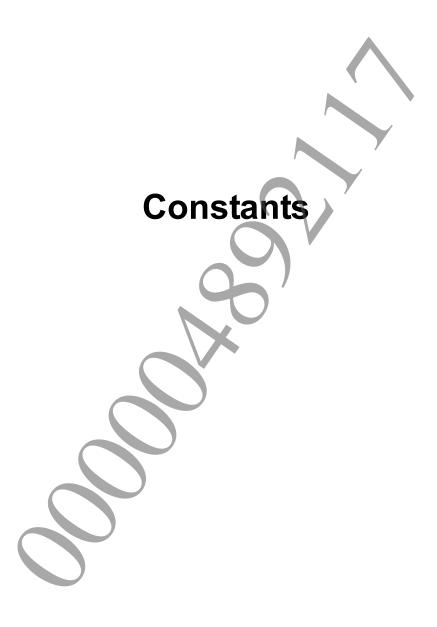


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Touch Panel Port Number Definition

Definition of port numbers of touch panels

Definition

```
#include <touch.h>
#define SCE_TOUCH_PORT_FRONT 0
#define SCE_TOUCH_PORT_BACK 1
#define SCE_TOUCH_PORT_MAX_NUM 2
```

Description

These are the port numbers specified to access touch data with sceTouchRead() and sceTouchPeek().

To obtain the front touch data, obtain SCE_TOUCH_PORT_FRONT, and to obtain the rear touch data, obtain SCE_TOUCH_PORT_BACK.

See Also

sceTouchRead(),sceTouchPeek()



Definition for Sampling Port Setting

Definition for sampling port setting of the touch panel

Definition

```
#include <touch.h>
#define SCE_TOUCH_SAMPLING_STATE_STOP 0
#define SCE TOUCH SAMPLING STATE START 1
```

Description

This is the definition value for setting the port for obtaining touch data with sceTouchSetSamplingState().

For details, refer to the description of sceTouchSetSamplingState().

See Also

sceTouchSetSamplingState(), sceTouchGetSamplingState()



Definition for Touch Status

Definition for status field of SceTouchData structure

Definition

#include <touch.h>
#define SCE TOUCH STATUS INTERCEPTED

0x00010000

Description

This is the definition used in the *status* field of SceTouchData. For details, refer to the "SceTouchData" section.

See Also

SceTouchReport



Definition for Touch Information Field

Definition for info field of SceTouchReport structure

Definition

#include <touch.h>
#define SCE TOUCH REPORT INFO HIDE UPPER LAYER 0x0001

Description

This is the definition used in the *info* field of SceTouchReport. For details, refer to the "SceTouchReport" section.

See Also

SceTouchReport



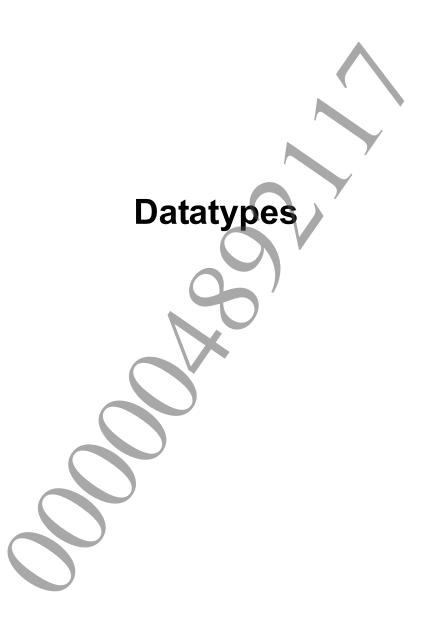
Error Codes

List of error codes

Definition

Macro	Value	Description
SCE_TOUCH_ERROR_INVALID_ARG	0x80350001	Invalid argument specified
SCE_TOUCH_ERROR_PRIV_REQUIRED	0x80350002	Access with invalid privilege
SCE_TOUCH_ERROR_FATAL	0x803500FF	Fatal error occurred





SceTouchPanelInfo

Structure for touch panel information obtainment

Definition

```
#include <touch.h>
typedef struct SceTouchPanelInfo {
    SceInt16 minAaX;
    SceInt16 minAaY;
    SceInt16 maxAaX;
    SceInt16 maxAaY;
    SceInt16 minDispX;
    SceInt16 minDispX;
    SceInt16 minDispY;
    SceInt16 maxDispX;
    SceInt16 maxDispX;
    SceInt16 maxDispY;
    SceUnt8 minForce;
    SceUInt8 minForce;
    SceUInt8 rsv[30];
}
```

Members

minAaX	Minimum value of X coordinate of active area of touch panel
minAaY	Minimum value of Y coordinate of active area of touch panel
maxAaX	Maximum value of X coordinate of active area of touch panel
maxAaY	Maximum value of Y coordinate of active area of touch panel
minDispX	Touch panel X coordinate of display coordinate origin (top left corner)
minDispY	Touch panel Y coordinate of display coordinate origin (top left corner)
${\it maxDispX}$	Touch panel X coordinate of display coordinate maximum value (bottom right corner)
${\it maxDispY}$	Touch panel Y coordinate of display coordinate maximum value (bottom right corner)
minForce	Minimum value of touch force
maxForce	Maximum value of touch force
rsv[30]	Reserved area
I'S V [3 U]	Reserved area

Description

This structure is for obtaining the touch panel information.

