

# systemview

*User Manual*



**MICROEJ<sup>®</sup>**

Reference: TLT-XXX-MAN-systemview-systemview  
Version: 1.3.1  
Revision: XXX

---

## Confidentiality & Intellectual Property

All rights reserved. Information, technical data and tutorials contained in this document are confidential and proprietary under copyright Law of Industrial Smart Software Technology (IS2T S.A.) operating under the brand name MicroEJ®. Without written permission from IS2T S.A., *copying or sending parts of the document or the entire document by any means to third parties is not permitted*. Granted authorizations for using parts of the document or the entire document do not mean IS2T S.A. gives public full access rights.

The information contained herein is not warranted to be error-free. IS2T® and MicroEJ® and all relative logos are trademarks or registered trademarks of IS2T S.A. in France and other Countries.

Java™ is Sun Microsystems' trademark for a technology for developing application software and deploying it in cross-platform, networked environments. When it is used in this documentation without adding the ™ symbol, it includes implementations of the technology by companies other than Sun.

Java™, all Java-based marks and all related logos are trademarks or registered trademarks of Sun Microsystems Inc, in the United States and other Countries.

Other trademarks are proprietary of their authors.

---

---

# Table of Contents

1. Data Structure Documentation .....	1
1.1. SEGGER_BUFFER_DESC struct Reference .....	1
1.1.1. Data Fields .....	1
1.1.2. Field Documentation .....	1
1.2. SEGGER_CACHE_CONFIG struct Reference .....	1
1.2.1. Data Fields .....	1
1.2.2. Field Documentation .....	1
1.3. SEGGER_PRINTF_API struct Reference .....	1
1.3.1. Data Fields .....	1
1.3.2. Field Documentation .....	2
1.4. SEGGER_PRINTF_FORMATTER struct Reference .....	2
1.4.1. Data Fields .....	2
1.4.2. Field Documentation .....	2
1.5. SEGGER_RTT_BUFFER_DOWN struct Reference .....	2
1.5.1. Data Fields .....	2
1.5.2. Field Documentation .....	2
1.6. SEGGER_RTT_BUFFER_UP struct Reference .....	2
1.6.1. Data Fields .....	2
1.6.2. Field Documentation .....	3
1.7. SEGGER_RTT_CB struct Reference .....	3
1.7.1. Data Fields .....	3
1.7.2. Field Documentation .....	3
1.8. SEGGER_SNPRINTF_CONTEXT_struct Reference .....	3
1.8.1. Data Fields .....	3
1.8.2. Field Documentation .....	3
1.9. SEGGER_SYSVIEW_GLOBALS struct Reference .....	3
1.9.1. Data Fields .....	3
1.9.2. Field Documentation .....	4
1.10. SEGGER_SYSVIEW_MODULE_STRUCT struct Reference .....	4
1.10.1. Data Fields .....	4
1.10.2. Field Documentation .....	4
1.11. SEGGER_SYSVIEW_OS_API struct Reference .....	4
1.11.1. Data Fields .....	4
1.11.2. Field Documentation .....	5
1.12. SEGGER_SYSVIEW_PRINTF_DESC struct Reference .....	5
1.12.1. Data Fields .....	5
1.12.2. Field Documentation .....	5
1.13. SEGGER_SYSVIEW_TASKINFO struct Reference .....	5
1.13.1. Data Fields .....	5
1.13.2. Field Documentation .....	5
2. File Documentation .....	6
2.1. Global.h File Reference .....	6
2.1.1. Macros .....	6
2.2. SEGGER.h File Reference .....	6

2.2.1. Data Structures .....	6
2.2.2. Macros .....	7
2.2.3. Typedefs .....	7
2.2.4. Functions .....	7
2.3. SEGGER_RTT.h File Reference .....	8
2.3.1. Data Structures .....	8
2.3.2. Macros .....	8
2.3.3. Variables .....	10
2.3.4. Functions .....	10
2.4. SEGGER_RTT_configuration.h File Reference .....	11
2.4.1. Macros .....	11
2.5. SEGGER_SYSVIEW.h File Reference .....	12
2.5.1. Data Structures .....	12
2.5.2. Macros .....	12
2.5.3. Typedefs .....	15
2.5.4. Functions .....	15
2.6. SEGGER_SYSVIEW_ConfDefaults.h File Reference .....	18
2.6.1. Macros .....	18
2.7. SEGGER_SYSVIEW_Configuration.h File Reference .....	19
2.7.1. Macros .....	19
2.8. SEGGER_SYSVIEW_Int.h File Reference .....	19
2.8.1. Enumerations .....	20
2.9. SEGGER_RTT.c File Reference .....	20
2.9.1. Macros .....	20
2.9.2. Variables .....	21
2.9.3. Functions .....	21
2.10. SEGGER_SYSVIEW.c File Reference .....	23
2.10.1. Data Structures .....	23
2.10.2. Macros .....	23
2.10.3. Variables .....	24
2.10.4. Functions .....	24

---

# Chapter 1. Data Structure Documentation

## 1.1. SEGGER\_BUFFER\_DESC struct Reference

### 1.1.1. Data Fields

- `char * pBuffer`
- `int BufferSize`
- `int Cnt`

### 1.1.2. Field Documentation

## 1.2. SEGGER\_CACHE\_CONFIG struct Reference

### 1.2.1. Data Fields

- `int CacheLineSize`
- `void(* pfDMB)(void)`
- `void(* pfClean)(void *p, unsigned NumBytes)`
- `void(* pfInvalidate)(void *p, unsigned NumBytes)`

### 1.2.2. Field Documentation

## 1.3. SEGGER\_PRINTF\_API struct Reference

### 1.3.1. Data Fields

- `void(* pfStoreChar)(SEGGER_BUFFER_DESC *pBufferDesc, SEGGER_SNPRINTF_CONTEXT *pContext, char c)`
- `int(* pfPrintUnsigned)(SEGGER_BUFFER_DESC *pBufferDesc, SEGGER_SNPRINTF_CONTEXT *pContext, U32 v, unsigned Base, char Flags, int Width, int Precision)`
- `int(* pfPrintInt)(SEGGER_BUFFER_DESC *pBufferDesc, SEGGER_SNPRINTF_CONTEXT *pContext, I32 v, unsigned Base, char Flags, int Width, int Precision)`

### 1.3.2. Field Documentation

## 1.4. SEGGER\_PRINTF\_FORMATTER struct Reference

### 1.4.1. Data Fields

- struct SEGGER\_PRINTF\_FORMATTER \* pNext
- SEGGER\_pFormatter pfFormatter
- char Specifier

### 1.4.2. Field Documentation

## 1.5. SEGGER\_RTT\_BUFFER\_DOWN struct Reference

### 1.5.1. Data Fields

- const char \* sName
- char \* pBuffer
- unsigned SizeOfBuffer
- volatile unsigned WrOff
- unsigned RdOff
- unsigned Flags

