

# System Service API specification

**Note/  
CWORDXX is mask word for confidential information.**

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TOYOTA MOTOR CORPRATION

# Module Documentation

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[System service](#)

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### Detailed Description

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struct [PwCompleteAck](#)

struct [\\_SS\\_PSCurrentState](#)

class [Process](#)

class [TimerCtrl](#)

### **OSprocess. Macros**

#define **SERVICE\_CWORD69\_** "\_CWORD69\_"

#define **SERVICE\_AS\_AUDIO** "AS\_AudioService"

#define **SERVICE\_AS\_MODE** "AS\_ModeService"

#define **SERVICE\_BR\_BROWSER** "BR\_BrowserService"

#define **SERVICE\_CAN\_SHADOW** "VS\_CANSShadow"

#define **SERVICE\_CWORD51\_BT** "\_CWORD51\_BT"

#define **SERVICE\_CWORD51\_DR** "\_CWORD51\_DR"

#define **SERVICE\_CWORD51\_CWORD105\_** "\_CWORD51\_\_CWORD105\_"

#define **SERVICE\_DAB** "RS\_Master\_Tuner"

#define **SERVICE\_HMI** "HMI"

#define **SERVICE\_HMI\_CWORD46\_** "HMI\_CWORD46\_Service"

#define **SERVICE\_HMI\_CWORD77\_** "HMI\_CWORD77\_Service"

#define **SERVICE\_IPC\_MP\_SHADOW** "PS\_IPC\_MP\_Shadow"

#define **SERVICE\_KEY\_HANDLER** "PS\_KeyHandler"

#define **SERVICE\_MM\_ICD** "MM\_ICDService"

#define **SERVICE\_MM\_MEDIA** "MM\_MediaService"

#define **SERVICE\_MM\_CWORD21\_** "MM\_CWORD21\_Service"

#define **SERVICE\_NAV** "NAV\_NavigationService"

#define **SERVICE\_NAV\_LOC** "NAV\_LocationService"

#define **SERVICE\_NS\_NPP** "NS\_NPPService"

#define **SERVICE\_NS\_SHARED\_MEM** "NS\_SharedMem"

#define **SERVICE\_NW\_BT** "NW\_BluetoothService"

#define **SERVICE\_NW\_CONNECTION** "NW\_ConnectionService"

#define **SERVICE\_NW\_MESSAGING** "NW\_MessagingService"

#define **SERVICE\_NW\_PHONE** "NW\_PhoneService"

#define **SERVICE\_NW\_PHONE\_BOOK** "NW\_PhoneBookService"

#define **SERVICE\_PSM\_SHADOW** "PS\_PSMShadow"

#define **SERVICE\_PS\_IPC** "PS\_IPC"

#define **SERVICE\_PS\_SWDL\_SHADOW** "PS\_SoftwareUpdateShadow"

#define **SERVICE\_SDARS** "RS\_XSDARSService"

#define **SERVICE\_TUNER** "RS\_Radio"

#define **SERVICE\_VS\_CWORD4\_** "VS\_CWORD4\_Service"

#define **SERVICE\_VS\_DIAG** "VS\_DiagService"

#define **SERVICE\_VS\_DIAG\_DISP** "DiagDispatcherService"

#define **SERVICE\_VS\_CWORD105\_** "VS\_CWORD105\_Service"

```

#define SERVICE_VS_RVC "VS_RVCService"
#define SERVICE_VS_VEHICLE "VS_VehicleService"
#define SS_ERROR_EVENT_START_REQ_TO_SEC (5)
#define SS_ERROR_EVENT_DEBUG_DUMP_RSPN_TO_SEC (1)
#define SS_ERROR_EVENT_BOOT_MICRO_LOG_RESPONSE_TO_SEC (2)
#define SS_ERROR_EVENT_CORE_FILE_POLL_TO_MS (100)
#define SS_ERROR_MSG_USB_DISCON "UsbDisconnected"
#define
    SS_ERROR_MSG_CWORD84_ABNORMAL_SHUTDOWN "_CWORD84_AbnormalShutdown"
    "
#define MAX_STATISTICAL_BUFFER 240
#define
    SS_LOGGER_SAVE_CWORD33_LOG_FLAG "/ramd/log/_CWORD33_log/SS_LOGGER_SAVE_
    CWORD33_LOG_FLAG"
#define SS_DEV_DETECT_THD "SS_Dev_Detect_Thd"
#define SS_DEV_DETECT_SRV MN_SS_DEVDETECTSRV
#define SS_DEV_DETECT_BSP_THD "SS_DeviceDetectErr"
#define SS_GROUP_LAUNCH_TRIGGER "SS_GroupLaunchTrigger"
#define SERVICE_HEARTBEAT "SS_HeartBeatService"
#define SERVICE_LOGGER MN_SS_LOGGERSRV
#define SS_UDEV_DEV_DETECT_DLL "SS_UDEV_DeviceDetect"
#define SS_PLM_SERVICE "SS_PLMService"
#define SERVICE_POWER MN_SS_POWERSERVICE
#define SS_RESOURCE_MONITOR_SERVICE "SS_ResourceMonitorService"
#define SERVICE_SOFTWAREUPDATE "SS_SofUpdateSrv"
#define SERVICE_SYSMANAGER MN_SS_SYSMANAGER
#define SS_WINSYS MN_SS_WINSYS
#define SS_RESOURCE_MANAGER MN_SS_RESOURCEMGR
#define SS_TASK_MANAGER MN_SS_TASKMANAGER
#define SERVICE_VUP MN_SS_VUPSERVICE
#define SS_UPDATESERVICE MN_SS_UPDATESERVICE
#define SSDEBUGDUMP(args...) (SendDebugDumpResponseToSystemManager(TRUE, ## args))
    Redirect either formatted, or unformatted response output to System Manager.
#define SS_SMHeartbeat "SM.Heartbeat"
#define SS_SMLauncher "SM.ProcLaunch"
#define SS_SMLowMemMonitor "SM.LowMemMon"
#define _CWORD33_MAKE_DEFAULT_CALLBACK(x)
#define NTFY_SSSystemMgrUserMode SERVICE_SYSMANAGER"/UserMode"
#define NTFY_SSSystemMgrDataReset SERVICE_SYSMANAGER"/DataReset"
    Notification for data reset.
#define NTFY_SSLastSourceType SERVICE_SYSMANAGER"/LastSourceType"
    Notification used by Audio and System Services for Dynamic Launch.

