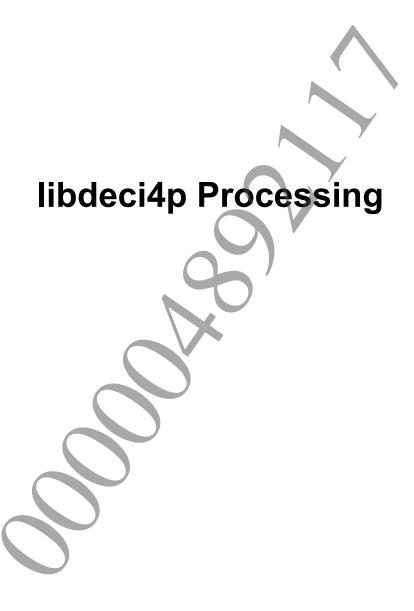


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sceKernelDeci4pOpen

Open DECI4p protocol socket

Definition

Arguments

protoname Name of protocol driver

Whether the name is unique is not checked. The name can be up to 31 bytes long.

protonum Protocol number

bufsize Packet buffer size (unit: byte)

Specify the size from 16 bytes to 1 MB in multiples of 4.

Return Values

Upon normal termination, becomes a positive value and returns the DECI4p protocol socket ID. Upon occurrence of an error, becomes a negative value and returns one of the following error codes.

Value	(Number)	Description
SCE_KERNEL_ERROR_DECI4P_UNKNOWN	0x80080800	Undefined error not listed
		below
SCE_KERNEL_ERROR_DECI4P_ALREADYUSE_PROTOCOL	0x80080801	Protocol number that is
		already used
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_SID	0x80080802	Invalid socket ID
SCE_KERNEL_ERROR_DECI4F_ILLEGAL_ADDR	0x80080804	Invalid address
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_SIZE	0x80080805	Invalid size
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_PROTOCOL	0x80080806	Invalid protocol number
SCE_KERNEL_ERROR_DECI4P_NO_MEMORY	0x80080807	Insufficient memory
SCE_KERNEL_ERROR_DEC14P_TOOMANY_PROTOCOL	0x80080809	Too many protocols

Description

Specify the DECI4p protocol number to be used and register the protocol driver. The socket ID returned here is used from then for function calls.

The buffer used by the protocols for communication is allocated from the dedicated memory partition of the Development Kit. DECI4p packets of a size that exceeds the buffer size cannot be received.

Document serial number: 000004892117

sceKernelDeci4pClose

Close DECI4p protocol socket

Definition

Arguments

socketid DECI4p protocol socket ID

Return Values

Upon normal termination, returns SCE_OK (=0). Returns the following error code upon an error.

Value			(Number)	Description			
SCE_	KERNEL_	ERROR	DECI4P	_ILLEGAL_	SID	0x80080802	Invalid socket ID

Description

This function closes the open DECI4p socket.

See Also

sceKernelDeci4pOpen()



sceKernelDeci4pRead

Receive data from DECI4p protocol socket

Definition

Arguments

socketid DECI4p protocol socket ID

buffer Address of DECI4p payload data receive buffer Size Size of DECI4p payload data receive buffer

reserved Specify 0

Return Values

Upon normal termination, returns a receive size of 0 or larger. Returns one of the following error codes upon an error.

Value	(Number)	Description
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_SID	0x80080802	Invalid socket ID
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_ADDR	0x80080804	Invalid address
SCE_KERNEL_ERROR_DEC14P_ILLEGAL_SIZE	0x80080805	Invalid size
SCE_KERNEL_ERROR_DECI4P_NO_MEMORY	0x80080807	Insufficient memory
SCE_KERNEL_ERROR_DEC14P_ILLEGAL_RESERVED	0x80080808	Invalid value
SCE_KERNEL_ERROR_DECI4F_NO_CONNECT	0x8008080A	Not connected to
		development host computer
SCE_KERNEL_ERROR_DECI4P_NO_PROTO	0x8008080B	Protocol not registered in
		Target Manager API
SCE KERNEL ERROR DEC14P TOOSMALL BUFFER	0x8008080C	Buffer is too small

Description

This function receives data from an open DECI4p socket.

