

Reference Manual

Generated by Doxygen 1.6.1

Fri May 21 01:14:30 2010

Contents

1	Class Index	1
1.1	Class List	1
2	File Index	3
2.1	File List	3
3	Class Documentation	5
3.1	SCIP2_SCANNED_DATA Struct Reference	5
3.1.1	Detailed Description	5
3.2	SCIP2_SCANNED_DATA_TRI Struct Reference	6
3.2.1	Detailed Description	6
3.3	SCIP2_SENSOR_PARAM Struct Reference	7
3.3.1	Detailed Description	7
3.4	SCIP2_SENSOR_VERSION Struct Reference	8
3.4.1	Detailed Description	8
4	File Documentation	9
4.1	libscip2awd.h File Reference	9
4.1.1	Detailed Description	9
4.2	libscip2awd_cmd.c File Reference	11
4.2.1	Detailed Description	12
4.2.2	Function Documentation	12
4.2.2.1	Scip2CMD_BM	12
4.2.2.2	Scip2CMD_CR	12
4.2.2.3	Scip2CMD_GS	13
4.2.2.4	Scip2CMD_PP	13
4.2.2.5	Scip2CMD_QT	13
4.2.2.6	Scip2CMD_RS	14
4.2.2.7	Scip2CMD SCIP2	14

4.2.2.8	Scip2CMD_SS	14
4.2.2.9	Scip2CMD_StartMS	14
4.2.2.10	Scip2CMD_StopGS	15
4.2.2.11	Scip2CMD_StopMS	15
4.2.2.12	Scip2CMD_TM	15
4.2.2.13	Scip2CMD_VV	16
4.3	libscip2awd_cmd.h File Reference	17
4.3.1	Detailed Description	18
4.3.2	Typedef Documentation	19
4.3.2.1	S2Param_t	19
4.3.2.2	S2Ver_t	19
4.3.3	Function Documentation	19
4.3.3.1	Scip2CMD_BM	19
4.3.3.2	Scip2CMD_CR	19
4.3.3.3	Scip2CMD_GS	19
4.3.3.4	Scip2CMD_PP	20
4.3.3.5	Scip2CMD_QT	20
4.3.3.6	Scip2CMD_RS	20
4.3.3.7	Scip2CMD SCIP2	20
4.3.3.8	Scip2CMD_SS	21
4.3.3.9	Scip2CMD_StartMS	21
4.3.3.10	Scip2CMD_StopGS	21
4.3.3.11	Scip2CMD_StopMS	22
4.3.3.12	Scip2CMD_TM	22
4.3.3.13	Scip2CMD_VV	22
4.4	libscip2awd_dbuffer.c File Reference	23
4.4.1	Detailed Description	24
4.4.2	Function Documentation	24
4.4.2.1	S2Sdd_Begin	24
4.4.2.2	S2Sdd_Dest	24
4.4.2.3	S2Sdd_End	24
4.4.2.4	S2Sdd_Init	24
4.4.2.5	S2Sdd_RecvData	25
4.4.2.6	S2Sdd_RecvDataCont	25
4.4.2.7	S2Sdd_StopThread	25
4.5	libscip2awd_dbuffer.h File Reference	26

4.5.1	Detailed Description	27
4.5.2	Typedef Documentation	27
4.5.2.1	S2Scan_t	27
4.5.2.2	S2Sdd_t	27
4.5.3	Function Documentation	27
4.5.3.1	S2Sdd_Begin	27
4.5.3.2	S2Sdd_Dest	28
4.5.3.3	S2Sdd_End	28
4.5.3.4	S2Sdd_Init	28
4.5.3.5	S2Sdd_RecvData	28
4.5.3.6	S2Sdd_RecvDataCont	28
4.5.3.7	S2Sdd_StopThread	28
4.6	libscip2awd_test.c File Reference	29
4.6.1	Detailed Description	29
4.6.2	Function Documentation	29
4.6.2.1	ctrlc	29
4.6.2.2	main	30
4.6.3	Variable Documentation	30
4.6.3.1	gShutoff	30

Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

SCIP2_SCANNED_DATA	5
SCIP2_SCANNED_DATA_TRI	6
SCIP2_SENSOR_PARAM	7
SCIP2_SENSOR_VERSION	8

Chapter 2

File Index

2.1 File List

Here is a list of all documented files with brief descriptions:

libscip2awd.h (Library for Sokuiki-Sensor "URG")	9
libscip2awd_base.h	??
libscip2awd_cmd.c (Library for Sokuiki-Sensor "URG")	11
libscip2awd_cmd.h (Library for Sokuiki-Sensor "URG")	17
libscip2awd_dbuffer.c (Library for Sokuiki-Sensor "URG")	23
libscip2awd_dbuffer.h (Library for Sokuiki-Sensor "URG")	26
libscip2awd_test.c (Test program for libscip2)	29