The touch panel outputs the data of the X and Y coordinates in the range of coordinates obtained in the active area (minAaX, minAaY, maxAaX, maxAaY).

(minDispX, minDispY, maxDispX, maxDispY) indicates the display position in the touch panel coordinate system.

Minimum value and maximum value of touch force can be obtained with minForce/maxForce.

Notes

The relation between the active area and display area is not the same for the front touch panel and the rear touch panel.

Before using the touch panel, it is recommended to obtain the information for each touch panel to be used with sceTouchGetPanelInfo().

See Also

sceTouchGetPanelInfo()

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SceTouchData, SceTouchReport

Data definition for touch data obtainment

Definition

```
#include <touch.h>
#define SCE TOUCH MAX REPORT 8
typedef struct SceTouchReport {
        SceUInt8 id;
        SceUInt8 force;
        SceInt16 x;
        SceInt16 y;
        SceUInt8 rsv[8];
        SceUInt16 info;
} SceTouchReport;
typedef struct SceTouchData {
        SceUInt64 timeStamp;
        SceUInt32 status;
        SceUInt32 reportNum;
        SceTouchReport report[SCE TOUCH MAX REPORT];
} SceTouchData;
```

Members

SceTouchReport members

idTouch report IDforceForce of touch at ground pointxX coordinate of touch pointyY coordinate of touch pointrsvReserved areainfoTouch information field

SceTouchData members

timeStamp Time stamp during touch data obtainment (process time: μ sec) status Stores touch data status reportNum Returns the number of currently active touch points. report Touch report data

Description

This structure is for obtaining the touch data state information.

The time stamp indicating the time (process time) at which the data were obtained is placed in the timeStamp argument of SceTouchData.

The status argument of SceTouchData stores the touch data status. Currently, only the SCE_TOUCH_STATUS_INTERCEPTED state is defined. For details, refer to the "Touch Data Status" section in the "Touch Data" chapter of the "Touch Service Overview" document.

The number of valid touch reports is placed in the <code>reportNum</code> argument of <code>SceTouchData</code>. The maximum number of valid touch reports is currently 6 for the front touch panel and 4 for the rear touch panel.

The touch report ID is placed in the id argument of SceTouchReport. One such ID is allocated each time the touch panel is touched, and the ID is guaranteed to remain unchanged until that touch point is released. The output range of id is the range from 0 to 127.

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For the <code>force</code> argument of <code>SceTouchReport</code>, when enabling touch force information with <code>sceTouchEnableTouchForce()</code>, 0 will be set when there is no touch and 128 will be set when there is a touch regardless of its force. When disabling touch force information with <code>sceTouchDisableTouchForce()</code>, 0 will always be set regardless of touch/no touch. Support for touch force information ended with SDK 2.500. For SDK 2.500 and later, Do not use the <code>force</code> value in an application.

The position of the X coordinate of the touch point is placed in the x argument of SceTouchReport.

The output range is the range from SceTouchPanelInfo::minAaX to SceTouchPanelInfo::maxAaX.

The position of the Y coordinate of the touch point is placed in the y argument of SceTouchReport.

The output range is the range from SceTouchPanelInfo::minAaY to SceTouchPanelInfo::maxAaY.

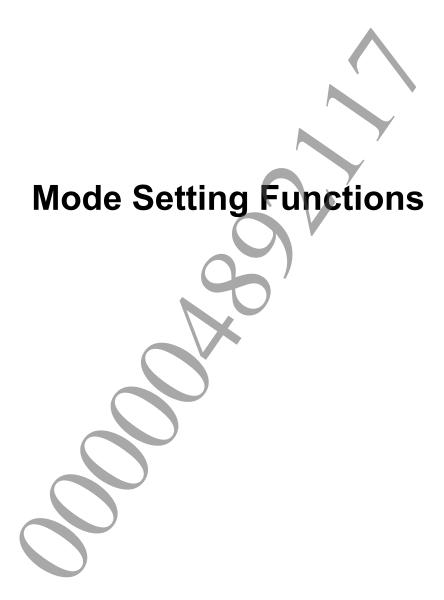
The info argument of SceTouchReport is the touch information field.

Currently, only the SCE TOUCH REPORT INFO HIDE UPPER LAYER state is defined.

For details, refer to the "Touch information field" section in the "Touch Data" chapter of the "Touch Service Overview" document.

See Also

sceTouchRead(),sceTouchPeek()



sceTouchGetPanelInfo

Get touch panel information

Definition

Arguments

Return Values

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

This function obtains the touch panel information of the panel specified in the *port* argument. For details on the touch panel information, refer to the description of SceTouchPanelInfo.