Reception is not possible when a buffer size smaller than the received DECI4p packet size is specified.

See Also

sceKernelDeci4pOpen()

sceKernelDeci4pWrite

Send data to DECI4p protocol socket

Definition

Arguments

socketid DECI4p protocol socket ID

buffer Address of DECI4p payload data send buffer

size DECI4p payload data send size

reserved Specify 0.

Return Values

Upon normal termination, returns a send size of 0 or larger Returns one of the following error codes upon an error.

Value	(Number)	Description
SCE_KERNEL_ERROR_DECI4P_UNKNOWN	0x80080800	Undefined error not listed
		below
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_SID	0x80080802	Invalid socket ID
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_ADDR	0x80080804	Invalid address
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_SIZE	0x80080805	Invalid size
SCE_KERNEL_ERROR_DECI4F_ILLEGAL_PROTOCOL	0x80080806	Invalid protocol number
SCE_KERNEL_ERROR_DECI4P_NO_MEMORY	0x80080807	Insufficient memory
SCE_KERNEL_ERROR_DECI4P_ILLEGAL_RESERVED	0x80080808	Invalid value
SCE_KERNEL_ERROR_DECI4P_NO_CONNECT	0x8008080A	Not connected to
		development host computer
SCE_KERNEL_ERROR_DECI4P_NO_PROTO	0x8008080B	Protocol not registered in
		Target Manager API

Description

This function sends data to an open DECI4p socket.

See Also

sceKernelDeci4pOpen()

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SceKernelDeci4pCallback

DECI4p socket callback function prototype

Definition

Arguments

```
        notifyId
        SCE_UID_INVALID_UID

        notifyCount
        Number of notifications

        callbackArg
        Notified events

        pCommon
        Callback parameter of application definition registered with sceKernelCreateCallback()
```

Return Values

Always returns SCE OK (=0).

Description

This is a prototype of the callback function for receiving DECI4p socket event notifications.

To receive notification callback from a DECI4p socket, register the SceUID value of the callback generated with the sceKernelCreateCallback() function using the sceKernelDeci4pRegisterCallback() function. The notified event callbackArg is defined as follows.

31	2	24 23	16 15		8 7	0
	EVENT			DATA SIZE		

Bits 31 to 24 are defined as events through logical OR expression.

EVENT	Description
SCE_KERNEL_DECI4P_CALLBACKARG_DATA_READY	Data received
SCE_KERNEL_DEC14P_CALLBACKARG_NOCONNECT	Not connected to development host computer
SCE KERNEL DECI4P CALLBACKARG NOPROTOCOL	No protocol is registered

Bits 23 to 0 define the size during data reception.

See Also

sceKernelDeci4pRegisterCallback(), sceKernelCreateCallback()

sceKernelDeci4pRegisterCallback

Register DECI4p socket callback function

Definition

```
#include <libdeci4p.h>
int32 t sceKernelDeci4pRegisterCallback(
        SceUID socketid,
        SceUID cbid
);
```

Arguments

```
socketid DECI4p protocol socket ID
           Callback ID
```

Return Values

Upon normal termination, returns SCE OK (=0).

Returns one of the following error codes upon an error

Value		(Number)	Description
SCE_KERNEL_ERROR_DE	ECI4P_ILLEGAL_SID	0x80080802	Invalid socket ID
SCE_KERNEL_ERROR_DE	ECI4P_ILLEGAL_CBID	0x80080803	Invalid callback ID

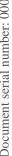
Description

This function registers callback function for receiving DECI4p socket event notifications. Callbacks are registered by socket. Callbacks that are registered with this function cannot be deregistered.

After closing a socket with the sceKernelDeci4pClose() function, delete callbacks with the sceKernelDeleteCallback() function.