Chapter 3

Class Documentation

3.1 SCIP2_SCANNED_DATA Struct Reference

```
#include <libscip2awd_dbuffer.h>
```

Public Attributes

- int **start**
- int **end**
- int **group**
- int **cull**
- int **size**
- int **num**
- int **memsize**
- unsigned long **time**
- int **error**
- pthread_mutex_t **mutex**
- S2Port * **port**
- unsigned long * **data**
- S2EncType **enc**

3.1.1 Detailed Description

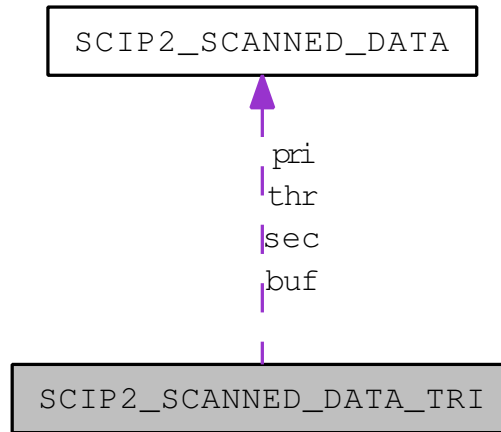
Buffer structure for scanned data

The documentation for this struct was generated from the following file:

- [libscip2awd_dbuffer.h](#)

3.2 SCIP2_SCANNED_DATA_TRI Struct Reference

#include <libscip2awd_dbuffer.h> Collaboration diagram for SCIP2_SCANNED_DATA_TRI:



Public Attributes

- `S2Scan_t * pri`
- `S2Scan_t * sec`
- `S2Scan_t * thr`
- `S2Scan_t buf [3]`
- `int update`
- `pthread_mutex_t mutexr`
- `pthread_mutex_t mutexw`
- `pthread_t thread`
- `int nbuf`

3.2.1 Detailed Description

Multi buffer structure for scanned data

The documentation for this struct was generated from the following file:

- [libscip2awd_dbuffer.h](#)

3.3 SCIP2_SENSOR_PARAM Struct Reference

```
#include <libscip2awd_cmd.h>
```

Public Attributes

- char **model** [SCIP2_MAX_LENGTH]
- int **dist_min**
- int **dist_max**
- int **step_resolution**
- int **step_min**
- int **step_max**
- int **step_front**
- int **revolution**

3.3.1 Detailed Description

Structure of PP command

The documentation for this struct was generated from the following file:

- [libscip2awd_cmd.h](#)

3.4 SCIP2_SENSOR_VERSION Struct Reference

```
#include <libscip2awd_cmd.h>
```

Public Attributes

- char **vender** [SCIP2_MAX_LENGTH]
- char **product** [SCIP2_MAX_LENGTH]
- char **firmware** [SCIP2_MAX_LENGTH]
- char **protocol** [SCIP2_MAX_LENGTH]
- char **serialno** [SCIP2_MAX_LENGTH]

3.4.1 Detailed Description

Structure of VV command

The documentation for this struct was generated from the following file:

- [libscip2awd_cmd.h](#)

Chapter 4

File Documentation

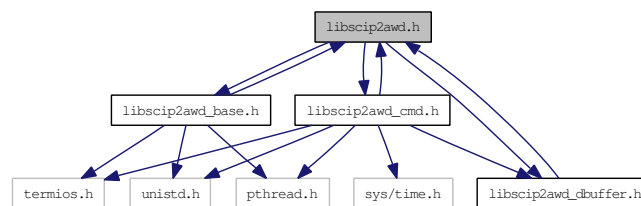
4.1 libscip2awd.h File Reference

Library for Sokuiki-Sensor "URG". #include "libscip2awd_base.h"

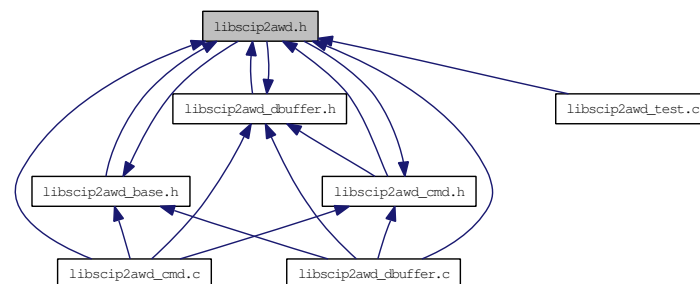
#include "libscip2awd_cmd.h"

#include "libscip2awd_dbuffer.h"

Include dependency graph for libscip2awd.h:



This graph shows which files directly or indirectly include this file:



4.1.1 Detailed Description

Library for Sokuiki-Sensor "URG".