### 1.5.2. Field Documentation

## 1.6. SEGGER\_RTT\_BUFFER\_UP struct Reference

### 1.6.1. Data Fields

- const char \* sName
- char \* pBuffer
- unsigned SizeOfBuffer
- unsigned WrOff
- volatile unsigned RdOff

- unsigned Flags

### 1.6.2. Field Documentation

## 1.7. SEGGER\_RTT\_CB struct Reference

### 1.7.1. Data Fields

- char acID[16]
- int MaxNumUpBuffers
- int MaxNumDownBuffers
- SEGGER\_RTT\_BUFFER\_UP aUp[SEGGER\_RTT\_MAX\_NUM\_UP\_BUFFERS]
- SEGGER\_RTT\_BUFFER\_DOWN aDown[SEGGER\_RTT\_MAX\_NUM\_DOWN\_BUFFERS]

### 1.7.2. Field Documentation

## 1.8. SEGGER\_SNPRINTF\_CONTEXT\_struct struct Reference

### 1.8.1. Data Fields

- void \* pContext
- SEGGER\_BUFFER\_DESC \* pBufferDesc
- void(\* pfFlush)(SEGGER\_SNPRINTF\_CONTEXT \*pContext)

### 1.8.2. Field Documentation

## 1.9. SEGGER\_SYSVIEW\_GLOBALS struct Reference

### 1.9.1. Data Fields

- U8 EnableState
- U8 UpChannel
- U8 RecursionCnt

- U32 SysFreq
- U32 CPUFreq
- U32 LastTxTimeStamp
- U32 RAMBaseAddress
- U32 DropCount
- U8 DownChannel
- U32 DisabledEvents
- const SEGGER\_SYSVIEW\_OS\_API \* pOSAPI
- SEGGER\_SYSVIEW\_SEND\_SYS\_DESC\_FUNC \* pfSendSysDesc
- U32 MicroJVMTaskId
- U32 MicroJVMTaskPriority
- U32 CurrentMicroEJTaskId

## 1.9.2. Field Documentation

# 1.10. SEGGER\_SYSVIEW\_MODULE\_STRUCT struct Reference

## 1.10.1. Data Fields

- const char \* sModule
- U32 NumEvents
- U32 EventOffset
- void(\* pfSendModuleDesc)(void)
- SEGGER\_SYSVIEW\_MODULE \* pNext

## 1.10.2. Field Documentation

# 1.11. SEGGER\_SYSVIEW\_OS\_API struct Reference

## 1.11.1. Data Fields

- U64(\* pfGetTime)(void)

- void(\* pfSendTaskList)(void)

## 1.11.2. Field Documentation

# 1.12. SEGGER\_SYSVIEW\_PRINTF\_DESC struct Reference

## 1.12.1. Data Fields

- U8 \* pBuffer
- U8 \* pPayload
- U8 \* pPayloadStart
- U32 Options
- unsigned Cnt

## 1.12.2. Field Documentation

# 1.13. SEGGER\_SYSVIEW\_TASKINFO struct Reference

## 1.13.1. Data Fields

- U32 TaskID
- const char \* sName
- U32 Prio
- U32 StackBase
- U32 StackSize
- U32 IsMicroEJThread

## 1.13.2. Field Documentation

---

# Chapter 2. File Documentation

## 2.1. Global.h File Reference

### 2.1.1. Macros

- #define U8 unsigned char
- #define U16 unsigned short
- #define U32 unsigned long
- #define I8 signed char
- #define I16 signed short
- #define I32 signed long
- #define U64 unsigned long long
- #define I64 signed long long
- #define U64\_C x##ULL

### Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/inc/Global.h

## 2.2. SEGGER.h File Reference

```
#include <stdarg.h>
```

```
#include "Global.h"
```

### 2.2.1. Data Structures

- struct SEGGER\_BUFFER\_DESC
- struct SEGGER\_CACHE\_CONFIG
- struct SEGGER\_SNPRINTF\_CONTEXT\_struct
- struct SEGGER\_PRINTF\_API

- struct SEGGER\_PRINTF\_FORMATTER

## 2.2.2. Macros

- #define INLINE
- #define SEGGER\_COUNTOF (sizeof((a))/sizeof((a)[0]))
- #define SEGGER\_MIN (((a) < (b)) ? (a) : (b))
- #define SEGGER\_MAX (((a) > (b)) ? (a) : (b))
- #define SEGGER\_USE\_PARA (void)Para
- #define SEGGER\_PRINTF\_FLAG\_ADJLEFT (1 << 0)
- #define SEGGER\_PRINTF\_FLAG\_SIGNFORCE (1 << 1)
- #define SEGGER\_PRINTF\_FLAG\_SIGNSPACE (1 << 2)
- #define SEGGER\_PRINTF\_FLAG\_PRECEED (1 << 3)
- #define SEGGER\_PRINTF\_FLAG\_ZEROPAD (1 << 4)
- #define SEGGER\_PRINTF\_FLAG\_NEGATIVE (1 << 5)

## 2.2.3. Typedefs

- typedef struct SEGGER\_SNPRINTF\_CONTEXT\_struct SEGGER\_SNPRINTF\_CONTEXT
- typedef void(\* SEGGER\_pFormatter
- typedef struct SEGGER\_PRINTF\_FORMATTER SEGGER\_PRINTF\_FORMATTER

## 2.2.4. Functions

- void SEGGER\_ARM\_memcpy ( void \* pDest, const void \* pSrc, int NumBytes)
- void SEGGER\_memcpy ( void \* pDest, const void \* pSrc, int NumBytes)
- void SEGGER\_memxor ( void \* pDest, const void \* pSrc, unsigned NumBytes)
- int SEGGER\_atoi ( const char \* s)
- int SEGGER\_isalnum ( int c)
- int SEGGER\_isalpha ( int c)
- unsigned SEGGER\_strlen ( const char \* s)
- int SEGGER\_tolower ( int c)

- int SEGGER\_strcasecmp ( const char \* sText1, const char \* sText2)
- void SEGGER\_StoreChar ( SEGGER\_BUFFER\_DESC \* pBufferDesc, char c)
- void SEGGER\_PrintUnsigned ( SEGGER\_BUFFER\_DESC \* pBufferDesc, U32 v, unsigned Base, int Precision)
- void SEGGER\_Printf ( SEGGER\_BUFFER\_DESC \* pBufferDesc, I32 v, unsigned Base, int Precision)
- int SEGGER\_snprintf ( char \* pBuffer, int BufferSize, const char \* sFormat, ... )
- int SEGGER\_vsnprintf ( char \* pBuffer, int BufferSize, const char \* sFormat, va\_list ParamList)
- int SEGGER\_vsprintfEx ( SEGGER\_SNPRINTF\_CONTEXT \* pContext, const char \* sFormat, va\_list ParamList)
- int SEGGER\_PRINTF\_AddFormatter ( SEGGER\_PRINTF\_FORMATTER \* pFormatter, SEGGER\_pFormatter pfFormatter, char c)
- void SEGGER\_PRINTF\_AddDoubleFormatter ( void )
- void SEGGER\_PRINTF\_AddIPFormatter ( void )
- void SEGGER\_PRINTF\_AddHTMLFormatter ( void )

