

Set/update Hello message optional data

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingSetHelloOpt(
        int id,
        int optlen,
        const void *opt
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
optlen	Size of optional data
opt	Optional data

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_MODE	0x80413101	Invalid data mode. Cannot be executed for SCE_NET_ADHOC_MATCHING_MODE_CHILD. Check the *mode* specified with sceNetAdhocMatchingCreate().
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_OPTLEN	0x80413105	Invalid data size was specified. Check the specified *optlen* value. The maximum value is SCE_NET_ADHOC_MATCHING_MAXHELLOOPTLEN.
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NO_SPACE	0x80413109	Memory allocation Failed Check whether the value of the memory pool specified with sceNetAdhocMatchingInit() is sufficient.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function sets/updates the optional data for Hello messages.

To remove optional data from the message, call this function and specify 0 for *optlen* and NULL for *opt*. The setting will be in effect until matching ends.

See Also

`sceNetAdhocMatchingGetHelloOpt()`

sceNetAdhocMatchingGetHelloOpt

Get Hello message optional data

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingGetHelloOpt(
        int id,
        int *buflen,
        void *buf
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
buflen	Size of memory area indicated by *buf*
buf	Pointer to memory area for storing optional data

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_MODE	0x80413101	Invalid data mode. Cannot be executed for SCE_NET_ADHOC_MATCHING_MODE_CHILD. Check the *mode* specified with sceNetAdhocMatchingCreate().
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified NULL was specified for *buflen*
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function gets the optional data for the specified Hello message.

This function copies the data set in the area pointed to by *buf* and returns the length to *buflen*.

When *buflen* is less than the length of the optional data, only the first *buflen* size of optional data are copied.

When *buf* is NULL, only the length of the optional data is returned to *buflen*.

See Also

`sceNetAdhocMatchingSetHelloOpt()`

sceNetAdhocMatchingGetMembers

Get members

Definition

```
#include <adhoc_matching.h>
int sceNetAdhocMatchingGetMembers(
        int id,
        SceSize *memberNum,
        SceNetAdhocMatchingMember *members
);
```

Calling Conditions

Multithread safe.

Arguments

id	Context ID
memberNum	Number of members who have agreed to participate
members	Members who have agreed to participate

Return Values

0 is returned for normal completion.

Returns a negative value for errors. The main error codes are shown below. Note, however, that the application must not malfunction even if other error codes are returned.

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ARG	0x80413106	Invalid argument was specified NULL was specified for *memberNum*
SCE_NET_ADHOC_MATCHING_ERROR_INVALID_ID	0x80413107	Invalid context ID was specified. Check the specified *id* value.
SCE_NET_ADHOC_MATCHING_ERROR_NOT_RUNNING	0x8041310b	Matching has not been started. The specified matching context is not running. Start it with sceNetAdhocMatchingStart().
SCE_NET_ADHOC_MATCHING_ERROR_NOT_INITIALIZED	0x80413113	Not initialized. Execute sceNetAdhocMatchingInit() and initialize the Ad hoc Matching library.

Description

This function gets a list of members who currently have a participation agreement.

If NULL is specified in *members*, the number of members will return in *memberNum*.

If *members* is not NULL, the data of members who have agreed to participate is copied in *members*, with the number specified in *memberNum* as the maximum value.

Notes

The local terminal is included in the member list.

Therefore, if there are no members who have agreed to participate, only the local terminal will be returned as a member.

See Also

`SceNetAdhocMatchingMember`

SceNetAdhocMatchingHandler

Event handler prototype

Definition

```
#include <adhoc_matching.h>
typedef void (*SceNetAdhocMatchingHandler) (
        int id,
        int event,
        struct SceNetInAddr *peer,
        int optlen,
        void *opt
);
```

Arguments

id	Context ID
event	Event
peer	Address of event target
optlen	Size of optional data
opt	Optional data

Description

This event handler is called from the event handler thread to report an event from the Ad hoc Matching library.

Types of events and their meanings are listed below.

Event	Description
SCE_NET_ADHOC_MATCHING_EVENT_HELLO	A Hello message was received The optional data *opt* is valid when *optlen* >0
SCE_NET_ADHOC_MATCHING_EVENT_REQUEST	A join request was received The optional data *opt* is valid when *optlen* >0
SCE_NET_ADHOC_MATCHING_EVENT_LEAVE	The participation agreement was canceled by the target player
SCE_NET_ADHOC_MATCHING_EVENT_DENY	The join request was denied
SCE_NET_ADHOC_MATCHING_EVENT_CANCEL	The join request was canceled
SCE_NET_ADHOC_MATCHING_EVENT_ACCEPT	The join request was accepted The optional data *opt* is valid when *optlen* >0
SCE_NET_ADHOC_MATCHING_EVENT_ESTABLISHED	A participation agreement was established
SCE_NET_ADHOC_MATCHING_EVENT_TIMEOUT	The participation agreement was canceled because of a Keep Alive timeout
SCE_NET_ADHOC_MATCHING_EVENT_ERROR	A protocol error occurred

The following table shows the types of events that can occur as a function of the mode.