See Also

sceKernelCreateCallback(), sceKernelDeleteCallback()



sceKernelDeci4plsProcessAttached

Get host debugger connection status

Definition

Arguments

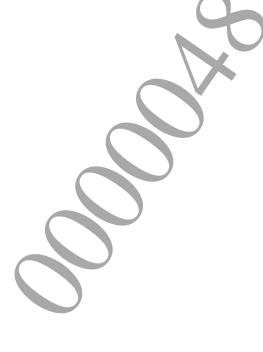
None

Return Values

Value	Description
0	Host debugger is disconnected
Value other than 0	Host debugger is connected

Description

This function enables the program that called this function to check whether or not a connection is established to it from the host debugger on the development host computer.



sceKernelDeci4pEnableWatchpoint

Enable data breakpoint (watchpoint)

Definition

```
#include <libdeci4p.h>
SceInt32 sceKernelDeci4pEnableWatchpoint(
        void
);
```

Arguments

None

Return Values

Value	Description
Negative value	Error code

Description

This function enables a data breakpoint (watchpoint) that was disabled with the sceKernelDeci4pDisableWatchpoint() function.



sceKernelDeci4pDisableWatchpoint

Disable data breakpoint (watchpoint)

Definition

Arguments

None

Return Values

Value	Description
Negative value	Error code

Description

This function disables a data breakpoint (watchpoint) set with the host debugger. It can be re-enabled with the sceKernelDeci4pEnableWatchpoint () function.



SceKernelDeci4pCreateHostProcessParam

Startup parameters for application in development host computer

Definition

Members

flagsStartup optionsreserved0Reserved area (specify 0)pathNamePath name of executable file in development host computercmdLineCommand line argument to pass to application, or NULLworkDirCurrent directory upon application execution, or NULL (refer to Description)reserved1Reserved area (fill with all 0s)

Description

This structure represents the parameters for starting an application in a development host computer.

It is used when starting an application with sceKernelDeci4pCreateHostProcess() or sceKernelDeci4pCreateHostProcessAndWait().

For *flags*, specify the settings related to application window display and the settings related to the current directory upon application execution. Specify the bitwise OR of each value.

One of the following values can be specified for the application window settings.

Value	Description
SCE_KERNEL_DEC14P_HOST_PROCESS_WINDOW_SHOW	Show window
SCE_KERNEL_DEC14P_HOST_PROCESS_WINDOW_HIDE	Hide window

One of the following values can be set as the current directory upon application execution.

Value	Description
SCE_KERNEL_DECI4P_HOST_PROCESS_	Development host computer file server directory (specify
WORKDIR_FSROOT	NULL for workDir)
SCE_KERNEL_DEC14P_HOST_PROCESS_	Parent directory of executable file specified with
WORKDIR_EXECUTABLE	pathName (specify NULL for workDir)
SCE_KERNEL_DECI4P_HOST_PROCESS_	Directory specified with workDir
WORKDIR OVERRIDE	

For pathName, specify the path name of the executable file of the application to start beginning with host0:. Both relative paths from the file server directory and absolute paths can be used.

In addition, environment variables such as %WINDIR% can be used for pathName.

For <code>cmdLine</code>, it is possible to specify a command line argument to pass to the application. If an argument is not required, specify NULL.

For workDir, specify the path name of the current directory upon application execution. For workDir, specify a Windows absolute path that includes the drive letter. The workDir value will be valid only when SCE_KERNEL_DECI4P_HOST_PROCESS_WORKDIR_OVERRIDE is specified for flags. In other cases, specify NULL.

In addition, the string length that can be specified for <code>pathName</code>, <code>cmdLine</code>, and <code>workDir</code> is up to <code>SCE_KERNEL_DECI4P_HOST_PROCESS_MAX_STR_SIZE</code> bytes including the NULL terminator.

See Also

sceKernelDeci4pCreateHostProcess(), sceKernelDeci4pCreateHostProcessAndWait()



SceKernelDeci4pCreateHostProcessResult

Startup result for application in development host computer

Definition

Members

hostProcessId Process ID in development host computer
hostErrorCode Error code for CreateProcessW() called in development host computer
reserved0 Reserved area (always 0)

Description

This structure represents the startup result for an application in a development host computer. When executing an application with sceKernelDeci4pCreateHostProcess() or sceKernelDeci4pCreateHostProcessAndWait(), the startup result will be stored in this structure.