```

## Typedefs

```

typedef enum \_SS Sources SS_SOURCE
typedef enum \_SS Sources * PSS_SOURCE
typedef enum \_SS Zones SS_ZONE

```

```

typedef enum SS\_Zones * PSS_ZONE
typedef enum E\_AUDIO\_PORT SS_AUDIO_INPUT_PORT
typedef enum E\_AUDIO\_PORT * PSS_AUDIO_INPUT_PORT
typedef enum \_SS\_Device\_Context SS_DEVICE_CONTEXT
typedef enum \_SS\_Device\_Context * PSS_DEVICE_CONTEXT
typedef std::string SS_CONTENT_NAME_t
typedef std::map< SS\_CONT\_CATEGORY\_t, SS\_CONTENT\_NAME\_t > SS_LAST_INFO_t
typedef struct \_CWORD62\_DateAndTime STCanCurrentDateTime
typedef enum \_ELoggerErrorCodes ELOGGERERR_CODES
typedef enum \_EEventLoggerSuccessCode EEvtLoggerSuccessCode
typedef enum \_PwLVIStatus PowerSrvLVIStatus
typedef enum \_PwLVIStatus EPWER_LVI_STATUS
typedef struct PwCompleteAck StartCompleteAck
typedef struct SS\_PSCurrentState SS_PSCurrentState
typedef enum SS\_PowerServiceProtocol SS_PowerServiceProtocol
typedef std::map< SS\_String, Process * > ProcessMap

```

## Enumerations

```

enum SS\_Sources { SS_SOURCE_NA = ***, SS_SOURCE_FM = ***, SS_SOURCE_AM = ***,
SS_SOURCE_CD = ***, SS_SOURCE_AUX = ***, SS_SOURCE_PHONE = ***, SS_SOURCE_TA =
***, SS_SOURCE_CHIMES = ***, SS_SOURCE_NAVI = ***, SS\_SOURCE\_MSC = ***,
SS\_SOURCE\_MTP = ***, SS\_SOURCE\_CWORD57 = ***, SS\_SOURCE\_CWORD73\_APP = ***,
SS\_SOURCE\_CWORD73\_VIDEO\_MODE = ***, SS\_SOURCE\_STREAMING = ***,
SS\_SOURCE\_BT\_AUDIO = ***, SS\_SOURCE\_BT\_SPP = ***, SS\_SOURCE\_SPEECH = ***,
SS\_SOURCE\_USB = SS_SOURCE_MSC, SS\_SOURCE\_CWORD59 = ***, SS_SOURCE_ADRM =
***, SS\_SOURCE\_CWORD60 = ***, SS_SOURCE_ADRA = ***,
SS_SOURCE_INCOMING_CALL = SS_SOURCE_PHONE, SS_SOURCE_PRIVATE_MODE_CALL
= ***, SS_SOURCE_HANDSFREE_SPEAKING = ***, SS_SOURCE_FM_DAB = ***,
SS_SOURCE_SD_CARD = ***, SS_SOURCE_SDARS = ***, SS_SOURCE_BROWSER_ENT = ***,
SS_SOURCE_ML_ENT = ***, SS_SOURCE_ML_INFO = ***, SS_SOURCE_DATA_CD = ***,
SS_SOURCE_TAS = ***, SS_SOURCE_DTV = ***, SS_SOURCE_DVD = ***, SS_SOURCE_BD =
***, SS_SOURCE_DELIVERY_APP = ***, SS_SOURCE_ENTUNE_ENT = ***,
SS_SOURCE_HDD_AUDIO = ***, SS_SOURCE_JOYFUL_TALK = ***,
SS_SOURCE_CLEARANCE_SONAR = ***, SS_SOURCE_DSRC = ***,
SS_SOURCE_ENTUNE_INFO = ***, SS_SOURCE_HELPNET = ***, SS_SOURCE_OTV = ***,
SS_SOURCE_MIRACAST = ***, SS_SOURCE_RSE = ***, SS_SOURCE_INSIDER = ***,
SS_SOURCE_MAIL = ***, SS_SOURCE_MAIL_RINGTONE = ***, SS_SOURCE_BD_REAR = ***,
SS_SOURCE_HDMI_REAR = ***, SS_SOURCE_SD_CARD_REAR = ***,
SS_SOURCE_MIRACAST_REAR = ***, SS_SOURCE_USB_REAR = ***,
SS_SOURCE_DLNA_REAR = ***, SS_SOURCE_BROWSER_INFO = ***,
SS_SOURCE_DSRC_ENT = ***, SS_SOURCE_RECDATA_PLAY = ***, SS_SOURCE_AMFM =
SS_SOURCE_FM, SS_SOURCE_DLNA = ***, SS_SOURCE_USB2 = ***, SS_SOURCE_VDSP = ***,
SS_SOURCE_NAVI_VR = ***, SS_SOURCE_STARTUPBGM = ***,
SS_SOURCE_STARTUPBGM_INIT = ***, SS_SOURCE_MAIL_INFO = ***, SS_SOURCE_DIAG =
***, SS_SOURCE_MAYDAY = ***, SS_SOURCE_DCM = ***, SS_SOURCE_SD_VIDEO = ***,
SS_SOURCE_DELIVERY_APP_INFO = ***, SS_SOURCE_CWORD27_INFO = ***,
SS_SOURCE_POWER_OFF = *** }