Author:

Atsushi WATANEBE <atusi_w@roboken.esys.tsukuba.ac.jp> <atusi_w@doramanjyu.com>

4.2 libscip2awd_cmd.c File Reference

Library for Sokuiki-Sensor "URG". #include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <unistd.h>

#include <sys/time.h>

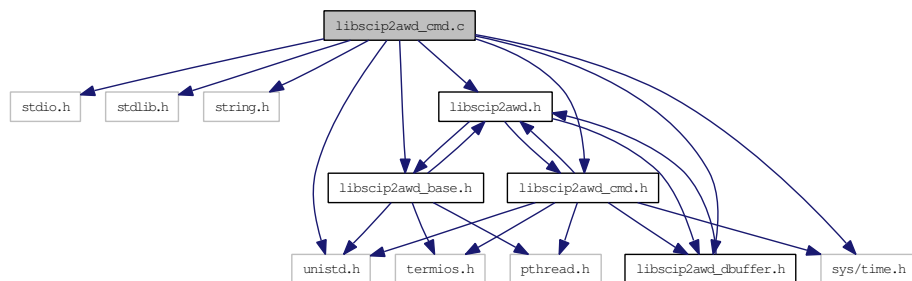
#include "libscip2awd.h"

#include "libscip2awd_base.h"

#include "libscip2awd_cmd.h"

#include "libscip2awd_dbuffer.h"

Include dependency graph for libscip2awd_cmd.c:



Functions

- int [Scip2CMD SCIP2](#) (S2Port *apPort)
Switch to SCIP2.0 mode.
- int [Scip2CMD SS](#) (S2Port *apPort, const speed_t acBitrate)
Change Device's Bitrate.
- int [Scip2CMD BM](#) (S2Port *apPort)
Laser ON.
- int [Scip2CMD QT](#) (S2Port *apPort)
Laser OFF.
- int [Scip2CMD GS](#) (S2Port *apPort, int aStart, int aEnd, int aGroup, S2Sdd_t *aData, const S2EncType acEnc)
Start getting scanned data.
- int [Scip2CMD StopGS](#) (S2Port *apPort, S2Sdd_t *aData)
Stop GS scanning.
- int [Scip2CMD StartMS](#) (S2Port *apPort, int aStart, int aEnd, int aGroup, int aCull, int aNum, S2Sdd_t *aData, const S2EncType acEnc)

Start getting scanned data.

- int `Scip2CMD_StopMS` (S2Port *apPort, S2Sdd_t *aData)
Stop MS scanning.
- int `Scip2CMD_TM` (S2Port *apPort, struct timeval *apTime)
Get time of device.
- int `Scip2CMD_CR` (S2Port *apPort, const int acDeboost)
Set rotating speed.
- int `Scip2CMD_VV` (S2Port *apPort, S2Ver_t *apVer)
Get version info.
- int `Scip2CMD_PP` (S2Port *apPort, S2Param_t *apParam)
Get param info.
- int `Scip2CMD_RS` (S2Port *apPort)
Reset Device.

4.2.1 Detailed Description

Library for Sokuiki-Sensor "URG".

Author:

Atsushi WATANEBE <atusi_w@roboken.esys.tsukuba.ac.jp> <atusi_w@doramanjyu.com>

4.2.2 Function Documentation

4.2.2.1 int Scip2CMD_BM (S2Port * apPort)

Laser ON.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

failed: false, succeeded: true

4.2.2.2 int Scip2CMD_CR (S2Port * apPort, const int acDeboost)

Set rotating speed.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

acDeboost Deboost rate

Returns:

failed: 0, succeeded: time of device

4.2.2.3 int Scip2CMD_GS (S2Port * *apPort*, int *aStart*, int *aEnd*, int *aGroup*, S2Sdd_t * *aData*, const S2EncType *acEnc*)

Start getting scanned data.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

aStart Start step

aEnd End step

aGroup Number of group

**aData* Pointer to buffer structure

acEnc Encode type

Returns:

failed: false, succeeded: true

Attention:

Scip2CMD_StopGS must be called before calling another Scip2CMD function, if the device remains sending data to PC!!

4.2.2.4 int Scip2CMD_PP (S2Port * *apPort*, S2Param_t * *apParam*)

Get param info.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**apParam* Pointer to param structure

Returns:

failed: 0, succeeded: time of device

4.2.2.5 int Scip2CMD_QT (S2Port * *apPort*)

Laser OFF.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

failed: false, succeeded: true

4.2.2.6 int Scip2CMD_RS (S2Port * *apPort*)

Reset Device.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

failed: false, succeeded: true

4.2.2.7 int Scip2CMD SCIP2 (S2Port * *apPort*)

Switch to SCIP2.0 mode.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

false: failed, true: succeeded

4.2.2.8 int Scip2CMD_SS (S2Port * *apPort*, const speed_t *acBitrate*)

Change Device's Bitrate.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

acBitrate Bitrate

Returns:

failed: false, succeeded: true

4.2.2.9 int Scip2CMD_StartMS (S2Port * *apPort*, int *aStart*, int *aEnd*, int *aGroup*, int *aCull*, int *aNum*, S2Sdd_t * *aData*, const S2EncType *acEnc*)

Start getting scanned data.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

aStart Start step

aEnd End step

aGroup Number of group

aCull Culling clearance

aNum Number of scan

**aData* Pointer to buffer structure

acEnc Encode type

Returns:

failed: false, succeeded: true

Attention:

Scip2CMD_StopMS must be called before calling another Scip2CMD function, if the device remains sending data to PC!!