## Detailed Description

Definition in file /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/inc/SEGGER.h

## 2.3. SEGGER\_RTT.h File Reference

```
#include "SEGGER_RTT_Configuration.h"
```

### 2.3.1. Data Structures

- struct SEGGER\_RTT\_BUFFER\_UP
- struct SEGGER\_RTT\_BUFFER\_DOWN
- struct SEGGER\_RTT\_CB

### 2.3.2. Macros

- #define SEGGER\_RTT\_HASDATA (\_SEGGER\_RTT.aDown[n].WrOff - \_SEGGER\_RTT.aDown[n].RdOff)

- #define SEGGER\_RTT\_MODE\_NO\_BLOCK\_SKIP (0U)
- #define SEGGER\_RTT\_MODE\_NO\_BLOCK\_TRIM (1U)
- #define SEGGER\_RTT\_MODE\_BLOCK\_IF\_FIFO\_FULL (2U)
- #define SEGGER\_RTT\_MODE\_MASK (3U)
- #define RTT\_CTRL\_RESET "[0m"
- #define RTT\_CTRL\_CLEAR "[2J"
- #define RTT\_CTRL\_TEXT\_BLACK "[2;30m"
- #define RTT\_CTRL\_TEXT\_RED "[2;31m"
- #define RTT\_CTRL\_TEXT\_GREEN "[2;32m"
- #define RTT\_CTRL\_TEXT\_YELLOW "[2;33m"
- #define RTT\_CTRL\_TEXT\_BLUE "[2;34m"
- #define RTT\_CTRL\_TEXT\_MAGENTA "[2;35m"
- #define RTT\_CTRL\_TEXT\_CYAN "[2;36m"
- #define RTT\_CTRL\_TEXT\_WHITE "[2;37m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_BLACK "[1;30m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_RED "[1;31m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_GREEN "[1;32m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_YELLOW "[1;33m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_BLUE "[1;34m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_MAGENTA "[1;35m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_CYAN "[1;36m"
- #define RTT\_CTRL\_TEXT\_BRIGHT\_WHITE "[1;37m"
- #define RTT\_CTRL\_BG\_BLACK "[24;40m"
- #define RTT\_CTRL\_BG\_RED "[24;41m"
- #define RTT\_CTRL\_BG\_GREEN "[24;42m"
- #define RTT\_CTRL\_BG\_YELLOW "[24;43m"
- #define RTT\_CTRL\_BG\_BLUE "[24;44m"
- #define RTT\_CTRL\_BG\_MAGENTA "[24;45m"

- `#define RTT_CTRL_BG_CYAN "[24;46m"`
- `#define RTT_CTRL_BG_WHITE "[24;47m"`
- `#define RTT_CTRL_BG_BRIGHT_BLACK "[4;40m"`
- `#define RTT_CTRL_BG_BRIGHT_RED "[4;41m"`
- `#define RTT_CTRL_BG_BRIGHT_GREEN "[4;42m"`
- `#define RTT_CTRL_BG_BRIGHT_YELLOW "[4;43m"`
- `#define RTT_CTRL_BG_BRIGHT_BLUE "[4;44m"`
- `#define RTT_CTRL_BG_BRIGHT_MAGENTA "[4;45m"`
- `#define RTT_CTRL_BG_BRIGHT_CYAN "[4;46m"`
- `#define RTT_CTRL_BG_BRIGHT_WHITE "[4;47m"`

### 2.3.3. Variables

- `SEGGER_RTT_CB SEGGER_RTT`

### 2.3.4. Functions

- `int SEGGER_RTT_AllocDownBuffer ( const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_AllocUpBuffer ( const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_ConfigUpBuffer ( unsigned BufferIndex, const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_ConfigDownBuffer ( unsigned BufferIndex, const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_GetKey ( void )`
- `unsigned SEGGER_RTT_HasData ( unsigned BufferIndex)`
- `int SEGGER_RTT_HasKey ( void )`
- `void SEGGER_RTT_Init ( void )`
- `unsigned SEGGER_RTT_Read ( unsigned BufferIndex, void * pBuffer, unsigned BufferSize)`
- `unsigned SEGGER_RTT_ReadNoLock ( unsigned BufferIndex, void * pData, unsigned BufferSize)`
- `int SEGGER_RTT_SetNameDownBuffer ( unsigned BufferIndex, const char * sName)`

- int SEGGER\_RTT\_SetNameUpBuffer ( unsigned BufferIndex, const char \* sName)
- int SEGGER\_RTT\_SetFlagsDownBuffer ( unsigned BufferIndex, unsigned Flags)
- int SEGGER\_RTT\_SetFlagsUpBuffer ( unsigned BufferIndex, unsigned Flags)
- int SEGGER\_RTT\_WaitKey ( void )
- unsigned SEGGER\_RTT\_Write ( unsigned BufferIndex, const void \* pBuffer, unsigned NumBytes)
- unsigned SEGGER\_RTT\_WriteNoLock ( unsigned BufferIndex, const void \* pBuffer, unsigned NumBytes)
- unsigned SEGGER\_RTT\_WriteSkipNoLock ( unsigned BufferIndex, const void \* pBuffer, unsigned NumBytes)
- unsigned SEGGER\_RTT\_WriteString ( unsigned BufferIndex, const char \* s)
- void SEGGER\_RTT\_WriteWithOverwriteNoLock ( unsigned BufferIndex, const void \* pBuffer, unsigned NumBytes)
- unsigned SEGGER\_RTT\_PutChar ( unsigned BufferIndex, char c)
- unsigned SEGGER\_RTT\_PutCharSkip ( unsigned BufferIndex, char c)
- unsigned SEGGER\_RTT\_PutCharSkipNoLock ( unsigned BufferIndex, char c)
- int SEGGER\_RTT\_SetTerminal ( char TerminalId)
- int SEGGER\_RTT\_TerminalOut ( char TerminalId, const char \* s)
- int SEGGER\_RTT\_printf ( unsigned BufferIndex, const char \* sFormat, ... )

## Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/inc/SEGGER\_RTT.h

## 2.4. SEGGER\_RTT\_configuration.h File Reference

### 2.4.1. Macros

- #define SEGGER\_RTT\_MAX\_NUM\_UP\_BUFFERS (3)
- #define SEGGER\_RTT\_MAX\_NUM\_DOWN\_BUFFERS (3)
- #define BUFFER\_SIZE\_UP (1024)
- #define BUFFER\_SIZE\_DOWN (16)

- #define SEGGER\_RTT\_PRINTF\_BUFFER\_SIZE (64u)
- #define SEGGER\_RTT\_MODE\_DEFAULT SEGGER\_RTT\_MODE\_NO\_BLOCK\_SKIP
- #define USE\_RTT\_ASM (0)
- #define SEGGER\_RTT\_MEMCPY\_USE\_BYTELOOP 0
- #define SEGGER\_RTT\_MAX\_INTERRUPT\_PRIORITY (0x20)
- #define SEGGER\_RTT\_LOCK
- #define SEGGER\_RTT\_UNLOCK

## Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/inc/SEGGER\_RTT\_configuration.h

## 2.5. SEGGER\_SYSVIEW.h File Reference

```
#include "SEGGER.h"
```

### 2.5.1. Data Structures

- struct SEGGER\_SYSVIEW\_TASKINFO
- struct SEGGER\_SYSVIEW\_MODULE\_STRUCT
- struct SEGGER\_SYSVIEW\_OS\_API

### 2.5.2. Macros

- #define SEGGER\_SYSVIEW\_VERSION 21000
- #define SEGGER\_SYSVIEW\_INFO\_SIZE 9
- #define SEGGER\_SYSVIEW\_QUANTA\_U32 5
- #define SEGGER\_SYSVIEW\_LOG (0u)
- #define SEGGER\_SYSVIEW\_WARNING (1u)
- #define SEGGER\_SYSVIEW\_ERROR (2u)
- #define SEGGER\_SYSVIEW\_FLAG\_APPEND (1u << 6)
- #define SEGGER\_SYSVIEW\_PREPARE\_PACKET (p) + 4

- #define SYSVIEW\_EVTID\_NOP 0
- #define SYSVIEW\_EVTID\_OVERFLOW 1
- #define SYSVIEW\_EVTID\_ISR\_ENTER 2
- #define SYSVIEW\_EVTID\_ISR\_EXIT 3
- #define SYSVIEW\_EVTID\_TASK\_START\_EXEC 4
- #define SYSVIEW\_EVTID\_TASK\_STOP\_EXEC 5
- #define SYSVIEW\_EVTID\_TASK\_START\_READY 6
- #define SYSVIEW\_EVTID\_TASK\_STOP\_READY 7
- #define SYSVIEW\_EVTID\_TASK\_CREATE 8
- #define SYSVIEW\_EVTID\_TASK\_INFO 9
- #define SYSVIEW\_EVTID\_TRACE\_START 10
- #define SYSVIEW\_EVTID\_TRACE\_STOP 11
- #define SYSVIEW\_EVTID\_SYSTIME\_CYCLES 12
- #define SYSVIEW\_EVTID\_SYSTIME\_US 13
- #define SYSVIEW\_EVTID\_SYSDESC 14
- #define SYSVIEW\_EVTID\_USER\_START 15
- #define SYSVIEW\_EVTID\_USER\_STOP 16
- #define SYSVIEW\_EVTID\_IDLE 17
- #define SYSVIEW\_EVTID\_ISR\_TO\_SCHEDULER 18
- #define SYSVIEW\_EVTID\_TIMER\_ENTER 19
- #define SYSVIEW\_EVTID\_TIMER\_EXIT 20
- #define SYSVIEW\_EVTID\_STACK\_INFO 21
- #define SYSVIEW\_EVTID\_MODULEDESC 22
- #define SYSVIEW\_EVTID\_INIT 24
- #define SYSVIEW\_EVTID\_NAME\_RESOURCE 25
- #define SYSVIEW\_EVTID\_PRINT\_FORMATTED 26
- #define SYSVIEW\_EVTID\_NUMMODULES 27
- #define SYSVIEW\_EVTID\_END\_CALL 28

- #define SYSVIEW\_EVTID\_TASK\_TERMINATE 29
- #define SYSVIEW\_EVTID\_EX 31
- #define SYSVIEW\_EVTMASK\_NOP (1 << SYSVIEW\_EVTID\_NOP)
- #define SYSVIEW\_EVTMASK\_OVERFLOW (1 << SYSVIEW\_EVTID\_OVERFLOW)
- #define SYSVIEW\_EVTMASK\_ISR\_ENTER (1 << SYSVIEW\_EVTID\_ISR\_ENTER)
- #define SYSVIEW\_EVTMASK\_ISR\_EXIT (1 << SYSVIEW\_EVTID\_ISR\_EXIT)
- #define SYSVIEW\_EVTMASK\_TASK\_START\_EXEC (1 << SYSVIEW\_EVTID\_TASK\_START\_EXEC)
- #define SYSVIEW\_EVTMASK\_TASK\_STOP\_EXEC (1 << SYSVIEW\_EVTID\_TASK\_STOP\_EXEC)
- #define SYSVIEW\_EVTMASK\_TASK\_START\_READY (1 << SYSVIEW\_EVTID\_TASK\_START\_READY)
- #define SYSVIEW\_EVTMASK\_TASK\_STOP\_READY (1 << SYSVIEW\_EVTID\_TASK\_STOP\_READY)
- #define SYSVIEW\_EVTMASK\_TASK\_CREATE (1 << SYSVIEW\_EVTID\_TASK\_CREATE)
- #define SYSVIEW\_EVTMASK\_TASK\_INFO (1 << SYSVIEW\_EVTID\_TASK\_INFO)
- #define SYSVIEW\_EVTMASK\_TRACE\_START (1 << SYSVIEW\_EVTID\_TRACE\_START)
- #define SYSVIEW\_EVTMASK\_TRACE\_STOP (1 << SYSVIEW\_EVTID\_TRACE\_STOP)
- #define SYSVIEW\_EVTMASK\_SYSTIME\_CYCLES (1 << SYSVIEW\_EVTID\_SYSTIME\_CYCLES)
- #define SYSVIEW\_EVTMASK\_SYSTIME\_US (1 << SYSVIEW\_EVTID\_SYSTIME\_US)
- #define SYSVIEW\_EVTMASK\_SYSDESC (1 << SYSVIEW\_EVTID\_SYSDESC)
- #define SYSVIEW\_EVTMASK\_USER\_START (1 << SYSVIEW\_EVTID\_USER\_START)
- #define SYSVIEW\_EVTMASK\_USER\_STOP (1 << SYSVIEW\_EVTID\_USER\_STOP)
- #define SYSVIEW\_EVTMASK\_IDLE (1 << SYSVIEW\_EVTID\_IDLE)
- #define SYSVIEW\_EVTMASK\_ISR\_TO\_SCHEDULER (1 << SYSVIEW\_EVTID\_ISR\_TO\_SCHEDULER)
- #define SYSVIEW\_EVTMASK\_TIMER\_ENTER (1 << SYSVIEW\_EVTID\_TIMER\_ENTER)
- #define SYSVIEW\_EVTMASK\_TIMER\_EXIT (1 << SYSVIEW\_EVTID\_TIMER\_EXIT)
- #define SYSVIEW\_EVTMASK\_STACK\_INFO (1 << SYSVIEW\_EVTID\_STACK\_INFO)
- #define SYSVIEW\_EVTMASK\_MODULEDESC (1 << SYSVIEW\_EVTID\_MODULEDESC)
- #define SYSVIEW\_EVTMASK\_INIT (1 << SYSVIEW\_EVTID\_INIT)
- #define SYSVIEW\_EVTMASK\_NAME\_RESOURCE (1 << SYSVIEW\_EVTID\_NAME\_RESOURCE)
- #define SYSVIEW\_EVTMASK\_PRINT\_FORMATTED (1 << SYSVIEW\_EVTID\_PRINT\_FORMATTED)