```

```

enum \_SS\_Zones { SS\_ZONE\_NA = ***, SS\_ZONE\_DRIVER = ***, SS\_ZONE\_REAR1,
  SS\_ZONE\_REAR2, SS\_ZONE\_REAR3, SS\_ZONE\_ALL }
enum \_E\_AUDIO\_PORT { SS\_AUDIO\_INPUT\_PORT\_1 = ***, SS\_AUDIO\_INPUT\_PORT\_2 = ***,
  SS\_AUDIO\_INPUT\_PORT\_3 = ***, SS\_AUDIO\_INPUT\_PORT\_4 = ***, SS\_AUDIO\_INPUT\_PORT\_5
  = *** }
enum \_SS\_Device\_Context { SINGLE\_CONTEXT = ***, MULTI\_CONTEXT = *** }
enum EErrorEventType { eErrorEventTypeProcessCrash = ***,
  eErrorEventTypeHeartBeatFailure, eErrorEventTypeSystemLowMemory,
  eErrorEventTypeReserved1, eErrorEventTypeUserInvokedUserForceReset,
  eErrorEventTypeReserved2, eErrorEventTypeReserved3,
  eErrorEventTypeUserInvokedCollectAllLogs, eErrorEventTypeBootMicroReset,
  eErrorEventTypeProcessExit, eErrorEventTypeUserInvokedCollectScreenShot,
  eErrorEventTypeUserInvokedCollect\_CWORD33\_Logs, eErrorEventTypeEelExport,
  eErrorEventType\_CWORD33\_EmmcLogs, eErrorEventTypeDiagEvent,
  eErrorEventTypeCanEvent, eErrorEventTypeDtcEvent, eErrorEventTypeModConnFailed,
  eErrorEventTypeStartRespFailed, eErrorEventTypeUserInvokedCollectDevLogs,
  eErrorEventTypeModuleInvokedResetRequest,
  eErrorEventTypeModuleInvokedCollectDebugLogs,
  eErrorEventTypeUserInvokedClearLogs, eErrorEventTypeUserInvokedCollectNaviLog,
  eErrorEventTypeGroupRelaunch, eErrorEventTypeMaxValue }
enum EArtifactId { eArtifactId\_CWORD33\_DebugLog = ***, eArtifactIdTransmitLog,
  eArtifactIdPerformanceLog, eArtifactIdBootMicroLog, eArtifactIdSystemDataCsv,
  eArtifactIdShowMemTxt, eArtifactIdProcessCore, eArtifactIdDebugDumpLog,
  eArtifactIdKernelLog, eArtifactIdDRInitialLog, eArtifactIdDRLocationLog,
  eArtifactIdCpuHighLoadMonteCarloLogs, eArtifactIdMetaCoreLogs, eArtifactIdCmsLogs,
  eArtifactIdInternalDTC, eArtifactIdComDebugLog, eArtifactIdRadioDebugLog,
  eArtifactIdConnectivityDebugLog, eArtifactIdKernelBootLog,
  eArtifactIdGraphicsDebugLog, eArtifactIdSysLog, eArtifactIdPstoreLog,
  eArtifactIdClearAllLog, eArtifactIdNaviLog, eArtifactIdWinSysLog, eArtifactIdAppFwLog,
  eArtifactIdTomoyoLog, eArtifactIdScreenShot, eArtifactIdDebugFolder2Content,
  eArtifactIdDebugFolderContent, eArtifactIdMaxValue }
enum EErrorEventPrio { eErrorEventPrioDiagLogRequest = ***,
  eErrorEventPrioUserInvokedCollectAllLogs = ***,
  eErrorEventPrioUserInvokedCollectScreenShot = ***,
  eErrorEventPrioUserInvokedCollect\_CWORD33\_Logs = ***,
  eErrorEventPrioModuleInvokedCollectDebugLogs = ***,
  eErrorEventPrioUserInvokedUserForceReset = ***, eErrorEventPrioEelStorageFilePresent
  = ***, eErrorEventPrioEmmcLogsFilePresent = ***, eErrorEventPrioDefault = *** }
enum SS\_CONT\_CATEGORY\_t { SS\_CCAT\_F\_VIDEO, SS\_CCAT\_F\_SUB\_VIDEO, SS\_CCAT\_F\_AUDIO,
  SS\_CCAT\_R\_VIDEO, SS\_CCAT\_R\_AUDIO, SS\_CCAT\_MAX }
enum \_ELoggerErrorCodes { eSelectedDeviceNotFound = ***, eWriteToDeviceFailed = ***,
  eScreenCaptureFailed = ***, eScreenCaptureSaveTimeExpired = ***,
  eScreenCaptureStoreTimeExpired = ***, eNoLogToStore = *** }
enum \_EEventLoggerSuccessCode { COPY\_EVT\_USB\_SUCCESS = ***,
  CLEAR\_EVENT\_LOG\_SUCCESS = ***, STATISTICAL\_COUNTER\_READ\_SUCCESS = *** }
enum eSSLoggerCANProtocolID { eSSLoggerCANProtocolIDCANTrigger = ***,
  eSSLoggerCANProtocolIDDTCTrigger } eSSLoggerCANProtocolID

```

```

enum eSSLoggerCANEvent { eSSLoggerCANEventStart = ***,
eSSLoggerCANEventError, eSSLoggerCANEventFinished }eSSLoggerCANEvent
enum SS\_STORELOGS\_OPE\_TYPE { SS\_STORELOGS\_CWORD33\_LOG = ***,
SS\_STORELOGS\_ILLEGAL, SS\_STORELOGS\_ACCOFFON, SS\_STORELOGS\_SYS\_ILLEGAL,
SS\_STORELOGS\_ACCOFFON\_PRESS, SS\_STORELOGS\_MAX }
enum \_PwLVISatus { ePwSrvLVI\_Status\_InActive, ePwSrvLVI\_Status\_Active }
enum \_SS\_PowerServiceProtocol { SS\_POWER\_PRINT\_CONNECTIONS = ***,
SS\_POWER\_PRINT\_STACK = ***, SS\_POWER\_WAKEUP\_COMPLETE = ***,
SS\_POWER\_SHUTDOWN\_COMPLETE = ***, SS\_POWER\_VOLTAGE\_STATE = ***,
SS\_POWER\_LVI2\_SHUTDOWN\_COMPLETE = ***, SS\_POWER\_CRANK\_STATE = ***,
SS\_POWER\_WAKEUP\_MODULES\_CMPL\_RSPN = ***, SS\_POWER\_SYSTEM\_LAUNCH\_COMPLETE
= ***, SS\_POWER\_STATE\_CHANGE\_REQ = ***, SS\_POWER\_STATE\_CHANGE\_RESP = ***,
SS\_POWER\_COMM\_WAKEUP = ***, SS\_POWER\_SHUTDOWN\_REQ = ***,
SS\_POWER\_SHUTDOWN\_RESP = ***, SS\_POWER\_CRNT\_STATE\_QUERY = ***,
SS\_POWER\_CRNT\_STATE\_QUERY\_RSPN = ***, SS\_POWER\_SYSTEM\_MODE\_INFO\_REQ = ***,
SS\_POWER\_SYSTEM\_MODE\_INFO\_RESP = ***, SS\_POWER\_INITCOMP\_REP = ***,
SS\_POWER\_PUBLISH\_POWER\_POPUP\_REQ, SS\_POWER\_PUBLISH\_POWER\_POPUP\_RESP,
SS\_POWER\_PUBLISH\_SHUTDOWN\_CONDITION\_REQ,
SS\_POWER\_PUBLISH\_SHUTDOWN\_CONDITION\_RESP,
SS\_POWER\_FWD\_START\_CONFIRMATION\_MSG\_REQ,
SS\_POWER\_FWD\_START\_CONFIRMATION\_MSG\_RESP, SS\_POWER\_POWER\_REQUEST\_MSG,
SS\_POWER\_SHUTDOWN\_REQUEST\_MSG, SS\_POWER\_USER\_MODE\_SET\_RESP,
SS\_POWER\_HEARTBEAT\_REQ, SS\_POWER\_HEARTBEAT\_RESP, SS\_POWER\_HARD\_RESET\_REQ }