Event	P2P	PARENT	CHILD
SCE_NET_ADHOC_MATCHING_EVENT_HELLO	yes	no	yes
SCE_NET_ADHOC_MATCHING_EVENT_REQUEST	yes	yes	no
SCE_NET_ADHOC_MATCHING_EVENT_LEAVE	yes	yes	yes
SCE_NET_ADHOC_MATCHING_EVENT_DENY	yes	no	yes
SCE_NET_ADHOC_MATCHING_EVENT_CANCEL	yes	yes	no
SCE_NET_ADHOC_MATCHING_EVENT_ACCEPT	yes	no	yes
SCE_NET_ADHOC_MATCHING_EVENT_ESTABLISHED	yes	yes	yes *1
SCE_NET_ADHOC_MATCHING_EVENT_TIMEOUT	yes	yes	yes
SCE_NET_ADHOC_MATCHING_EVENT_ERROR	yes	yes	yes

yes: Can occur

no: Cannot occur

*1 This cannot occur among CHILD peers.

Notes

With threads that call the Ad hoc Matching library API and threads in event handler functions, you should be careful to avoid waiting for the same resource (such as using `sceKernelWaitSema()` to wait for the same semaphore). This is because threads calling the Ad hoc Matching library API and event-handler threads can get deadlocked.

The optional data indicated by *opt* is valid until the handler function returns.

To continue to use optional data after the handler returns, be sure to copy it to a local memory area.

See Also

`sceNetAdhocMatchingCreate()`

Constant Definitions

SCE_NET_ADHOC_MATCHING_MODE_XXX

Matching operating mode

Definition

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_MODE_PARENT	1	Multiplayer mode (parent)
SCE_NET_ADHOC_MATCHING_MODE_CHILD	2	Multiplayer mode (child)
SCE_NET_ADHOC_MATCHING_MODE_P2P	3	Multiplayer mode (Peer-to-Peer)

Description

These constants represent matching operating modes.

See Also

sceNetAdhocMatchingCreate()

SCE_NET_ADHOC_MATCHING_EVENT_XXX

Matching event

Definition

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_EVENT_HELLO	1	A Hello message was received
SCE_NET_ADHOC_MATCHING_EVENT_REQUEST	2	A join request was received
SCE_NET_ADHOC_MATCHING_EVENT_LEAVE	3	The participation agreement was canceled by the target player
SCE_NET_ADHOC_MATCHING_EVENT_DENY	4	The join request was denied
SCE_NET_ADHOC_MATCHING_EVENT_CANCEL	5	The join request was canceled
SCE_NET_ADHOC_MATCHING_EVENT_ACCEPT	6	The join request was accepted
SCE_NET_ADHOC_MATCHING_EVENT_ESTABLISHED	7	A participation agreement was established
SCE_NET_ADHOC_MATCHING_EVENT_TIMEOUT	8	The participation agreement was canceled because of a Keep Alive timeout
SCE_NET_ADHOC_MATCHING_EVENT_ERROR	9	A protocol error
SCE_NET_ADHOC_MATCHING_EVENT_BYE	10	Target participating player has stopped matching
SCE_NET_ADHOC_MATCHING_EVENT_DATA	11	Data received from target participating player
SCE_NET_ADHOC_MATCHING_EVENT_DATA_ACK	12	Acknowledgement of sent data received
SCE_NET_ADHOC_MATCHING_EVENT_DATA_TIMEOUT	13	Could not receive acknowledgement of sent data by the specified retry interval and retry count

Description

These constants represent matching events.

See Also

`SceNetAdhocMatchingHandler()`

SCE_NET_ADHOC_MATCHING_MAXXXX

Maximum data lengths

Definition

Value	(Number)	Description
SCE_NET_ADHOC_MATCHING_MAXOPTLEN	9196	Maximum length of the *optlen* argument of sceNetAdhocMatchingSelectTarget() and sceNetAdhocMatchingCancelTargetWithOpt()
SCE_NET_ADHOC_MATCHING_MAXDATALEN	9204	Maximum length of the *datalen* argument of sceNetAdhocMatchingSendData()
SCE_NET_ADHOC_MATCHING_MAXHELLOOPTLEN	1426	Maximum length of the *helloOptlen* argument of sceNetAdhocMatchingStart() and the *optlen* argument of sceNetAdhocMatchingSetHelloOpt()

Description

These constants represent maximum lengths for the length of data to send specified in each API.

See Also

sceNetAdhocMatchingSelectTarget(), sceNetAdhocMatchingCancelTargetWithOpt(), sceNetAdhocMatchingSendData(), sceNetAdhocMatchingStart(), sceNetAdhocMatchingSetHelloOpt()