4.2.2.10 int Scip2CMD_StopGS (S2Port * *apPort*, S2Sdd_t * *aData*)

Stop GS scanning.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**aData* Pointer to buffer structure

Returns:

failed: false, succeeded: true

4.2.2.11 int Scip2CMD_StopMS (S2Port * *apPort*, S2Sdd_t * *aData*)

Stop MS scanning.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**aData* Pointer to buffer structure

Returns:

failed: false, succeeded: true

4.2.2.12 int Scip2CMD_TM (S2Port * *apPort*, struct timeval * *apTime*)

Get time of device.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**apTime* Start time of device

Returns:

failed: 0, succeeded: 1

4.2.2.13 int Scip2CMD_VV (S2Port * *apPort*, S2Ver_t * *apVer*)

Get version info.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**apVer* Pointer to version structure

Returns:

failed: 0, succeeded: time of device

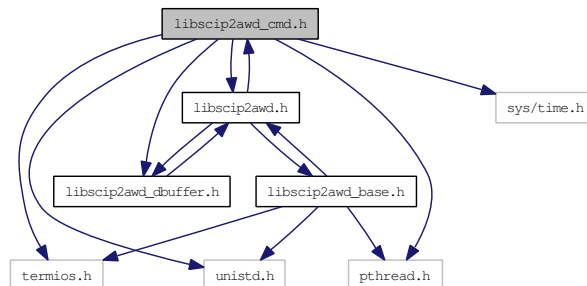
4.3 libscip2awd_cmd.h File Reference

```

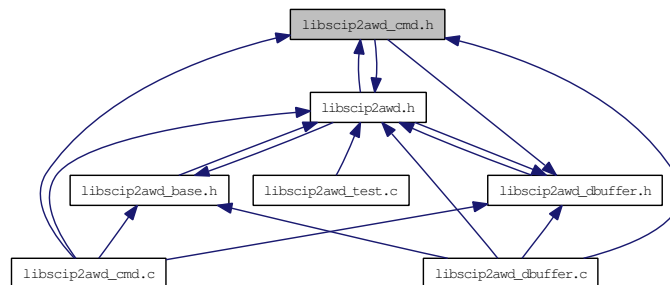
Library for Sokuiki-Sensor "URG". #include <termios.h>
#include <unistd.h>
#include <pthread.h>
#include <sys/time.h>
#include "libscip2awd.h"
#include "libscip2awd_dbuffer.h"

```

Include dependency graph for libscip2awd_cmd.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct [SCIP2_SENSOR_VERSION](#)
- struct [SCIP2_SENSOR_PARAM](#)

Typedefs

- typedef struct [SCIP2_SENSOR_VERSION](#) [S2Ver_t](#)
- typedef struct [SCIP2_SENSOR_PARAM](#) [S2Param_t](#)

Functions

- int [Scip2CMD SCIP2](#) (S2Port *apPort)

Switch to SCIP2.0 mode.

- int [Scip2CMD_SS](#) (S2Port *apPort, const speed_t acBitrate)
Change Device's Bitrate.
- int [Scip2CMD_BM](#) (S2Port *apPort)
Laser ON.
- int [Scip2CMD_QT](#) (S2Port *apPort)
Laser OFF.
- int [Scip2CMD_GS](#) (S2Port *apPort, int aStart, int aEnd, int aGroup, [S2Sdd_t](#) *aData, const S2EncType acEnc)
Start getting scanned data.
- int [Scip2CMD_StopGS](#) (S2Port *apPort, [S2Sdd_t](#) *aData)
Stop GS scanning.
- int [Scip2CMD_TM](#) (S2Port *apPort, struct timeval *apTime)
Get time of device.
- int [Scip2CMD_RS](#) (S2Port *apPort)
Reset Device.
- int [Scip2CMD_CR](#) (S2Port *apPort, const int acDeboost)
Set rotating speed.
- int [Scip2CMD_StopMS](#) (S2Port *apPort, [S2Sdd_t](#) *aData)
Stop MS scanning.
- int [Scip2CMD_StartMS](#) (S2Port *apPort, int aStart, int aEnd, int aGroup, int aCull, int aNum, [S2Sdd_t](#) *aData, const S2EncType acEnc)
Start getting scanned data.
- int [Scip2CMD_VV](#) (S2Port *apPort, [S2Ver_t](#) *apVer)
Get version info.
- int [Scip2CMD_PP](#) (S2Port *apPort, [S2Param_t](#) *apParam)
Get param info.