- #define SYSVIEW\_EVTMASK\_NUMMODULES (1 << SYSVIEW\_EVTID\_NUMMODULES)
- #define SYSVIEW\_EVTMASK\_END\_CALL (1 << SYSVIEW\_EVTID\_END\_CALL)
- #define SYSVIEW\_EVTMASK\_TASK\_TERMINATE (1 << SYSVIEW\_EVTID\_TASK\_TERMINATE)
- #define SYSVIEW\_EVTMASK\_EX (1 << SYSVIEW\_EVTID\_EX)
- #define SYSVIEW\_EVTMASK\_ALL\_INTERRUPTS ( SYSVIEW\_EVTMASK\_ISR\_ENTER \ |  
SYSVIEW\_EVTMASK\_ISR\_EXIT \ | SYSVIEW\_EVTMASK\_ISR\_TO\_SCHEDULER)
- #define SYSVIEW\_EVTMASK\_ALL\_TASKS ( SYSVIEW\_EVTMASK\_TASK\_START\_EXEC \ |  
| SYSVIEW\_EVTMASK\_TASK\_STOP\_EXEC \ | | SYSVIEW\_EVTMASK\_TASK\_START\_READY  
\ | SYSVIEW\_EVTMASK\_TASK\_STOP\_READY \ | | SYSVIEW\_EVTMASK\_TASK\_CREATE  
\ | SYSVIEW\_EVTMASK\_TASK\_INFO \ | | SYSVIEW\_EVTMASK\_STACK\_INFO \ | |  
SYSVIEW\_EVTMASK\_TASK\_TERMINATE)

### 2.5.3. Typedefs

- typedef struct SEGGER\_SYSVIEW\_MODULE\_STRUCT SEGGER\_SYSVIEW\_MODULE
- typedef void( SEGGER\_SYSVIEW\_SEND\_SYS\_DESC\_FUNC

### 2.5.4. Functions

- void SEGGER\_SYSVIEW\_Init ( U32 SysFreq, U32 CPUFreq, const SEGGER\_SYSVIEW\_OS\_API \* pOSAPI, SEGGER\_SYSVIEW\_SEND\_SYS\_DESC\_FUNC pfSendSysDesc)
- void SEGGER\_SYSVIEW\_SetRAMBase ( U32 RAMBaseAddress)
- void SEGGER\_SYSVIEW\_Start ( void )
- void SEGGER\_SYSVIEW\_Stop ( void )
- void SEGGER\_SYSVIEW\_GetSysDesc ( void )
- void SEGGER\_SYSVIEW\_SendTaskList ( void )
- void SEGGER\_SYSVIEW\_SendTaskInfo ( const SEGGER\_SYSVIEW\_TASKINFO \* pInfo)
- void SEGGER\_SYSVIEW\_SendSysDesc ( const char \* sSysDesc)
- int SEGGER\_SYSVIEW\_isConnected ( void )
- void SEGGER\_SYSVIEW\_setMicroJVMTask ( U32 )
- void SEGGER\_SYSVIEW\_setMicroJVMTaskPriority ( U32 )
- void SEGGER\_SYSVIEW\_setCurrentMicroEJTask ( U32 )
- void SEGGER\_SYSVIEW\_RecordVoid ( unsigned int EventId)

- void SEGGER\_SYSVIEW\_RecordU32 ( unsigned int EventId, U32 Para0)
- void SEGGER\_SYSVIEW\_RecordU32x2 ( unsigned int EventId, U32 Para0, U32 Para1)
- void SEGGER\_SYSVIEW\_RecordU32x3 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2)
- void SEGGER\_SYSVIEW\_RecordU32x4 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3)
- void SEGGER\_SYSVIEW\_RecordU32x5 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4)
- void SEGGER\_SYSVIEW\_RecordU32x6 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5)
- void SEGGER\_SYSVIEW\_RecordU32x7 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6)
- void SEGGER\_SYSVIEW\_RecordU32x8 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6, U32 Para7)
- void SEGGER\_SYSVIEW\_RecordU32x9 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6, U32 Para7, U32 Para8)
- void SEGGER\_SYSVIEW\_RecordU32x10 ( unsigned int EventId, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6, U32 Para7, U32 Para8, U32 Para9)
- void SEGGER\_SYSVIEW\_RecordString ( unsigned int EventId, const char \* pString)
- void SEGGER\_SYSVIEW\_RecordSystime ( void )
- void SEGGER\_SYSVIEW\_RecordEnterISR ( void )
- void SEGGER\_SYSVIEW\_RecordExitISR ( void )
- void SEGGER\_SYSVIEW\_RecordExitISRToScheduler ( void )
- void SEGGER\_SYSVIEW\_RecordEnterTimer ( U32 TimerId)
- void SEGGER\_SYSVIEW\_RecordExitTimer ( void )
- void SEGGER\_SYSVIEW\_RecordEndCall ( unsigned int EventID)
- void SEGGER\_SYSVIEW\_RecordEndCallU32 ( unsigned int EventID, U32 Para0)
- void SEGGER\_SYSVIEW\_OnIdle ( void )
- void SEGGER\_SYSVIEW\_OnTaskCreate ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskTerminate ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskStartExec ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskStopExec ( void )

- void SEGGER\_SYSVIEW\_OnTaskStartReady ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskStopReady ( U32 TaskId, unsigned int Cause)
- void SEGGER\_SYSVIEW\_OnUserStart ( unsigned int UserId)
- void SEGGER\_SYSVIEW\_OnUserStop ( unsigned int UserId)
- void SEGGER\_SYSVIEW\_NameResource ( U32 ResourcId, const char \* sName)
- int SEGGER\_SYSVIEW\_SendPacket ( U8 \* pPacket, U8 \* pPayloadEnd, unsigned int EventId)
- U8 \* SEGGER\_SYSVIEW\_EncodeU32 ( U8 \* pPayload, U32 Value)
- U8 \* SEGGER\_SYSVIEW\_EncodeData ( U8 \* pPayload, const char \* pSrc, unsigned int Len)
- U8 \* SEGGER\_SYSVIEW\_EncodeString ( U8 \* pPayload, const char \* s, unsigned int MaxLen)
- U8 \* SEGGER\_SYSVIEW\_EncodeId ( U8 \* pPayload, U32 Id)
- U32 SEGGER\_SYSVIEW\_ShrinkId ( U32 Id)
- void SEGGER\_SYSVIEW\_RegisterModule ( SEGGER\_SYSVIEW\_MODULE \* pModule)
- void SEGGER\_SYSVIEW\_RecordModuleDescription ( const SEGGER\_SYSVIEW\_MODULE \* pModule, const char \* sDescription)
- void SEGGER\_SYSVIEW\_SendModule ( U8 ModuleId)
- void SEGGER\_SYSVIEW\_SendModuleDescription ( void )
- void SEGGER\_SYSVIEW\_SendNumModules ( void )
- void SEGGER\_SYSVIEW\_PrintfHostEx ( const char \* s, U32 Options, ... )
- void SEGGER\_SYSVIEW\_PrintfTargetEx ( const char \* s, U32 Options, ... )
- void SEGGER\_SYSVIEW\_PrintfHost ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_PrintfTarget ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_WarnfHost ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_WarnfTarget ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_ErrorfHost ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_ErrorfTarget ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_Print ( const char \* s)
- void SEGGER\_SYSVIEW\_Warn ( const char \* s)
- void SEGGER\_SYSVIEW\_Error ( const char \* s)