In hostProcessId, the process ID will be stored if the application successfully starts.

In hostErrorCode, if sceKernelDeci4pCreateHostProcess() or sceKernelDeci4pCreateHostProcessAndWait() returns SCE_KERNEL_ERROR_DECI4P_HOST_CREATE_PROCESS, an error code for the CreateProcessW() called in the development host computer will be stored.

See Also

sceKernelDeci4pCreateHostProcess(), sceKernelDeci4pCreateHostProcessAndWait()



SceKernelDeci4pHostProcessExitCallback

Callback function prototype for application exit in development host computer

Definition

Arguments

notifyId SCE_UID_INVALID_UID

notifyCount Notify count

notifyArg Pointer to SceKernelDeci4pHostProcessExitInfo structure

pCommon Application defined callback parameters registered with

sceKernelCreateCallback()

Return Values

Value	Description	
0	Do not delete this callback	
Not 0	Delete this callback	

Description

This is a prototype of the callback function that receives exit notifications for applications started with sceKernelDeci4pCreateHostProcess().

To notifyArg, a pointer to the SceKernelDeci4pHostProcessExitInfo structure that represents the exit wait result will be passed (casting is required since it is passed as a SceInt32 type).

See Also

SceKernelDeci4pHostProcessExitInfo, sceKernelDeci4pCreateHostProcess(),
sceKernelCreateCallback()

SceKernelDeci4pHostProcessExitInfo

Exit information for application in development host computer

Definition

Members

result Application exit wait result
hostProcessId Process ID in development host computer

hostProcessExitCode Application exit code reserved0 Reserved area (always 0)

Description

This structure represents the exit wait result for an application in a development host computer. A pointer to this structure will be passed to notify Arg in a callback function (casting is required since it is passed as a SceInt32 type)

SCE_OK (=0) will be stored in result when the exit wait completed successfully. One of the following error codes (a negative value) will be stored for errors.

Value	e		(Number)	Description
SCE_	KERNEL_ERROR_DECI4P_UNF	KNOWN	0x80080800	Undefined error not listed below
SCE :	KERNEL ERROR DECI4P INT	TERRUPTED	0x8008080E	Disconnected during exit wait

In hostProcessId, the process ID in the development host computer will be stored.

In hostProcessExitCode, the application exit code will be stored. This field will be valid only when result is SCE OK (=0).

See Also

SceKernelDeci4pHostProcessExitInfo, sceKernelDeci4pCreateHostProcess()

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sceKernelDeci4pCreateHostProcess

Asynchronously execute application in development host computer

Definition

Arguments

param Application startup parameters

result Destination to store the application startup result

cbid Callback ID to receive exit notification exitInfo Destination to store application exit result

Return Values

Returns SCE_OK (=0) and stores the startup result in *result when application startup is successful. Afterward, the exit result will be stored in *exitInfo, and notification to cbid will be performed. One of the following error codes (a negative value) will return when application startup fails. Notification to cbid will not be performed.

X7 1		D
Value	(Number)	Description
SCE_KERNEL_ERROR_DECI4P_	0x80080800	Undefined error not listed below
UNKNOWN		
SCE_KERNEL_ERROR_DECI4P_	0x80080803	Invalid callback ID
ILLEGAL_CBID		
SCE KERNEL ERROR DECI4P	0x80080804	Invalid address
ILLEGAL_ADDR		
SCE KERNEL ERROR DECI4P	0x80080807	Insufficient memory
NO_MEMORY		
SCE_KERNEL_ERROR_DECI4P	0x80080808	Reserved area is being used
ILLEGAL_RESERVED		
SCE_KERNEL_ERROR_DECI4P_	0x8008080A	Not connected to development host computer
NO_CONNECT		
SCE KERNEL ERROR DECI4P	0x8008080D	Invalid startup parameter
ILLEGAL_PARAM		
SCE KERNEL ERROR DECI4P	0x8008080F	This feature is disabled in development host
HOST_PROCESS_DISABLED		computer
SCE KERNEL ERROR DECI4P	0x80080810	Process creation in development host computer
HOST_CREATE_PROCESS		failed
SCE KERNEL ERROR DECI4P	0x80080811	Number of processes being generated is too
HOST_TOOMANY_PROCESS		many

