

Name: SFN_PB_Logger

Revision: 0.1

Ladder: false

Complex: true

Graphic Schema:

SFN_PB_Logger	
op_LogData	ToObject
c_Group	ObjectStatus
c_FlushTime	o_ErrorWarningStatus
c_RtNrOfLogEntries	m_Id
o_RtTriggerEvent	m_p_Name
o_ErrorWarningEvent	op_sfnObjChain
	MsgLogLevel
	MsgLogTarget
	o_MsgLogCnt
	RtLogBufMode
	ip_RtLogFile
	o_rtLogDataCnt
	ip_LogData
	Command

Comment: SFN_PB_Logger

Central Logger for Pressbrake application.

Central place to log messages and/or realtime data received from other classes.

(see methodes SF_Base.WriteLogRtData() en SF_Base.WriteLogMessage())

This class supports

- 1) message logging
- 2) Realtime data logging
- 3) Create a chain of connected SFN_Base objects for logging

Both loggings can be activated simultanuously.

Message logging stores messages to either screen, file or Both screen and file.

Filename for message logging is fixed EVENT01.LOG (defined by Lasal OS).

Server p_sfnObjChain Points to start of chain of connected SFN_Base objects.

Server MsgLogLevel we can select the message priority levels which should be logged.

Server MsgLogTarget we can select the output to send the messages to.

Server o_MsgLogCnt Show nr of messages logged

Server RtLogMBufMode is used to select the buffer mode

- cyclic overwrite buffer if it is full

- once write until buffer is full

Server ip_RtLogFile a pointer to File name string for Realtime data logging can be set.

Note: Filename for message logging is controled by Lasal OS.

Server o_RtLogDataCnt: Show nr of realtime data entries logged

Server ip_LogData is the interface to other class objects. Via this server this class receives the logdata from other classes.

Server command is used to send commands.

With methode SetTriggerRtLog() a trigger condition can be set (Stored in variable RtTriggerSetting).

Message logging logs messages in an OS buffer. If buffer is full the content is send to File.

Client flusTime is used to set the time to flush automtically messages to a file in case buffer is not full.

Realtime Data Logging logs data into an internal RAM buffer.

With Client c_RtNrOfLogEntries we can select the number of entries to be stored.

Note: Size of buffer may exceed the limit of 64K which is used by Lasal for class objects

With LogCommand LOGCMD_SENDFILE_RT_LOG the stored RtLogData can be stored in a File.

Clients: Name: op_LogData
Class: SFN_Base
DataType: gpt_LogData
Type: Data Channel
Required: false

Name: c_Group
Class: SFN_Base
DataType: UDINT
Type: Data Channel
Required: false
Comment: Group identification object is part of.

Name: c_FlushTime
Class: SFN_Logger
DataType: UDINT
Type: Data Channel
Required: false
Comment: Time to flush logging messages (write buffer to file)

Unit: Miliseconds

Name: c_RtNrOfLogEntries
Class: SFN_Logger
DataType: UDINT
Type: Data Channel
Required: true
Comment: Nr of entries in Realtime LogData buffer

Name: o_RtTriggerEvent
Class: SFN_Logger
DataType: DINT
Type: Data Channel
Required: false
Comment: Trigger found for Realtime data logging
Generic interface is used
so if wanted each object can use
this event for debugging.

Name: o_ErrorWarningEvent
Class: SFN_Logger
DataType: UDINT
Type: Data Channel
Required: false
Comment: Event to indicate an Error or Warning occurred.
Only pass events for
- Warning
- application error
- internal error
- critical error
Note:
Event will always send even logging is disabled.

Server: Name: ToObject
GUID: {9EED831D-1495-49CA-AD11-0E8CDA8941D2}
Class: SFN_Base
Visualized: false
DataType: pVoid
Type: Object Channel
Initialize: false
WriteProtected: true
Retentive: false
Comment: ToObject:
Object channel server.
Channel to reach the methodes of this object.
In case this object should be Accessible by a pointer
the variable ToObject is used to handover the address of this object.
This server is never used for anything else!!!

Name: ObjectStatus

Visualized: false

Data Type: gt_ObjectStatus
Type: Data Channel
Initialize: false
WriteProtected: false
Retentive: false
Comment: Generic object status interface.
Bit 0 - 15 is reserved for generic Safan framework
Bit 16 -31 can be used by the application
See also type gt_ObjectStatus.

Name: o_ErrorWarningStatus
GUID: {71D405E1-73D5-4283-95DF-BAB38DCB9D0B}
Visualized: false
Data Type: UDINT
Type: Data Channel
Initialize: false
WriteProtected: true
Retentive: false
Comment: Actual active Error or Warning status.
A lower level message will not overwrite an active higher level message.
for example a warning will not overwrite this server if it has already an active error
Note: see also internal variable FirstError
to find the first error detected since last
error handling.

Name: m_Id
GUID: {AAB7581E-3B92-42E8-9287-D9BCBCF7E8ED}
Visualized: false
Data Type: UDINT
Type: Data Channel
Initialize: true
WriteProtected: false
Retentive: false
Comment: An identification number of this object.
Free to use/define by derived classes and application.