4.3.1 Detailed Description

Library for Sokuiki-Sensor "URG".

Author:

Atsushi WATANEBE <atusi_w@roboken.esys.tsukuba.ac.jp> <atusi_w@doramanjyu.com>

4.3.2 Typedef Documentation

4.3.2.1 typedef struct SCIP2_SENSOR_PARAM S2Param_t

Structure of PP command

4.3.2.2 typedef struct SCIP2_SENSOR_VERSION S2Ver_t

Structure of VV command

4.3.3 Function Documentation

4.3.3.1 int Scip2CMD_BM (S2Port * *apPort*)

Laser ON.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

failed: false, succeeded: true

4.3.3.2 int Scip2CMD_CR (S2Port * *apPort*, const int *acDeboost*)

Set rotating speed.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

acDeboost Deboost rate

Returns:

failed: 0, succeeded: time of device

4.3.3.3 int Scip2CMD_GS (S2Port * *apPort*, int *aStart*, int *aEnd*, int *aGroup*, S2Sdd_t * *aData*, const S2EncType *acEnc*)

Start getting scanned data.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

aStart Start step

aEnd End step

aGroup Number of group

**aData* Pointer to buffer structure

acEnc Encode type

Returns:

failed: false, succeeded: true

Attention:

Scip2CMD_StopGS must be called before calling another Scip2CMD function, if the device remains sending data to PC!!

4.3.3.4 int Scip2CMD_PP (S2Port * *apPort*, S2Param_t * *apParam*)

Get param info.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**apParam* Pointer to param structure

Returns:

failed: 0, succeeded: time of device

4.3.3.5 int Scip2CMD_QT (S2Port * *apPort*)

Laser OFF.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

failed: false, succeeded: true

4.3.3.6 int Scip2CMD_RS (S2Port * *apPort*)

Reset Device.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

failed: false, succeeded: true

4.3.3.7 int Scip2CMD SCIP2 (S2Port * *apPort*)

Switch to SCIP2.0 mode.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

Returns:

false: failed, true: succeeded

4.3.3.8 int Scip2CMD_SS (S2Port * *apPort*, const speed_t *acBitrate*)

Change Device's Bitrate.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port
acBitrate Bitrate

Returns:

failed: false, succeeded: true

4.3.3.9 int Scip2CMD_StartMS (S2Port * *apPort*, int *aStart*, int *aEnd*, int *aGroup*, int *aCull*, int *aNum*, S2Sdd_t * *aData*, const S2EncType *acEnc*)

Start getting scanned data.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port
aStart Start step
aEnd End step
aGroup Number of group
aCull Culling clearance
aNum Number of scan
**aData* Pointer to buffer structure
acEnc Encode type

Returns:

failed: false, succeeded: true

Attention:

Scip2CMD_StopMS must be called before calling another Scip2CMD function, if the device remains sending data to PC!!

4.3.3.10 int Scip2CMD_StopGS (S2Port * *apPort*, S2Sdd_t * *aData*)

Stop GS scanning.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port
**aData* Pointer to buffer structure

Returns:

failed: false, succeeded: true

4.3.3.11 int Scip2CMD_StopMS (S2Port * *apPort*, S2Sdd_t * *aData*)

Stop MS scanning.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**aData* Pointer to buffer structure

Returns:

failed: false, succeeded: true

4.3.3.12 int Scip2CMD_TM (S2Port * *apPort*, struct timeval * *apTime*)

Get time of device.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**apTime* Start time of device

Returns:

failed: 0, succeeded: 1

4.3.3.13 int Scip2CMD_VV (S2Port * *apPort*, S2Ver_t * *apVer*)

Get version info.

Parameters:

**apPort* Pointer to SCIP2.0 Device Port

**apVer* Pointer to version structure

Returns:

failed: 0, succeeded: time of device

4.4 libscip2awd_dbuffer.c File Reference

Library for Sokuiki-Sensor "URG". #include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <unistd.h>

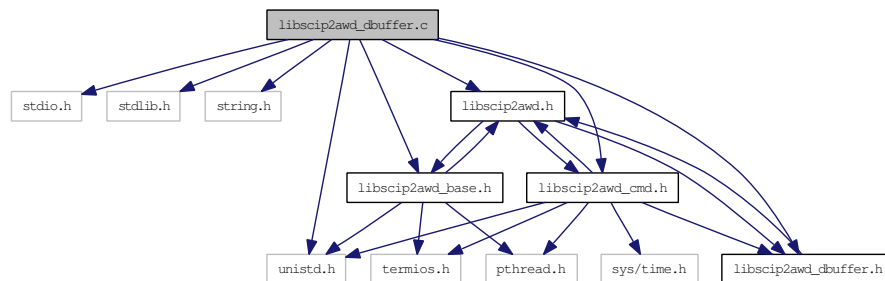
#include "libscip2awd.h"