```

## Functions

```

E_CWORD33_Status CWORD33\_SystemConnectToPowerService (HANDLE hApp)
E_CWORD33_Status CWORD33\_SystemConnectToHeartBeatService (HANDLE hApp)
E_CWORD33_Status CWORD33\_SystemConnectToSystemManagerService (HANDLE hApp)
E_CWORD33_Status SS\_ConvLastInfoToOrder (SS_LAST_INFO_t &curLastMode, std::string
&order, const char *p_cfgPath=NULL)
E_CWORD33_Status SS\_LoggerStoreLogs\_deleteOldLogAbnrm (const std::string &log_path,
std::vector< std::string > &l_vector, const std::string &f_archive_destination, SI_32 max_num,
UI_32 abnrm_total)
E_CWORD33_Status StartRtUsbLogThread (HANDLE hApp)
E_CWORD33_Status StopRtUsbLogThread (HANDLE hApp)
E_CWORD33_Status RegisterSMSessionAckCallback (E_CWORD33_Status>(*CallbackPtr)(HANDLE))
E_CWORD33_Status SendBootModeSetRequestToSystemManager (ESMBootModeInfo
hostBootMode)
E_CWORD33_Status SetDataResetModeToSystemManager (ESMDataResetModeInfo
dataResetMode)
E_CWORD33_Status SetProgUpdateStateToSystemManager (SMProgUpdateState
progUpdateState)
E_CWORD33_Status SendCpuResetRequestToSystemManager (ESMCpuResetReason
l_eCpuResetReason, std::string f_messageStr="", std::string f_suffixStr="")
E_CWORD33_Status SetBootLoaderInfoRequestToSystemManager (ESMBootInfoType f_type,
UI_32 f_value)
E_CWORD33_Status GetBootLoaderInfoRequestToSystemManager (void *p_info)

```

E\_CWORD33\_Status [SetWakeupOrderToSystemManager](#) (std::string f\_orderName)  
 E\_CWORD33\_Status [SetNextWakeupTypeToSystemManager](#) (ESMNextWakeupType f\_wakeupType)  
 E\_CWORD33\_Status [SendVarCodeDataToSystemManager](#) (UI\_32 f\_uiLength, void \*f\_data)  
 VOID [Set UseStopCompleteNotificationVs CWORD33 OnStopFnc StateVar](#) (BOOL f\_SetTrue)  
 E\_CWORD33\_Status [SendUserInvokedLoggingRequestToSystemManager](#) (eSMUserLogType f\_userInvokedLogType, std::string f\_messageStr="", std::string f\_suffixStr="")  
 E\_CWORD33\_Status [Send\\_CWORD33 OnStopResponseToSystemManager](#) (E\_CWORD33\_Status f\_eStatus)  
 E\_CWORD33\_Status [Get\\_CWORD33 OnStartExtInfo](#) (T\_SS\_SM\_START ExtDataStructType &f\_info)  
 E\_CWORD33\_Status [Get\\_CWORD33 OnStopExtInfo](#) (T\_SS\_SM\_STOP ExtDataStructType &f\_info)  
 void SendDebugDumpResponseToSystemManager(BOOL f\_bFormatStrRequired, PCSTR f\_cFormat,...) E\_CWORD33\_Status Send\_CWORD33\_EmmcLogsRequestToSystemManager(std E\_CWORD33\_Status [SendClearLogsRequestToSystemManager](#) (TSystemManagerClearLogsInfo \*f\_info)  
 E\_CWORD33\_Status [AttachCallbackToSystemManager](#) (HANDLE hApp, UI\_32 iCmd, CbFuncPtr fpOnCmd)  
*AttachCallbackToSystemManager.*  
 E\_CWORD33\_Status [DetachCallbacksFrom\\_CWORD33 Dispatcher](#) (HANDLE hApp, PCSTR pServiceName, const \_CWORD33\_ProtocolCallbackHandler \*pMsgHandler, UI\_32 uiHandlerCount, HANDLE hSession=NULL)  
*Set of complementary detach functions that accept same arguments as the \_CWORD33\_Attach\_XYZ\_ToDispatcher() functions do.*  
 E\_CWORD33\_Status [DetachParentCallbacksFrom\\_CWORD33 Dispatcher](#) (HANDLE hChildApp, const \_CWORD33\_ProtocolCallbackHandler \*pMsgHandler, UI\_32 uiHandlerCount)

HANDLE [GetSystemManagerSessionHandle](#) (void)  
*GetSystemManagerSessionHandle.*  
 E\_CWORD33\_Status [SendShutdownToSystemManager](#) (Pwr\_ServiceSetInterface \*pData)  
*SendShutdownToSystemManager.*  
 E\_CWORD33\_Status [SendSystemModeRequestToSystemManager](#) (void)  
*SendSystemModeRequestToSystemManager.*  
 E\_CWORD33\_Status [SendInitCompReportToSystemManager](#) (void)  
*SendInitCompReportToSystemManager.*  
 E\_CWORD33\_Status [SendWakeUpToSystemManager](#) (wakeInfo \*pData)  
*SendWakeUpToSystemManager.*  
 E\_CWORD33\_Status [SendStartupConfirmationToSystemManager](#) (StartupConfirmationMsgStrut &l\_startupConfirmationMsg)  
*SendStartupConfirmationToSystemManager.*  
 E\_CWORD33\_Status [SendSystemErrorToSystemManager](#) (E\_CWORD33\_SystemError f\_systemError)  
*SendSystemErrorToSystemManager.*



E\_CWORD33\_Status [Send\\_CWORD56\\_HeartBeatRequestToSystemManager](#) (EPWR\_HB\_REQ\_MSG\_STRUCT f\_HbReq)  
*Send\_CWORD56\_HeartBeatRequestToSystemManager.*

E\_CWORD33\_Status [SendBootMicroResetNotificationToSystemManager](#) (eSMBootMicroResetReason ResetReason)  
*SendBootMicroResetNotificationToSystemManager.*

E\_CWORD33\_Status [SendDiagLoggingRequestToSystemManager](#) (std::string f\_copyDestPathStr)  
*SendDiagLogEventRequestToSystemManager.*

E\_CWORD33\_Status [SendCANLoggingRequestToSystemManager](#) (void)  
*SendCANLoggingRequestToSystemManager.*

E\_CWORD33\_Status [SendDTCLoggingRequestToSystemManager](#) (UI\_32 f\_dtc)  
*SendDTCLoggingRequestToSystemManager.*

E\_CWORD33\_Status [RegisterBootMicroLogRequestCb](#) (HANDLE hApp, CbFuncPtr fpOnCmd)  
*RegisterBootMicroLogRequestCb.*

E\_CWORD33\_Status [SendBootMicroLogResponseToSystemManager](#) (std::string f\_logString)  
*SendBootMicroLogResponseToSystemManager.*

E\_CWORD33\_Status [SendLogStartRequestToSystemManager](#) (EErrorEventType f\_errorEventType)  
*SendLogStartRequestToSystemManager.*

E\_CWORD33\_Status [SendLogArtifactRequestToSystemManager](#) (EArtifactId f\_artifactId)  
*SendLogArtifactRequestToSystemManager.*

E\_CWORD33\_Status [SendLogCompleteRequestToSystemManager](#) (E\_CWORD33\_Status f\_eStatus=e\_CWORD33\_StatusOK)  
*SendLogCompleteRequestToSystemManager.*

E\_CWORD33\_Status [SendEelExportRequestToSystemManager](#) (std::string f\_path)  
*SendEelExportRequestToSystemManager.*

E\_CWORD33\_Status [OnSystemManagerDebugDump](#) (HANDLE hApp)  
*DebugDump request callback function.*