- void SEGGER\_SYSVIEW\_EnableEvents ( U32 EnableMask)
- void SEGGER\_SYSVIEW\_DisableEvents ( U32 DisableMask)
- void SEGGER\_SYSVIEW\_Conf ( void )
- U32 SEGGER\_SYSVIEW\_X\_GetTimestamp ( void )
- U32 SEGGER\_SYSVIEW\_X\_GetInterruptId ( void )

## Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-sys-  
 temview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/  
 thirdparty/systemview/inc/SEGGER\_SYSVIEW.h

## 2.6. SEGGER\_SYSVIEW\_ConfDefaults.h File Reference

```
#include "SEGGER_SYSVIEW_configuration.h"
```

```
#include "SEGGER_RTT_configuration.h"
```

### 2.6.1. Macros

- #define SEGGER\_SYSVIEW\_MAX\_ARGUMENTS 16
- #define SEGGER\_SYSVIEW\_MAX\_STRING\_LEN 128
- #define SEGGER\_SYSVIEW\_PRINTF\_IMPLICIT\_FORMAT 0
- #define SEGGER\_SYSVIEW\_MAX\_PACKET\_SIZE      SEGGER\_SYSVIEW\_INFO\_SIZE      +  
                   SEGGER\_SYSVIEW\_MAX\_STRING\_LEN      +    2    \*    SEGGER\_SYSVIEW\_QUANTA\_U32      +  
                   SEGGER\_SYSVIEW\_MAX\_ARGUMENTS \* SEGGER\_SYSVIEW\_QUANTA\_U32
- #define SEGGER\_SYSVIEW\_SYNC\_PERIOD\_SHIFT 8
- #define SEGGER\_SYSVIEW\_LOCK SEGGER\_RTT\_LOCK()
- #define SEGGER\_SYSVIEW\_UNLOCK SEGGER\_RTT\_UNLOCK()

## Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-sys-  
 temview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/  
 thirdparty/systemview/inc/SEGGER\_SYSVIEW\_ConfDefaults.h

## 2.7. SEGGER\_SYSVIEW\_configuration.h File Reference

### 2.7.1. Macros

- #define SEGGER\_SYSVIEW\_CORE\_OTHER 0
- #define SEGGER\_SYSVIEW\_CORE\_CM0 1
- #define SEGGER\_SYSVIEW\_CORE\_CM3 2
- #define SEGGER\_SYSVIEW\_CORE\_RX 3
- #define SEGGER\_SYSVIEW\_CORE SEGGER\_SYSVIEW\_CORE\_OTHER
- #define SEGGER\_SYSVIEW\_RTT\_BUFFER\_SIZE 1024
- #define SEGGER\_SYSVIEW\_RTT\_CHANNEL 1
- #define SEGGER\_SYSVIEW\_USE\_STATIC\_BUFFER 1
- #define SEGGER\_SYSVIEW\_POST\_MORTEM\_MODE 0
- #define SEGGER\_SYSVIEW\_GET\_TIMESTAMP SEGGER\_SYSVIEW\_X\_GetTimestamp()
- #define SEGGER\_SYSVIEW\_TIMESTAMP\_BITS 32
- #define SEGGER\_SYSVIEW\_ID\_BASE 0x10000000
- #define SEGGER\_SYSVIEW\_ID\_SHIFT 2
- #define SEGGER\_SYSVIEW\_GET\_INTERRUPT\_ID SEGGER\_SYSVIEW\_X\_GetInterruptId()

### Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/inc/SEGGER\_SYSVIEW\_Configuration.h

## 2.8. SEGGER\_SYSVIEW\_Int.h File Reference

```
#include "SEGGER_SYSVIEW.h"
```

```
#include "SEGGER_SYSVIEW_Configuration.h"
```

```
#include "SEGGER_SYSVIEW_ConfDefaults.h"
```

## 2.8.1. Enumerations

- enum SEGGER\_SYSVIEW\_COMMAND\_ID {  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_START= 1,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_STOP,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_GET\_SYSTIME,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_GET\_TASKLIST,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_GET\_SYSDESC,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_GET\_NUMMODULES,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_GET\_MODULEDESC,  
    SEGGER\_SYSVIEW\_COMMAND\_ID\_GET\_MODULE= 128  
}

## Detailed Description

Definition                 in                 file                 /home/is2t/workspace/M0119\_CCO-sys-  
temview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/  
thirdparty/systemview/inc/SEGGER\_SYSVIEW\_Int.h

## 2.9. SEGGER\_RTT.c File Reference

```
#include "SEGGER_RTT.h"
```

```
#include <string.h>
```

## 2.9.1. Macros

- #define BUFFER\_SIZE\_UP 1024
- #define BUFFER\_SIZE\_DOWN 16
- #define SEGGER\_RTT\_MAX\_NUM\_UP\_BUFFERS 2
- #define SEGGER\_RTT\_MAX\_NUM\_DOWN\_BUFFERS 2
- #define SEGGER\_RTT\_ALIGNMENT 0
- #define SEGGER\_RTT\_BUFFER\_ALIGNMENT 0
- #define SEGGER\_RTT\_MODE\_DEFAULT SEGGER\_RTT\_MODE\_NO\_BLOCK\_SKIP
- #define SEGGER\_RTT\_LOCK
- #define SEGGER\_RTT\_UNLOCK
- #define STRLEN strlen((a))

- #define SEGGER\_RTT\_MEMCPY\_USE\_BYTELOOP 0
- #define SEGGER\_RTT\_MEMCPY memcpy((pDest), (pSrc), (NumBytes))
- #define MIN (((a) < (b)) ? (a) : (b))
- #define MAX (((a) > (b)) ? (a) : (b))
- #define NULL 0
- #define SEGGER\_RTT\_ALIGN Var
- #define SEGGER\_RTT\_PUT\_SECTION Var
- #define SEGGER\_RTT\_CB\_ALIGN Var
- #define SEGGER\_RTT\_BUFFER\_ALIGN Var
- #define SEGGER\_RTT\_PUT\_CB\_SECTION Var
- #define SEGGER\_RTT\_PUT\_BUFFER\_SECTION Var
- #define INIT do { \ if (\_SEGGER\_RTT.acID[0] == '\0') { \_DoInit(); } \ } while (0)