#include "libscip2awd_base.h"

#include "libscip2awd_cmd.h"

#include "libscip2awd_dbuffer.h"

Include dependency graph for libscip2awd_dbuffer.c:



Functions

- void [S2Sdd_Init](#) (S2Sdd_t *aData)
Initialize dual buffer structure.
- void [S2Sdd_Dest](#) (S2Sdd_t *aData)
Destruct dual buffer structure.
- int [S2Sdd_Begin](#) (S2Sdd_t *aData, S2Scan_t **aScan)
Start using Data (Non-Blocking).
- void [S2Sdd_End](#) (S2Sdd_t *aData)
End using Data.
- void [S2Sdd_StopThread](#) (S2Sdd_t *aData)
Stop thread which reads data of MS/GS command.
- void * [S2Sdd_RecvData](#) (void *aArg)
Get Scanned data.
- void * [S2Sdd_RecvDataCont](#) (void *aArg)
Recive scanned data continually.

4.4.1 Detailed Description

Library for Sokuiki-Sensor "URG".

Author:

Atsushi WATANEBE <atusi_w@roboken.esys.tsukuba.ac.jp> <atusi_w@doramanjyu.com>

4.4.2 Function Documentation

4.4.2.1 int S2Sdd_Begin (S2Sdd_t * *aData*, S2Scan_t ** *aScan*)

Start using Data (Non-Blocking).

Parameters:

**aData* Pointer to dual buffer structure
***aScan* Pointer to buffer structure handle

Returns:

failed: NULL, fatal error: -1, succeeded: Pointer to front buffer

4.4.2.2 void S2Sdd_Dest (S2Sdd_t * *aData*)

Destruct dual buffer structure.

Parameters:

**aData* Pointer to dual buffer structure

4.4.2.3 void S2Sdd_End (S2Sdd_t * *aData*)

End using Data.

Parameters:

**aData* Pointer to dual buffer structure

4.4.2.4 void S2Sdd_Init (S2Sdd_t * *aData*)

Initialize dual buffer structure.

Parameters:

**aData* Pointer to dual buffer structure

4.4.2.5 void* S2Sdd_RecvData (void * *aArg*)

Get Scanned data.

Parameters:

**aArg* Pointer to dual buffer structure

4.4.2.6 void* S2Sdd_RecvDataCont (void * *aArg*)

Recive scanned data continually.

Parameters:

**aArg* Pointer to dual buffer structure

4.4.2.7 void S2Sdd_StopThread (S2Sdd_t * *aData*)

Stop thread which reads data of MS/GS command.

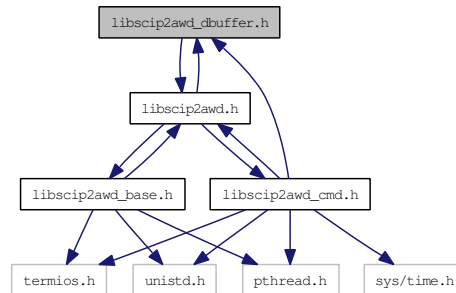
Parameters:

**aData* Pointer to buffer structure

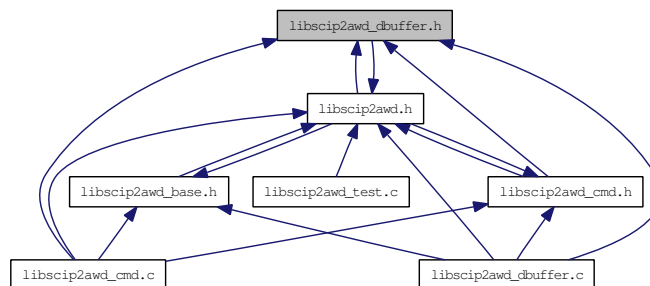
4.5 libscip2awd_dbuffer.h File Reference

Library for Sokuiki-Sensor "URG". #include "libscip2awd.h"

Include dependency graph for libscip2awd_dbuffer.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct [SCIP2_SCANNED_DATA](#)
- struct [SCIP2_SCANNED_DATA_TRI](#)

Typedefs

- typedef struct [SCIP2_SCANNED_DATA](#) [S2Scan_t](#)
- typedef struct [SCIP2_SCANNED_DATA_TRI](#) [S2Sdd_t](#)

Functions

- void * [S2Sdd_RecvData](#) (void *aArg)
Get Scanned data.
- void [S2Sdd_End](#) ([S2Sdd_t](#) *aData)
End using Data.
- int [S2Sdd_Begin](#) ([S2Sdd_t](#) *aData, [S2Scan_t](#) **aScan)
Start using Data (Non-Blocking).