SS\_String [GetStr](#) (BOOL f\_enum)  
SS\_String [GetStr](#) (EErrorEventType f\_enum)  
SS\_String [GetStr](#) (E\_CWORD33\_SystemError f\_enum)  
SS\_String [GetStr](#) (EPWR\_LHC\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_PROD\_MODE\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_SC\_COLD\_START\_REQ\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_SC\_CWORD56\_BOOT\_MODE\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_SHUTDOWN\_TRIGGER\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_STARTUP\_STAGE\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_SYSTEM\_MODE\_INFO f\_enum)  
SS\_String [GetStr](#) (EPWR\_TRANSPORT\_MODE\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_USER\_MODE\_CHANGE\_REASON\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_USER\_MODE\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_WAKEUP\_FACTOR\_TYPE f\_enum)  
SS\_String [GetStr](#) (E\_CWORD33\_Status f\_enum)  
SS\_String [GetStr](#) (ESMBootModelInfo f\_enum)

SS\_String [GetStr](#) ([ESMCpuResetReason](#) f\_enum)  
 SS\_String [GetStr](#) ([SS\\_SystemManagerProtocol](#) f\_enum)

### Variables

```
const UI_32 MaxTestCaseName = ***
const UI_32 MaxRespMsg = ***
const long IProcess_VALIDATION_VALUE = ***
const int iProcess_DEFAULT_PROCESS_PRIORITY = ***
const int iProcess_MAXIMUM_PROCESS_PRIORITY = ***
const long iProcess_DEFAULT_PROCESS_FLAGS
const int iProcess_MAXIMUM_NUMBER_OF_PROCESS_ARGUMENTS = ***
const int iProcess_MAXIMUM_PROCESS_NAME_LENGTH = ***
```

### Detailed Description

### Class Documentation

#### struct ARTIFACT\_RESPONSE

##### Class Members:

EArtifactId	ArtifactId	
CHAR	FilePathAndName[MAX_PATH_LENGTH]	

#### struct THeartBeatSession

##### Class Members:

BOOL	fAvailable	
HANDLE	hService	
string	szServiceName	

#### struct \_T\_CWORD33\_CANMileageInfo

CAN Diagnostic status data.

##### Class Members:

UI_8	DidA_ExtTest_Pres	
UI_8	EngRun_Stat	
UI_8	Odo__CWORD34__H	
UI_8	Odo__CWORD34__L	
UI_8	Odo_LSB_H	
UI_8	Odo_LSB_L	
UI_8	PN14_SupBat_Volt	

**struct \_CWORD62\_DateAndTime**

CAN current date and time.

CAN current date and time

**Class Members:**

UI_8	DateTime_Stat	Date time status
UI_8	DateTimeDay	Date
UI_8	DateTimeHour	Hour
UI_8	DateTimeMinute	Minute
UI_8	DateTimeMonth	Month
UI_8	DateTimeSecond	Second
UI_8	DateTimeYear	Year
UI_8	TimeFormat	Format

**struct \_SStatisticalCounter**

Statistical counter.

**Class Members:**

UI_8	StatisticalCountBuffer[MAX_STATISTICAL_BUFFER]	Counter values for startup,normal and shutsown phases.
UI_16	u16NormalCounterLength	No of Counter from Normal phase.
UI_16	u16ShutDownCounterLength	No of Counter from Shut down phase.
UI_16	u16StartupCounterLength	No of Counter from startup phase.

**struct \_SEventLoggerCommonInfo**

Event logger common information.

**Class Members:**

UI_8	BodyCAN_Stat:4	
UI_8	FOT_Temp:2	
UI_8	HeadUnitCAN_Stat:4	
UI_8	HMIInteraction:4	
UI_8	IGN_Status:4	
UI_8	Syst_CWORD61_oltage:6	

**struct \_SEventLoggerResetInfo**

Event logger resets counter information.

**Class Members:**

UI_8	_CWORD102_ResetInfo	
UI_8	_CWORD56_ResetInfo	

**struct \_SEventLoggerEventInfo**

Event logger CWORD56 events information.

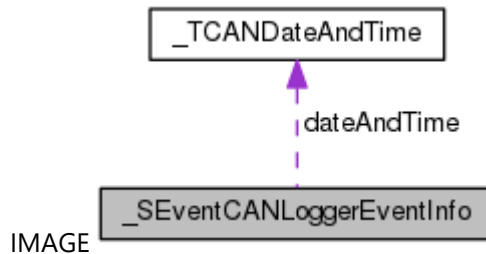
**Class Members:**

UI_8	EventData[4]	
UI_8	EventGroup	
UI_8	EventIdentifier	
UI_8	NumberOfEvents	

**struct \_SEventCANLoggerEventInfo**

Event logger CAN events information.

Collaboration diagram for \_SEventCANLoggerEventInfo:



**Class Members:**

<a href="#">STCanCurrentDateTime</a>	dateAndTime	
BOOL	success	
UI_32	triggerNumber	
BOOL	valid	

**struct \_PwCompleteAck**

### Class Members:

CHAR	szServiceName[MAX_QUEUE_NAME_SIZE]	
UI_16	unSessionId	

### struct \_SS\_PSCurrentState

### Class Members:

CHAR	printRespmsg[MaxRespMsg]	
CHAR	testCaseId[MaxTestCaseName]	

---

## Macro Definition Documentation

### #define \_CWORD33\_\_MAKE\_DEFAULT\_CALLBACK( x)

**Value:**x.onInitalization = \_CWORD33\_OnInitialization; \  
x.onDestroy = \_CWORD33\_OnDestroy; \  
x.onStart = \_CWORD33\_OnStart; \  
x.onStop = \_CWORD33\_OnStop; \  
x.onDebugDump = \_CWORD33\_OnDebugDump; \  
x.createStateMachine = \_CWORD33\_CreateStateMachine; \  
x.ssFrameworkInterface = \_CWORD33\_SSFrameworkInterface; \  
x.onPreStart = \_CWORD33\_OnDummy; \  
x.onPreStop = \_CWORD33\_OnDummy; \  
x.onBackgroundStart = \_CWORD33\_OnDummy; \  
x.onBackgroundStop = \_CWORD33\_OnDummy;

### #define NOTIFY\_SSSystemMgrUserMode SERVICE\_SYSMANAGER"/UserMode"

TRUE : UserMode is UserOn FALSE : UserMode is UserOff Notification for User Mode

### #define SSDEBUGDUMP( args...) (SendDebugDumpResponseToSystemManager(TRUE, ## args))

Redirect either formatted, or unformatted response output to System Manager.

#### See also:

SendDebugDumpResponseToSystemManager

---

## Typedef Documentation

### typedef enum [SS PowerServiceProtocol](#) [SS PowerServiceProtocol](#)

power service protocol > define all protocol messages in and out of power that are pertinent to the functionality offered by power.