Name: m_p_Name
GUID: {33AD7665-E336-4A23-BACF-BD56E31FDC73}
Visualized: false
Data Type: pChar
Type: Data Channel
Initialize: false
WriteProtected: true
Retentive: false
Comment: Name of this object.
String is closed by an end of sting character (value 0)
String is read only!

Name: op_sfnObjChain
GUID: {38436872-8F2E-4408-B2CD-79AAD14AEEC0}
Visualized: false
Data Type: pVoid
Type: Data Channel
Initialize: false
WriteProtected: true
Retentive: false
Comment: Points to chain of all SFN_Base objects registrated to the Logger.
Can be used to go through all objects.

Name: MsgLogLevel
GUID: {C19A5892-EF6B-4E5D-BAA4-4ACDBC2F24C5}
Visualized: false
Data Type: gt_LogLevel
Type: Data Channel
Initialize: true
WriteProtected: false
Retentive: false

Comment: Configuration of Message loglevel.
Only log messages of selected loglevel and higher levels.
Note:
LL_DEBUG_RT is reserved for realtime datalogging.
Setting LL_DEBUG_RT will be changed into loglevel LL_DEBUG.
Tip:
To select temporary individual log levels for debug purpose,
modify ActiveLogFlags by hand.

Name: MsgLogTarget
GUID: {9C544215-D5CB-4C09-AB67-750061B2C276}
Visualized: false
DataType: gt_LogTarget
Type: Data Channel
Initialize: true
WriteProtected: false
Retentive: false
Comment: Configuration of target where to send log messages.

Name: o_MsgLogCnt
GUID: {8136FAB9-0812-4C81-8B98-EEE901B9B6B7}
Visualized: false
DataType: UDINT
Type: Data Channel
Initialize: false
WriteProtected: true
Retentive: false
Comment: Counter of logged messages since last startup or reset cmd.
To be sure message is stored in the log file
execute command LOGCMD_FLUSH_MSG_LOG.

Name: RtLogBufMode
GUID: {D673F089-0855-4304-860F-99C4DB063DA9}
Visualized: false
DataType: gt_FifoBufMode
Type: Data Channel
Initialize: true
WriteProtected: false
Retentive: false
Comment: Buffer mode for Realtime data logging.
- Log Cyclic Continuous logging
- Log Once Until buffer is full

Name: ip_RtLogFile
GUID: {CF57D162-A946-416C-85A6-44EE74F7FE5D}
Visualized: false
DataType: pChar
Type: Data Channel
Initialize: false
WriteProtected: false
Retentive: false
Comment: Pointer to filename string for real datalogging.
(Including drive letter and path)

Name: o_rtLogDataCnt
GUID: {BF16B11F-514A-4B61-B735-6BCBD4CC1E45}
Visualized: false
DataType: UDINT
Type: Data Channel
Initialize: false
WriteProtected: true
Retentive: false
Comment: Counter for number of entries actual logged in realtime data buffer

Name: ip_LogData
GUID: {88708DC1-95EC-4EBF-96ED-1F94A509DD92}
Visualized: false

Name:	Command
GUID:	{9E8B59E0-2A63-40C7-9E3C-8741C29C73FF}
Visualized:	false
DataType:	gt_LogCmd
Type:	Data Channel
Initialize:	true
WriteProtected:	false
Retentive:	false
Comment:	Log command
	Send a log command.
	(See gt_LogCmd for available commands)

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Defines:
#ifdef RT_DATALOGGING_FILE
#define RT_DATALOGGING_FILE "Z:\RT_DEBUG.LOG"

#endif
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Class: SFN_Base
Class: SFN_DynamicBuffer
Class: SFN_FileBase
Class: SFN_LinkedListBase
Class: SFN_Logger
Class: SFN_StringUtils
Types: ChDsc
Types: ChDscEntry
Types: ChMeth
Types: ChMode
Types: ClsHdr
Types: ClsHdrConst
Types: CltCh
Types: ConfStates
Types: gpt_LogData
Types: gt_FifoBufMode
Types: gt_LogCmd
Types: gt_LogData
Types: gt_LogLevel
Types: gt_LogTarget
Types: gt_ObjectStatus
Types: gt_RtLogTrigger
Types: Obj
Types: ObjDsc
Types: pChar
Types: pClsHdr
Types: pFct
Types: pVoid
Types: Revision
Types: SvrCh
Types: SvrDsc
Types: SYSDATE
Types: SYSTIME
Types: void
File: C:\DevEnv\Sigmatek\Projects\SafanApplication\SafanPressBrake\SafanPressBrake\Class\SFN_
File: C:\DevEnv\Sigmatek\Projects\SafanApplication\SafanPressBrake\SafanPressBrake\Class\SFN_
File: C:\DevEnv\Sigmatek\Projects\SafanApplication\SafanPressBrake\SafanPressBrake\Class\SFN_

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File: C:\DevEnv\Sigmatek\Projects\SafanApplication\SafanPressBrake\SafanPressBrake\Class\SFN_
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