- void [S2Sdd_Dest](#) (S2Sdd_t *aData)
Destruct dual buffer structure.
- void [S2Sdd_Init](#) (S2Sdd_t *aData)
Initialize dual buffer structure.
- void * [S2Sdd_RecvDataCont](#) (void *aArg)
Recive scanned data continually.
- void [S2Sdd_StopThread](#) (S2Sdd_t *aData)
Stop thread which reads data of MS/GS command.

4.5.1 Detailed Description

Library for Sokuiki-Sensor "URG".

Author:

Atsushi WATANEBE <atusi_w@roboken.esys.tsukuba.ac.jp> <atusi_w@doramanjyu.com>

4.5.2 Typedef Documentation

4.5.2.1 typedef struct SCIP2_SCANNED_DATA S2Scan_t

Buffer structure for scanned data

4.5.2.2 typedef struct SCIP2_SCANNED_DATA_TRI S2Sdd_t

Multi buffer structure for scanned data

4.5.3 Function Documentation

4.5.3.1 int S2Sdd_Begin (S2Sdd_t * aData, S2Scan_t ** aScan)

Start using Data (Non-Blocking).

Parameters:

- *aData* Pointer to dual buffer structure
- **aScan* Pointer to buffer structure handle

Returns:

failed: NULL, fatal error: -1, succeeded: Pointer to front buffer

4.5.3.2 void S2Sdd_Dest (S2Sdd_t * *aData*)

Destruct dual buffer structure.

Parameters:

**aData* Pointer to dual buffer structure

4.5.3.3 void S2Sdd_End (S2Sdd_t * *aData*)

End using Data.

Parameters:

**aData* Pointer to dual buffer structure

4.5.3.4 void S2Sdd_Init (S2Sdd_t * *aData*)

Initialize dual buffer structure.

Parameters:

**aData* Pointer to dual buffer structure

4.5.3.5 void* S2Sdd_RecvData (void * *aArg*)

Get Scanned data.

Parameters:

**aArg* Pointer to dual buffer structure

4.5.3.6 void* S2Sdd_RecvDataCont (void * *aArg*)

Recive scanned data continually.

Parameters:

**aArg* Pointer to dual buffer structure

4.5.3.7 void S2Sdd_StopThread (S2Sdd_t * *aData*)

Stop thread which reads data of MS/GS command.

Parameters:

**aData* Pointer to buffer structure

4.6 libscip2awd_test.c File Reference

Test program for libscip2. #include <stdio.h>

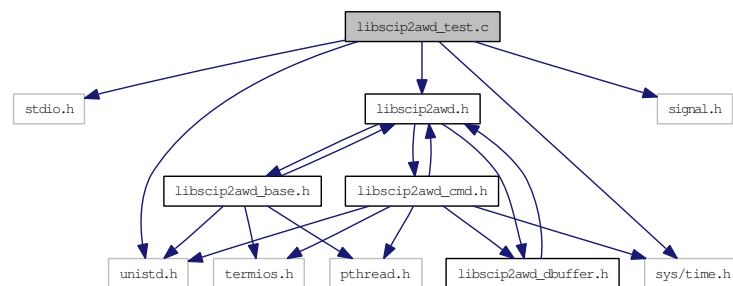
#include <unistd.h>

#include <sys/time.h>

#include <signal.h>

#include "libscip2awd.h"

Include dependency graph for libscip2awd_test.c:



Functions

- void `ctrlc` (int aN)
Ctrl+C trap.
- int `main` (int aArgc, char **appArgv)
Main function.

Variables

- int `gShutoff`

4.6.1 Detailed Description

Test program for libscip2.

Author:

Atsushi WATANEBE <atusi_w@roboken.esys.tsukuba.ac.jp> <atusi_w@doramanjyu.com>

4.6.2 Function Documentation

4.6.2.1 void ctrlc (int aN)

Ctrl+C trap.

Parameters:

aN not used

4.6.2.2 int main (int *aArgc*, char ** *appArgv*)

Main function.