See Also

SceTouchPanelInfo

sceTouchSetSamplingState

Set sampling state

Definition

Arguments

```
port Front touch panel: SCE_TOUCH_PORT_FRONT
    Rear touch panel: SCE_TOUCH_PORT_BACK
state Sampling stop: SCE_TOUCH_SAMPLING_STATE_STOP
    Sampling start: SCE_TOUCH_SAMPLING_STATE_START
```

Return Values

The setting value of the data sampling state set until now is returned.

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

This function sets the sampling state of the touch panel.

To enable the front touch panel, specify SCE_TOUCH_PORT_FRONT in the port argument and specify SCE_TOUCH_SAMPLING_STATE_START in the state argument.

To enable the rear touch panel, specify SCE_TOUCH_PORT_BACK in the port argument and specify SCE_TOUCH_SAMPLING_STATE_START in the state argument.

By default, both the front and the rear touch panels are in the sampling stop state.

See Also

sceTouchGetSamplingState()



sceTouchGetSamplingState

Get value of data obtainment port mask setting of touch panel

Definition

Arguments

```
Port Front touch panel: SCE_TOUCH_PORT_FRONT
Rear touch panel: SCE_TOUCH_PORT_BACK

pState Area for obtaining the current sampling state
Obtainment is possible for the following states.

Sampling stop: SCE_TOUCH_SAMPLING_STATE_STOP
Sampling start: SCE_TOUCH_SAMPLING_STATE_STARE
```

Return Values

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

This function obtains the sampling state of the touch panel that is currently set.

The setting can be changed with the sceTouchSetSamplingState() function.

See Also

sceTouchSetSamplingState()

sceTouchEnableTouchForce

Enable the force output of touch panel (not recommended)

Definition

Arguments

Return Values

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

Support for touch force information ended with SDK 2.500. Do not call this API.

See Also

sceTouchDisableTouchForce()

sceTouchDisableTouchForce

Disable the force output of touch panel (not recommended)

Definition

Arguments

Return Values

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

Support for touch force information ended with SDK 2.500. Do not call this API.

See Also

sceTouchEnableTouchForce()



sceTouchRead

Get touch data by blocking

Definition

Arguments

```
    Port Front touch panel: SCE_TOUCH_PORT_FRONT Rear touch panel: SCE_TOUCH_PORT_BACK
    PData Buffer to receive touch data
    Number of buffers to receive touch data (1 to 64)
```

Return Values

The number of sets of touch data that were returned to pData is returned. The value is in the range of 1 to nBufs.

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

This function obtains the touch data by blocking.

Up to 64 of the most recent sets of touch data are held in the buffers in the touch service, and the sceTouchRead() function obtains touch data sets of the number specified by the nBufs argument, starting from the current position of the read pointer, and then updates the read pointer.

If sampling of the touch data was not performed even once during the period from the last time the sceTouchRead() function was called until the current call, then the thread is blocked in the sceTouchRead() function until the touch data is sampled again. Consequently, the return value is always 1 or greater, and the most recent data is obtained.

When the sceTouchRead() function cannot be called at each set sampling period due to a processing delay, etc., by setting the value of nBufs to 2 or greater, it is possible to ascertain whether or not there was a processing delay based on whether or not the return value is greater than 1.

Notes

Differences with Similar Functions

With the sceTouchPeek() function, touch data is obtained by snooping, so if the function is called earlier than the sampling period, the latest sampling results are repeatedly obtained without blocking the thread.

Behavior when this function is called while touch data sampling is not enabled

When this function is called while touch data sampling is not enabled by sceTouchSetSamplingState(), data is obtained with SceTouchData::reportNum as '0'.

See Also

SceTouchData, sceTouchPeek()



sceTouchPeek

Get touch data by polling

Definition

Arguments

```
    port Front touch panel: SCE_TOUCH_PORT_FRONT Rear touch panel: SCE_TOUCH_PORT_BACK
    pData Buffer to receive touch data
    Number of buffers to receive touch data (1 to 64)
```

Return Values

The number of sets of touch data that were returned to pData is returned. The value is in the range of 1 to nBufs.

If an error occurs, a negative value is returned. For details on the error, refer to "Error Codes."

Description

This function obtains the touch data by polling.

Up to 64 of the most recent sets of touch data are held in the buffers in the touch service, and the sceTouchPeek() function obtains touch data sets of the number specified by the nBufs argument, starting from the current position of the read pointer, and without updating the read pointer.

The contents of the buffers are updated by interrupt every time touch data is sampled. For this reason, note that, depending on the timing at which the sceTouchPeek() function is called, the data may be obtained either before or after the buffers are routinely updated at the VSYNC period.

Notes

Differences with Similar Functions

With the sceTouchRead() function, touch data is obtained by blocking, so if the function is called earlier than the sampling period, the latest information is obtained by blocking the thread.

Behavior when this function is called while touch data sampling is not enabled

When this function is called while touch data sampling is not enabled by sceTouchSetSamplingState(), data is obtained with SceTouchData::reportNum as '0'.

See Also

SceTouchData, sceTouchRead()

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