## Enumeration Type Documentation

### enum [SS PowerServiceProtocol](#)

power service protocol > define all protocol messages in and out of power that are pertinent to the functionality offered by power.

#### Enumerator

**SS\_POWER\_PRINT\_CONNECTIONS** client to service  
**SS\_POWER\_PRINT\_STACK** client to service  
**SS\_POWER\_WAKEUP\_COMPLETE** service to client // used by power state machine  
**SS\_POWER\_SHUTDOWN\_COMPLETE** service to client // used by power state machine  
**SS\_POWER\_VOLTAGE\_STATE** client to service  
**SS\_POWER\_LVI2\_SHUTDOWN\_COMPLETE** service to client  
**SS\_POWER\_CRANK\_STATE** client to service  
**SS\_POWER\_WAKEUP\_MODULES\_CMPL\_RSPN** service to shadow  
**SS\_POWER\_SYSTEM\_LAUNCH\_COMPLETE** client to service  
**SS\_POWER\_STATE\_CHANGE\_REQ** client to service : send wakeup to System Manager  
**SS\_POWER\_STATE\_CHANGE\_RESP** Response to request of power state transition to power\_supply\_manager\_shadow.  
**SS\_POWER\_COMM\_WAKEUP** client to service : Power On expected  
**SS\_POWER\_SHUTDOWN\_REQ** client to service : Comm Sleep from Shadow  
**SS\_POWER\_SHUTDOWN\_RESP** service to shadow : Shutdown complete from System Manager  
**SS\_POWER\_CRNT\_STATE\_QUERY** client to service  
**SS\_POWER\_CRNT\_STATE\_QUERY\_RSPN** service to client  
**SS\_POWER\_SYSTEM\_MODE\_INFO\_REQ** Client (Shadow) to Service (Power Service)  
**SS\_POWER\_SYSTEM\_MODE\_INFO\_RESP** Service to client \*\*\*\*\*.  
**SS\_POWER\_INITCOMP\_REP** Client (Shadow) to Service (Power Service)  
**SS\_POWER\_PUBLISH\_POWER\_POPUP\_REQ** Shadow to Pwr Svc.  
**SS\_POWER\_PUBLISH\_POWER\_POPUP\_RESP** Pwr Svc to Shadow.  
**SS\_POWER\_PUBLISH\_SHUTDOWN\_CONDITION\_REQ** Shadow to Pwr Svc.  
**SS\_POWER\_PUBLISH\_SHUTDOWN\_CONDITION\_RESP** Pwr Svc to Shadow.  
**SS\_POWER\_FWD\_START\_CONFIRMATION\_MSG\_REQ** Shadow to Pwr Svc.  
**SS\_POWER\_FWD\_START\_CONFIRMATION\_MSG\_RESP** Pwr Svc to Shadow.  
**SS\_POWER\_POWER\_REQUEST\_MSG** Shadow to Pwr Svc.

**SS\_POWER\_SHUTDOWN\_REQUEST\_MSG** Shadow to Pwr Svc.

**SS\_POWER\_USER\_MODE\_SET\_RESP** Power Service to Shadow.

**SS\_POWER\_HEARTBEAT\_REQ** Shadow to Power Service.

**SS\_POWER\_HEARTBEAT\_RESP** Power Service to Shadow.

**SS\_POWER\_HARD\_RESET\_REQ** Power Service to Shadow.

#### enum [SS Sources](#)

##### Enumerator

**SS\_SOURCE\_MSC** Any mass storage device (USB-MSC, SD, HDD etc.,)

**SS\_SOURCE\_MTP** CWORD104 , MTP protocol devices(like CWORD28 over USB)

**SS\_SOURCE\_CWORD73\_APP** CWORD73 based audio application (CWORD74 over BT/USB) - CWORD22 , CWORD13 etc.,

**SS\_SOURCE\_CWORD73\_VIDEO\_MODE** CWORD73 Video Mode (CWORD57 playback)

**SS\_SOURCE\_STREAMING** Streaming over Wi-fi.

**SS\_SOURCE\_BT\_AUDIO** Bluetooth Audio.

**SS\_SOURCE\_BT\_SPP** Bluetooth SPP based audio application (CWORD28 /BB etc.,)

**SS\_SOURCE\_SPEECH** Speech audio playback.

**SS\_SOURCE\_USB** will be deprecated soon

#### enum [SS Zones](#)

##### Enumerator

**SS\_ZONE\_DRIVER** Zero/Driver zone.

#### enum [E AUDIO PORT](#)

##### Enumerator

**SS\_AUDIO\_INPUT\_PORT\_1** Enum representing MCASP2.

**SS\_AUDIO\_INPUT\_PORT\_2** Enum representing MCBSP.

**SS\_AUDIO\_INPUT\_PORT\_3** Enum representing MCASP3.

**SS\_AUDIO\_INPUT\_PORT\_4** Enum representing MCASP3.

**SS\_AUDIO\_INPUT\_PORT\_5** Enum representing other port.

enum [eSSLoggerCANEvent](#)

eSSLoggerCANEvent

**Note:**

Events that are published to CAN for HK and CAN logging. Data structures attached to the single events can be found in below table

EventId	Return type
eSSLoggerCANEventStart	None
eSSLoggerCANEventError	STEventCANLoggerEventInfo
eSSLoggerCANEventFinished	STEventCANLoggerEventInfo

**Enumerator**

***eSSLoggerCANEventError*** Logging has started for HK and CAN events.

***eSSLoggerCANEventFinished*** Logging has aborted with an error.

Logging has finished successfully

enum [eSSLoggerCANProtocolID](#)

eSSLoggerCANProtocolID

**Note:**

These IDs depict the possible events coming from CAN to logger\_service

**Enumerator**

***eSSLoggerCANProtocolIDDTCTrigger*** Start logging to USB.

Start logging of DTC to emmc

---

**Function Documentation**

**E\_CWORD33\_Status\_CWORD33\_SystemConnectToHeartBeatService (HANDLE hApp)**

**Summary**

Called from framework for every app to start connection to HeartBeat

**Parameters:**

in	<i>hApp</i>	HANDLE - App handle, Handle to message queue of
----	-------------	---



		HeartBeat Service.
--	--	--------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

**Preconditions**

**Change of the internal state**

Change of internal state according to the API does not occur.

**Classification**

Public

**Type**

None

**See also:**

*\_CWORD33\_GetAppName* *\_CWORD33\_AttachCallbacksToDispatcher*

**E\_CWORD33\_Status\_CWORD33\_SystemConnectToPowerService (HANDLE *hApp*)**

**Summary**

Subscribe and attach call backs to notifications, to PowerService!

**Parameters:**

in	<i>hApp</i>	HANDLE - App handle
----	-------------	---------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared

	memory, etc.)
--	---------------

**Preconditions**

**Change of the internal state**

Change of internal state according to the API does not occur.