Description

This function asynchronously executes an application in a development host computer. This function will return immediately after application startup without waiting for it to exit. When the application exits, the specified callback will be notified.

For param, specify the application startup parameters with an SceKernelDeci4pCreateHostProcessParam structure. The startup result will be stored in result.

For cbid, specify the ID of the callback created with the sceKernelCreateCallback() function.

If this function is successful, notification will be performed when the application exits or when an error occurs while waiting for exit. At this time, the exit result or error code will be stored in *exitInfo. Make sure that the memory area pointed to by exitInfo is not invalid until notification to the callback is performed when this function is successful (particularly when using local variables).

Notes

Application startup is performed by Target Manager Server calling the Win32 API CreateProcessW() in a development host computer.

See Also

SceKernelDeci4pCreateHostProcessParam, SceKernelDeci4pCreateHostProcessResult, SceKernelDeci4pHostProcessExitCallback, SceKernelDeci4pHostProcessExitInfo

sceKernelDeci4pCreateHostProcessAndWait

Execute application in development host computer and wait until exit

Definition

Arguments

param Application startup parameters

result Destination to store the application startup result hostProcessExitCode Destination to store the application exit code

Return Values

Stores the startup result in *result when application startup is successful.

Returns one of the following error codes (a negative value) when the application could not start due to an error.

Value	(Number)	Description
SCE_KERNEL_ERROR_DEC14P UNKNOWN	0x80080800	Undefined error not listed below
SCE_KERNEL_ERROR_DECI4P ILLEGAL CBID	0x80080803	Invalid callback ID
SCE_KERNEL_ERROR_DEC14P ILLEGAL ADDR	0x80080804	Invalid address
SCE_KERNEL_ERROR_DEC14P _NO_MEMORY	0x80080807	Insufficient memory
SCE_KERNEL_ERROR_DECI4PILLEGAL_RESERVED	0x80080808	Reserved area is being used
SCE_KERNEL_ERROR_DECI4P NO CONNECT	0x8008080A	Not connected to development host computer
SCE_KERNEL_ERROR_DEC14P ILLEGAL PARAM	0x8008080D	Invalid startup parameter
SCE_KERNEL_ERROR_DECI4P _HOST_PROCESS_DISABLED	0x8008080F	Functionality in development host computer is disabled
SCE_KERNEL_ERROR_DECI4P _HOST_CREATE_PROCESS	0x80080810	Process creation in development host computer failed
SCE_KERNEL_ERROR_DECI4P HOST TOOMANY PROCESS	0x80080811	Number of processes being generated is too many

The exit code will be stored in *hostProcessExitCode for completion up to application exit.

This function will return SCE_OK (=0) when up to application exit is successful.

One of the following error codes (a negative value) will return when an error occurred during the wait for the application to exit after application startup.

Value	(Number)	Description
SCE_KERNEL_ERROR_DECI4P_UNKNOWN	0x80080800	Undefined error not listed below
SCE_KERNEL_ERROR_DECI4P_INTERRUPTED	0x8008080E	Disconnected during exit wait

Description

This function executes an application in a development host computer. When application startup is successful, this function will block the caller thread until the application exits.

For param, specify the application startup parameters with an SceKernelDeci4pCreateHostProcessParam structure.

The startup result will be stored in *result, and the exit code will be stored in *hostProcessExitCode. For details on application startup results, refer to the "SceKernelDeci4pCreateHostProcessResult" section.

Notes

Application startup is performed by Target Manager Server calling the Win32 API CreateProcessW() in a development host computer.