Parameters:

aArgc Number of Arguments

appArgv Arguments

Returns:

failed: 0, succeeded: 1

4.6.3 Variable Documentation**4.6.3.1 int gShutoff**

Flag

Index

- ctrlc
 - libscip2awd_test.c, 29
- gShutoff
 - libscip2awd_test.c, 30
- libscip2awd.h, 9
- libscip2awd_cmd.c, 11
 - Scip2CMD_BM, 12
 - Scip2CMD_CR, 12
 - Scip2CMD_GS, 13
 - Scip2CMD_PP, 13
 - Scip2CMD_QT, 13
 - Scip2CMD_RS, 13
 - Scip2CMD SCIP2, 14
 - Scip2CMD_SS, 14
 - Scip2CMD_StartMS, 14
 - Scip2CMD_StopGS, 15
 - Scip2CMD_StopMS, 15
 - Scip2CMD_TM, 15
 - Scip2CMD_VV, 15
- libscip2awd_cmd.h, 17
 - S2Param_t, 19
 - S2Ver_t, 19
 - Scip2CMD_BM, 19
 - Scip2CMD_CR, 19
 - Scip2CMD_GS, 19
 - Scip2CMD_PP, 20
 - Scip2CMD_QT, 20
 - Scip2CMD_RS, 20
 - Scip2CMD SCIP2, 20
 - Scip2CMD_SS, 20
 - Scip2CMD_StartMS, 21
 - Scip2CMD_StopGS, 21
 - Scip2CMD_StopMS, 21
 - Scip2CMD_TM, 22
 - Scip2CMD_VV, 22
- libscip2awd_dbuffer.c, 23
 - S2Sdd_Begin, 24
 - S2Sdd_Dest, 24
 - S2Sdd_End, 24
 - S2Sdd_Init, 24
 - S2Sdd_RecvData, 24
 - S2Sdd_RecvDataCont, 25
 - S2Sdd_StopThread, 25
- libscip2awd_dbuffer.h, 26
 - S2Scan_t, 27
 - S2Sdd_Begin, 27
 - S2Sdd_Dest, 27
 - S2Sdd_End, 28
 - S2Sdd_Init, 28
 - S2Sdd_RecvData, 28
 - S2Sdd_RecvDataCont, 28
 - S2Sdd_StopThread, 28
 - S2Sdd_t, 27
- libscip2awd_test.c, 29
 - ctrlc, 29
 - gShutoff, 30
 - main, 30
- main
 - libscip2awd_test.c, 30
- S2Param_t
 - libscip2awd_cmd.h, 19
- S2Scan_t
 - libscip2awd_dbuffer.h, 27
- S2Sdd_Begin
 - libscip2awd_dbuffer.c, 24
 - libscip2awd_dbuffer.h, 27
- S2Sdd_Dest
 - libscip2awd_dbuffer.c, 24
 - libscip2awd_dbuffer.h, 27
- S2Sdd_End
 - libscip2awd_dbuffer.c, 24
 - libscip2awd_dbuffer.h, 28
- S2Sdd_Init
 - libscip2awd_dbuffer.c, 24
 - libscip2awd_dbuffer.h, 28
- S2Sdd_RecvData
 - libscip2awd_dbuffer.c, 24
 - libscip2awd_dbuffer.h, 28
- S2Sdd_RecvDataCont
 - libscip2awd_dbuffer.c, 25
 - libscip2awd_dbuffer.h, 28
- S2Sdd_StopThread
 - libscip2awd_dbuffer.c, 25
 - libscip2awd_dbuffer.h, 28
- S2Sdd_t
 - libscip2awd_dbuffer.h, 27

S2Ver_t
 libscip2awd_cmd.h, 19

SCIP2_SCANNED_DATA, 5

SCIP2_SCANNED_DATA_TRI, 6

SCIP2_SENSOR_PARAM, 7

SCIP2_SENSOR_VERSION, 8

Scip2CMD_BM
 libscip2awd_cmd.c, 12
 libscip2awd_cmd.h, 19

Scip2CMD_CR
 libscip2awd_cmd.c, 12
 libscip2awd_cmd.h, 19

Scip2CMD_GS
 libscip2awd_cmd.c, 13
 libscip2awd_cmd.h, 19

Scip2CMD_PP
 libscip2awd_cmd.c, 13
 libscip2awd_cmd.h, 20

Scip2CMD_QT
 libscip2awd_cmd.c, 13
 libscip2awd_cmd.h, 20

Scip2CMD_RS
 libscip2awd_cmd.c, 13
 libscip2awd_cmd.h, 20

Scip2CMD SCIP2
 libscip2awd_cmd.c, 14
 libscip2awd_cmd.h, 20

Scip2CMD_SS
 libscip2awd_cmd.c, 14
 libscip2awd_cmd.h, 20

Scip2CMD_StartMS
 libscip2awd_cmd.c, 14
 libscip2awd_cmd.h, 21

Scip2CMD_StopGS
 libscip2awd_cmd.c, 15
 libscip2awd_cmd.h, 21

Scip2CMD_StopMS
 libscip2awd_cmd.c, 15
 libscip2awd_cmd.h, 21

Scip2CMD_TM
 libscip2awd_cmd.c, 15
 libscip2awd_cmd.h, 22

Scip2CMD_VV
 libscip2awd_cmd.c, 15
 libscip2awd_cmd.h, 22