**Classification**

Public

**Type**

None

**See also:**

`_CWORD33_GetAppName` `_CWORD33_SubscribeNotificationsWithCallback`

**E\_CWORD33\_Status \_CWORD33\_SystemConnectToSystemService (HANDLE hApp)**

**Summary**

Subscribe and attach callbacks to System Manager Service!

**Parameters:**

in	<i>hApp</i>	HANDLE - App handle.
----	-------------	----------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

**Preconditions**

**Change of the internal state**

Change of internal state according to the API does not occur.

**Classification**

Public

**Type**

None

**See also:**

[\\_CWORD33\\_GetAppName SystemManagerOpenSender](#)

**E\_CWORD33\_Status AttachCallbackToSystemManager (HANDLE hApp, UI\_32 iCmd, CbFuncPtr fpOnCmd)**

AttachCallbackToSystemManager.

**Note:**

This function is called by System Manager session clients to attach a callback function to the client application with System Manager configured as the specified sender of the specified protocol message.

**Parameters:**

in	<i>f_hApp</i>	HANDLE - Handle to message queue of the System Manager attached client.
in	<i>iCmd</i>	UI_32 iCmd - Command ID
in	<i>fpOnCmd</i>	CbFuncPtr fpOnCmd - Function pointer to be called in the form upon the invocation of the specified command ID. The callback function must have the following signature : void (*)(HANDLE).

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status Get\_CWORD33\_OnStartExtInfo ([T\\_SS\\_SM\\_START\\_ExtDataStructType](#) & *f\_info*)**

**Summary**

API to get the extended information of the start-up parameters.

**Parameters:**

out	<i>f_info</i>	<a href="#">T_SS_SM_START_ExtDataStructType</a> - Startup parameters extended information
-----	---------------	---

[T\\_SS\\_SM\\_START\\_ExtDataStructType](#) Structure

```

1 typedef struct {
2 {
3     BOOL        isProgUpdated;
4     EMRelaunchStatus relaunchStatus;
5     BOOL        isMapUpdated;
6     BOOL        isMapDiffUpdated;
7     uint8_t     reserved[];
8 }T_SS_SM_START_ExtDataStructType;

```

isProgUpdatedPresence or absence of a program update

TRUE : Yes program update  
FALSE : No program update

relaunchStatusRelaunch state of self-service  
e\_SS\_SM\_RELAUNCH\_STATUS\_NONE : Relaunch non-occurrence (first start)  
e\_SS\_SM\_RELAUNCH\_STATUS\_SAFE : Normal Relaunch  
e\_SS\_SM\_RELAUNCH\_STATUS\_ERR : Abnormal Relaunch

isMapUpdatedPresence or absence of a map update  
TRUE : Yes map update  
FALSE : No map update

isMapDiffUpdatedThe presence or absence of the map difference updating  
TRUE : Yes map difference update  
FALSE : No map difference update

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Failure to socket connection
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred(Socket Connection/Memory Allocation/Event Control)
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[Get\\_CWORD33\\_OnStopExtInfo](#), [\\_CWORD33\\_OnStart](#)

## E\_CWORD33\_Status Get\_CWORD33\_OnStopExtInfo ([T\\_SS\\_SM\\_STOP\\_ExtDataStructType](#) & *f\_info*)

### Summary

API to get the extended information of the end parameter.

### Parameters:

out	<i>f_info</i>	<a href="#">T_SS_SM_STOP_ExtDataStructType</a> - Exit extended parameter information
-----	---------------	--

### [T\\_SS\\_SM\\_STOP\\_ExtDataStructType](#) Structure

```

1 typedef struct {
2 {
3     BOOL        isProgUpdated;
4     uint8_t     reserved[];
5 }T_SS_SM_START_ExtDataStructType;

```

isProgUpdatedPresence or absence of a program update

TRUE : Yes program update

FALSE : No program update

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Failure to socket connection
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred(Socket Connection/Memory Allocation/Event Control)
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only(None communication)

**See also:**

[Get\\_CWORD33\\_OnStartExtInfo](#), [\\_CWORD33\\_OnStop](#)

**E\_CWORD33\_Status GetBootLoaderInfoRequestToSystemManager (void \* *p\_info*)**

**Summary**

This function is called to get Boot-Loader Information.

**Parameters:**

out	<i>p_info</i>	void* - pointer for Boot-Loader Information
-----	---------------	---

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Socket connection error
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

**SS\_String GetStr (BOOL *f\_enum*)**

**Summary**

change member from BOOL type to string

**Parameters:**

in	<i>f_enum</i>	BOOL - the member what will convert farm BOOL type to string type
----	---------------	---

		<pre> 1 typedef int BOOL; 2 #define TRUE (1==1) 3 #define true (1==1) 4 #define FALSE (0==1) </pre>
--	--	---

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr (EErrorEventType *f\_enum*)**

**Summary**

change member from EErrorEventType type to string

**Parameters:**

in	<i>f_enum</i>	<p>EErrorEventType - the member what will convert farm EErrorEventType type to string type.error event type.</p> <pre> 1 enum EErrorEventType { 2   eErrorEventTypeProcessCrash = ***, 3   eErrorEventTypeHeartBeatFailure, 4   eErrorEventTypeSystemLowMemory, 5   eErrorEventTypeReserved1, // Formerly SS_SM_EVENT_ERROR_HIGH_CPU_LOAD, now HMI enum place holder. 6   eErrorEventTypeUserInvokedUserForceReset, 7   eErrorEventTypeReserved2, 8   eErrorEventTypeReserved3, 9   eErrorEventTypeUserInvokedCollectAllLogs, 10  eErrorEventTypeBootMicroReset, 11  eErrorEventTypeProcessExit, 12  eErrorEventTypeUserInvokedCollectScreenShot, 13  eErrorEventTypeUserInvokedCollect_CWORD33_Logs, 14  eErrorEventTypeEelExport, 15  eErrorEventType_CWORD33_EmmcLogs, 16  eErrorEventTypeDiagEvent, 17  eErrorEventTypeCanEvent, 18  eErrorEventTypeDtcEvent, 19  eErrorEventTypeModConnFailed, 20  eErrorEventTypeStartRespFailed, </pre>
----	---------------	--

		21 eErrorEventTypeUserInvokedCollectDevLogs, 22 eErrorEventTypeModuleInvokedResetRequest, 23 eErrorEventTypeModuleInvokedCollectDebugLogs, 24 eErrorEventTypeUserInvokedClearLogs, 25 eErrorEventTypeUserInvokedCollectNaviLog, 26 eErrorEventTypeGroupRelaunch, 27 eErrorEventTypeMaxValue 28 };
--	--	--

**Return values:**

SS_String	
-----------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr (E\_CWORD33\_SystemError *f\_enum*)**

**Summary**

change member from E\_CWORD33\_SystemError type to string

**Parameters:**

in	<i>f_enum</i>	E_CWORD33_SystemError - the member what will convert farm E_CWORD33_SystemError type to string type.The type of system error. typedef enum _E_CWORD33_SystemError { e_CWORD33_SystemErrorNone = ***, e_CWORD33_DSPHardwareReset = *** } E_CWORD33_SystemError;
----	---------------	--

**Return values:**

SS_String	
-----------	--

**Preconditions**

None.