See Also

SceKernelDeci4pCreateHostProcessParam,SceKernelDeci4pCreateHostProcessResult



Constants

List of libdeci4p constants

Definition

Value	(Number)	Description
SCE_KERNEL_DECI4P_	0x10000000	Data received
CALLBACKARG DATA READY		
SCE_KERNEL_DECI4P_	0x20000000	Not connected to development host
CALLBACKARG_NOCONNECT		computer
SCE_KERNEL_DECI4P_	0x40000000	Protocol not registered
CALLBACKARG_NOPROTOCOL		
SCE_KERNEL_DECI4P_	0x00000000	Show window
HOST_PROCESS_WINDOW_SHOW		
SCE_KERNEL_DECI4P_	0x00000001	Hide window
HOST_PROCESS_WINDOW_HIDE		
SCE_KERNEL_DECI4P_	0x00000000	Make current directory file server directory
HOST_PROCESS_WORKDIR_FSROOT		
SCE_KERNEL_DECI4P_	0x00000002	Make current directory with executable file
HOST_PROCESS_WORKDIR_EXECUTABLE		
SCE_KERNEL_DECI4P_	0x00000004	Specify current directory
HOST_PROCESS_WORKDIR_OVERRIDE		
SCE_KERNEL_DECI4P_	1024	Maximum string length (including the
HOST_PROCESS_MAX_STR_SIZE		NULL terminator)

Return Codes

List of return codes returned by libdeci4p functions

Definition

Value	(Number)	Description
SCE KERNEL ERROR DECI4P	0x80080800	Undefined error not listed below
UNKNOWN		
SCE_KERNEL_ERROR_DECI4P	0x80080801	Protocol number that is already used
_ALREADYUSE_PROTOCOL		, in the second of the second
SCE_KERNEL_ERROR_DECI4P	0x80080802	Invalid socket ID
ILLEGAL_SID		
SCE_KERNEL_ERROR_DECI4P	0x80080803	Invalid callback ID
ILLEGAL_CBID		
SCE_KERNEL_ERROR_DECI4P	0x80080804	Invalid address
ILLEGAL_ADDR		
SCE_KERNEL_ERROR_DECI4P	0x80080805	Invalid size
_ILLEGAL_SIZE		
SCE_KERNEL_ERROR_DEC14P	0x80080806	Invalid protocol number
ILLEGAL_PROTOCOL		
SCE_KERNEL_ERROR_DECI4P	0x80080807	Insufficient memory
NO MEMORY		
SCE_KERNEL_ERROR_DECI4P	0x80080808	Invalid value
ILLEGAL_RESERVED	2 2222222	
SCE_KERNEL_ERROR_DECI4P	0x80080809	Too many protocols
TOOMANY PROTOCOL	0.00000004	
SCE_KERNEL_ERROR_DECI4P	0x8008080A	Not connected to development host computer
NO_CONNECT	0.0000000	D (1 () () () ADI
SCE_KERNEL_ERROR_DEC14P NO PROTO	0x8008080B	Protocol not registered in Target Manager API
SCE KERNEL ERROR DECI4P	0x8008080C	Buffer is too small
TOOSMALL BUFFER	UX8008080C	buffer is too small
SCE KERNEL ERROR DECI4P	0x8008080D	Invalid startup parameter
ILLEGAL PARAM	UNDUGUGUD	invana startup parameter
SCE KERNEL ERROR DEC14P	0x8008080E	Interrupted during exit wait
INTERRUPTED	CACCOCOCOE	interrupted during exit wait
SCE KERNEL ERROR DECI4P	0x8008080F	Functionality in development host computer is
HOST PROCESS DISABLED		disabled
SCE KERNEL ERROR DEC14P	0x80080810	Process creation in development host computer
HOST CREATE PROCESS	0.00000010	failed
	0.00000011	
SCE_KERNEL_ERROR DECI4P	0x80080811	Number of processes being generated is too many
HOST_TOOMANY_PROCESS		