## 2.9.2. Variables

- static unsigned char \_aTerminalId
- static char \_ActiveTerminal

## 2.9.3. Functions

- SEGGER\_RTT\_PUT\_CB\_SECTION ( SEGGER\_RTT\_CB\_ALIGN(SEGGER\_RTT\_CB\_SEGGER\_RTT) )
- SEGGER\_RTT\_PUT\_BUFFER\_SECTION ( SEGGER\_RTT\_BUFFER\_ALIGN(static char \_acUpBuffer [BUFFER\_SIZE\_UP]) )
- SEGGER\_RTT\_PUT\_BUFFER\_SECTION ( SEGGER\_RTT\_BUFFER\_ALIGN(static char \_acDownBuffer[BUFFER\_SIZE\_DOWN])) )
- static void \_DoInit ( void )
- static unsigned \_WriteBlocking ( SEGGER\_RTT\_BUFFER\_UP \* pRing, const char \* pBuffer, unsigned NumBytes)
- static void \_WriteNoCheck ( SEGGER\_RTT\_BUFFER\_UP \* pRing, const char \* pData, unsigned NumBytes)
- static void \_PostTerminalSwitch ( SEGGER\_RTT\_BUFFER\_UP \* pRing, unsigned char TerminalId)
- static unsigned \_GetAvailWriteSpace ( SEGGER\_RTT\_BUFFER\_UP \* pRing)

- `unsigned SEGGER_RTT_ReadNoLock ( unsigned BufferIndex, void * pData, unsigned BufferSize)`
- `unsigned SEGGER_RTT_Read ( unsigned BufferIndex, void * pBuffer, unsigned BufferSize)`
- `void SEGGER_RTT_WriteWithOverwriteNoLock ( unsigned BufferIndex, const void * pBuffer, unsigned NumBytes)`
- `unsigned SEGGER_RTT_WriteSkipNoLock ( unsigned BufferIndex, const void * pBuffer, unsigned NumBytes)`
- `unsigned SEGGER_RTT_WriteNoLock ( unsigned BufferIndex, const void * pBuffer, unsigned NumBytes)`
- `unsigned SEGGER_RTT_Write ( unsigned BufferIndex, const void * pBuffer, unsigned NumBytes)`
- `unsigned SEGGER_RTT_WriteString ( unsigned BufferIndex, const char * s)`
- `unsigned SEGGER_RTT_PutCharSkipNoLock ( unsigned BufferIndex, char c)`
- `unsigned SEGGER_RTT_PutCharSkip ( unsigned BufferIndex, char c)`
- `unsigned SEGGER_RTT_PutChar ( unsigned BufferIndex, char c)`
- `int SEGGER_RTT_GetKey ( void )`
- `int SEGGER_RTT_WaitKey ( void )`
- `int SEGGER_RTT_HasKey ( void )`
- `unsigned SEGGER_RTT_HasData ( unsigned BufferIndex)`
- `int SEGGER_RTT_AllocDownBuffer ( const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_AllocUpBuffer ( const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_ConfigUpBuffer ( unsigned BufferIndex, const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_ConfigDownBuffer ( unsigned BufferIndex, const char * sName, void * pBuffer, unsigned BufferSize, unsigned Flags)`
- `int SEGGER_RTT_SetNameUpBuffer ( unsigned BufferIndex, const char * sName)`
- `int SEGGER_RTT_SetNameDownBuffer ( unsigned BufferIndex, const char * sName)`
- `int SEGGER_RTT_SetFlagsUpBuffer ( unsigned BufferIndex, unsigned Flags)`
- `int SEGGER_RTT_SetFlagsDownBuffer ( unsigned BufferIndex, unsigned Flags)`
- `void SEGGER_RTT_Init ( void )`
- `int SEGGER_RTT_SetTerminal ( char TerminalId)`

- int SEGGER\_RTT\_TerminalOut ( char TerminalId, const char \* s)

## Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/src/SEGGER\_RTT.c

## 2.10. SEGGER\_SYSVIEW.c File Reference

```
#include "SEGGER_SYSVIEW_Int.h"
```

```
#include "SEGGER_RTT.h"
```

```
#include <string.h>
```

```
#include <stdlib.h>
```

```
#include <stdarg.h>
```

### 2.10.1. Data Structures

- struct SEGGER\_SYSVIEW\_PRINTF\_DESC
- struct SEGGER\_SYSVIEW\_GLOBALS

### 2.10.2. Macros

- #define SHRINK\_ID ((Id) - \_SYSVIEW\_Globals.RAMBaseAddress)
- #define CHANNEL\_ID\_UP \_SYSVIEW\_Globals.UpChannel
- #define CHANNEL\_ID\_DOWN \_SYSVIEW\_Globals.DownChannel
- #define MAKE\_DELTA\_32BIT Delta <<= 32 - SEGGER\_SYSVIEW\_TIMESTAMP\_BITS; \ Delta >>= 32 - SEGGER\_SYSVIEW\_TIMESTAMP\_BITS;
- #define ENABLE\_STATE\_OFF 0
- #define ENABLE\_STATE\_ON 1
- #define ENABLE\_STATE\_DROPPING 2

- #define FORMAT\_FLAG\_LEFT\_JUSTIFY (1u << 0)
- #define FORMAT\_FLAG\_PAD\_ZERO (1u << 1)
- #define FORMAT\_FLAG\_PRINT\_SIGN (1u << 2)
- #define FORMAT\_FLAG\_ALTERNATE (1u << 3)
- #define MODULE\_EVENT\_OFFSET (512)
- #define ENCODE\_U32 { \ U8\* pSysviewPointer; \ U32 SysViewData; \ pSysviewPointer = pDest; \ SysViewData = Value; \ while(SysViewData > 0x7F) { \ \*pSysviewPointer++ = (U8)(SysViewData | 0x80); \ SysViewData >>= 7; \ }; \ \*pSysviewPointer++ = (U8)SysViewData; \ pDest = pSysviewPointer; \ };
- #define RECORD\_START U8 aPacket[(PacketSize)];\ pPayloadStart=\_PreparePacket(aPacket); \
- #define RECORD\_END

### 2.10.3. Variables

- static const U8 \_abSync
- static char \_UpBuffer
- static char \_DownBuffer
- static SEGGER\_SYSVIEW\_GLOBALS \_SYSVIEW\_Globals
- static SEGGER\_SYSVIEW\_MODULE \* \_pFirstModule
- static U8 \_NumModules
- static U8 \_connectionDetected

### 2.10.4. Functions

- static void \_SendPacket ( U8 \* pStartPacket, U8 \* pEndPacket, unsigned int EventId)
- static U32 \_SEGGER\_SYSVIEW\_convertMicroEJTask ( U32 TaskId)
- static U8 \* \_EncodeData ( U8 \* pPayload, const char \* pSrc, unsigned int NumBytes)
- static U8 \* \_EncodeStr ( U8 \* pPayload, const char \* pText, unsigned int Limit)
- static U8 \* \_EncodeTaskName ( U8 \* pPayload, const char \* pText, unsigned int Limit, int mej\_task)
- static U8 \* \_PreparePacket ( U8 \* pPacket)
- static void \_HandleIncomingPacket ( void )

- static int \_TrySendOverflowPacket ( void )
- static int \_VPrintHost ( const char \* s, U32 Options, va\_list \* pParamList)
- static void \_StoreChar ( SEGGER\_SYSVIEW\_PRINTF\_DESC \* p, char c)
- static void \_PrintUnsigned ( SEGGER\_SYSVIEW\_PRINTF\_DESC \* pBufferDesc, unsigned int v, unsigned int Base, unsigned int NumDigits, unsigned int FieldWidth, unsigned int FormatFlags)
- static void \_PrintInt ( SEGGER\_SYSVIEW\_PRINTF\_DESC \* pBufferDesc, int v, unsigned int Base, unsigned int NumDigits, unsigned int FieldWidth, unsigned int FormatFlags)
- static void \_VPrintTarget ( const char \* sFormat, U32 Options, va\_list \* pParamList)
- void SEGGER\_SYSVIEW\_Init ( U32 SysFreq, U32 CPUFreq, const SEGGER\_SYSVIEW\_OS\_API \* pOSAPI, SEGGER\_SYSVIEW\_SEND\_SYS\_DESC\_FUNC pfSendSysDesc)
- void SEGGER\_SYSVIEW\_SetRAMBase ( U32 RAMBaseAddress)
- void SEGGER\_SYSVIEW\_RecordVoid ( unsigned int EventID)
- void SEGGER\_SYSVIEW\_RecordU32 ( unsigned int EventID, U32 Value)
- void SEGGER\_SYSVIEW\_RecordU32x2 ( unsigned int EventID, U32 Para0, U32 Para1)
- void SEGGER\_SYSVIEW\_RecordU32x3 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2)
- void SEGGER\_SYSVIEW\_RecordU32x4 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3)
- void SEGGER\_SYSVIEW\_RecordU32x5 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4)
- void SEGGER\_SYSVIEW\_RecordU32x6 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5)
- void SEGGER\_SYSVIEW\_RecordU32x7 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6)
- void SEGGER\_SYSVIEW\_RecordU32x8 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6, U32 Para7)
- void SEGGER\_SYSVIEW\_RecordU32x9 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6, U32 Para7, U32 Para8)
- void SEGGER\_SYSVIEW\_RecordU32x10 ( unsigned int EventID, U32 Para0, U32 Para1, U32 Para2, U32 Para3, U32 Para4, U32 Para5, U32 Para6, U32 Para7, U32 Para8, U32 Para9)
- void SEGGER\_SYSVIEW\_RecordString ( unsigned int EventID, const char \* pString)
- void SEGGER\_SYSVIEW\_Start ( void )
- void SEGGER\_SYSVIEW\_Stop ( void )

- void SEGGER\_SYSVIEW\_GetSysDesc ( void )
- void SEGGER\_SYSVIEW\_SendTaskInfo ( const SEGGER\_SYSVIEW\_TASKINFO \* pInfo)
- void SEGGER\_SYSVIEW\_SendTaskList ( void )
- void SEGGER\_SYSVIEW\_SendSysDesc ( const char \* sSysDesc)
- void SEGGER\_SYSVIEW\_RecordSystime ( void )
- void SEGGER\_SYSVIEW\_RecordEnterISR ( void )
- void SEGGER\_SYSVIEW\_RecordExitISR ( void )
- void SEGGER\_SYSVIEW\_RecordExitISRToScheduler ( void )
- void SEGGER\_SYSVIEW\_RecordEnterTimer ( U32 TimerId)
- void SEGGER\_SYSVIEW\_RecordExitTimer ( void )
- void SEGGER\_SYSVIEW\_RecordEndCall ( unsigned int EventID)
- void SEGGER\_SYSVIEW\_RecordEndCallU32 ( unsigned int EventID, U32 Para0)
- void SEGGER\_SYSVIEW\_OnIdle ( void )
- void SEGGER\_SYSVIEW\_OnTaskCreate ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskTerminate ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskStartExec ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskStopExec ( void )
- void SEGGER\_SYSVIEW\_OnTaskStartReady ( U32 TaskId)
- void SEGGER\_SYSVIEW\_OnTaskStopReady ( U32 TaskId, unsigned int Cause)
- void SEGGER\_SYSVIEW\_OnUserStart ( unsigned UserId)
- void SEGGER\_SYSVIEW\_OnUserStop ( unsigned UserId)
- void SEGGER\_SYSVIEW\_NameResource ( U32 ResourceId, const char \* sName)
- int SEGGER\_SYSVIEW\_SendPacket ( U8 \* pPacket, U8 \* pPayloadEnd, unsigned int EventId)
- U8 \* SEGGER\_SYSVIEW\_EncodeU32 ( U8 \* pPayload, U32 Value)
- U8 \* SEGGER\_SYSVIEW\_EncodeString ( U8 \* pPayload, const char \* s, unsigned int MaxLen)
- U8 \* SEGGER\_SYSVIEW\_EncodeData ( U8 \* pPayload, const char \* pSrc, unsigned int NumBytes)
- U8 \* SEGGER\_SYSVIEW\_EncodeId ( U8 \* pPayload, U32 Id)
- U32 SEGGER\_SYSVIEW\_ShrinkId ( U32 Id)

- void SEGGER\_SYSVIEW\_RegisterModule ( SEGGER\_SYSVIEW\_MODULE \* pModule)
- void SEGGER\_SYSVIEW\_RecordModuleDescription ( const SEGGER\_SYSVIEW\_MODULE \* pModule, const char \* sDescription)
- void SEGGER\_SYSVIEW\_SendModule ( U8 ModuleId)
- void SEGGER\_SYSVIEW\_SendModuleDescription ( void )
- void SEGGER\_SYSVIEW\_SendNumModules ( void )
- void SEGGER\_SYSVIEW\_PrintfHostEx ( const char \* s, U32 Options, ... )
- void SEGGER\_SYSVIEW\_PrintfHost ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_WarnfHost ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_ErrorfHost ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_PrintfTargetEx ( const char \* s, U32 Options, ... )
- void SEGGER\_SYSVIEW\_PrintfTarget ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_WarnfTarget ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_ErrorfTarget ( const char \* s, ... )
- void SEGGER\_SYSVIEW\_Print ( const char \* s)
- void SEGGER\_SYSVIEW\_Warn ( const char \* s)
- void SEGGER\_SYSVIEW\_Error ( const char \* s)
- void SEGGER\_SYSVIEW\_EnableEvents ( U32 EnableMask)
- void SEGGER\_SYSVIEW\_DisableEvents ( U32 DisableMask)
- int SEGGER\_SYSVIEW\_isConnected ( )
- void SEGGER\_SYSVIEW\_setMicroJVMTTask ( U32 TaskId)
- void SEGGER\_SYSVIEW\_setMicroJVMTTaskPriority ( U32 TaskPriority)
- void SEGGER\_SYSVIEW\_setCurrentMicroEJTask ( U32 TaskId)

## Detailed Description

Definition                in                file                /home/is2t/workspace/M0119\_CCO-systemview/com.microej.clibrary.thirdparty.systemview/target~/ccomponentWorking/bsp/thirdparty/systemview/src/SEGGER\_SYSVIEW.c