**Change of the internal state**



The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr (EPWR\_LHC\_TYPE *f\_enum*)**

**Summary**

change member from EPWR\_LHC\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_LHC_TYPE - the member what will convert farm EPWR_LHC_TYPE type to string type.Limp home cutoff protocol type. typedef enum { epslhcINVALID = ***, epslhcDISABLED = ***, epslhcENABLED = *** } ePwrServiceLHCType, EPWR_LHC_TYPE;
----	---------------	--

**Return values:**

SS_String	
-----------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr (EPWR\_PROD\_MODE\_TYPE *f\_enum*)**

**Summary**

change member from EPWR\_PROD\_MODE\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_PROD_MODE_TYPE - the member what will convert farm EPWR_PROD_MODE_TYPE type to string
----	---------------	--

		type.The type of production mode protocol. typedef enum { epspmINVALID = ***, epspmDISABLED = ***, epspmENABLED = *** } ePwrServiceProdModeType, EPWR_PROD_MODE_TYPE;
--	--	---

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr (EPWR\_SC\_COLD\_START\_REQ\_TYPE *f\_enum*)**

**Summary**

change member from EPWR\_SC\_COLD\_START\_REQ\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_SC_COLD_START_REQ_TYPE - the member what will convert farm E_CWORD33_SystemError type to string type.The type of cold start. typedef enum { epsscrtINVALID = ***, epsscrtNOT_REQUIRED = ***, epsscrtREQUIRED = *** } EPWR_SC_COLD_START_REQ_TYPE;
----	---------------	--

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr (EPWR\_SC\_CWORD56\_BOOT\_MODE\_TYPE *f\_enum*)****Summary**

change member from EPWR\_SC\_CWORD56\_BOOT\_MODE\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_SC_CWORD56_BOOT_MODE_TYPE - the member what will convert farm EPWR_SC_CWORD56_BOOT_MODE_TYPE type to string type. The type of startup confirmation. typedef enum { eps_CWORD56_bmINVALID = ***, eps_CWORD56_bmAPPLICATION_MODE = ***, eps_CWORD56_bmPROGRAMMING_MODE = *** } EPWR_SC_CWORD56_BOOT_MODE_TYPE;
----	---------------	--

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr (EPWR\_SHUTDOWN\_TRIGGER\_TYPE *f\_enum*)****Summary**

change member from EPWR\_SHUTDOWN\_TRIGGER\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_SHUTDOWN_TRIGGER_TYPE - the member what will convert farm EPWR_SHUTDOWN_TRIGGER_TYPE type to string
----	---------------	---

	<p>type. The type of shutdown trigger. typedef enum  { epssdmsdtINVALID = ***, epssdmsdtTESTACC_OFF =  ***, epssdmsdtON_KEY = ***, epssdmsdtIGN_LOCK =  ***, epssdmsdtPWR_SAVE = ***,  epssdmsdtTMP_STARTUP = ***,  epssdmsdtDIAG_DEACTIVATION = ***,  epssdmsdtABNORMAL_VOLTAGE = ***,  epssdmsdtABNORMAL_TEMP = ***,  epssdmsdtBATTERYCUTOFF = ***,  epssdmsdtLIMPHOME = ***,  epssdmsdtHU_CAN_ERROR = ***,  epssdmsdtBODY_CAN_ERROR = ***,  epssdmsdtTRANSPORT_MODE = ***,  epssdmsdtPRODUCTION_MODE = ***,  epssdmsdtIGN_OFF = ***,  epssdmsdtGENERIC_ERROR_RESET = ***,  epssdmsdtFATAL_ERROR_RESET = ***,  epssdmsdtUSER_DATA_RESET = ***,  epssdmsdtFACTORY_DATA_RESET = ***,  epssdmsdtFAST_SLEEP_MODE = ***,  epssdmsdtNORMAL_RESET = ***,  epssdmsdtPROGUPDATE_RESET = ***, }  ePowerSrvPwrShutdownTriggerType,  EPWR_SHUTDOWN_TRIGGER_TYPE;</p>
--	--

**Return values:**

SS_String	
-----------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr (EPWR\_STARTUP\_STAGE\_TYPE *f\_enum*)**

**Summary**

change member from EPWR\_STARTUP\_STAGE\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_STARTUP_STAGE_TYPE - the member what will convert farm EPWR_STARTUP_STAGE_TYPE type to string type. The type of startup stage. typedef enum { epssusfINVALID = ***, epssusSYSTEM_SERVICES_STARTED = ***, epssusALL_SERVICES_LAUNCHED = ***, }ePowerSrvStartupStageType, EPWR_STARTUP_STAGE_TYPE;
----	---------------	---

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr (EPWR\_SYSTEM\_MODE\_INFO *f\_enum*)****Summary**

change member from EPWR\_SYSTEM\_MODE\_INFO type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_SYSTEM_MODE_INFO - the member what will convert farm EPWR_SYSTEM_MODE_INFO type to string type. The type of system mode info. typedef enum { epssinfINVALID = ***, epssinfNORMAL = ***, epssinfPROGRAMMING = ***, }ePowerSrvSystemModeInfo, EPWR_SYSTEM_MODE_INFO;
----	---------------	---

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

sync only

### See also:

## SS\_String GetStr (EPWR\_TRANSPORT\_MODE\_TYPE *f\_enum*)

### Summary

change member from EPWR\_TRANSPORT\_MODE\_TYPE type to string

### Parameters:

in	<i>f_enum</i>	EPWR_TRANSPORT_MODE_TYPE - the member what will convert from EPWR_TRANSPORT_MODE_TYPE type to string type. The type of transport mode protocol. typedef enum { epstmINVALID = ***, epstmDISABLED = ***, epstmENABLED = *** } ePwrServiceTransportModeType, EPWR_TRANSPORT_MODE_TYPE;
----	---------------	--

### Return values:

SS_String	
-----------	--

### Preconditions

None.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

sync only

### See also:

## SS\_String GetStr (EPWR\_USER\_MODE\_CHANGE\_REASON\_TYPE *f\_enum*)

### Summary

change member from [EPWR\\_USER\\_MODE\\_CHANGE\\_REASON\\_TYPE](#) type to string

**Parameters:**

in	<i>f_enum</i>	<a href="#">EPWR_USER_MODE_CHANGE_REASON_TYPE</a> - the member what will convert farm <a href="#">EPWR_USER_MODE_CHANGE_REASON_TYPE</a> type to string type. The type of user mode change reason.
----	---------------	---

**Return values:**

<i>SS_String</i>	
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**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr (EPWR\_USER\_MODE\_TYPE *f\_enum*)****Summary**

change member from EPWR\_USER\_MODE\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_USER_MODE_TYPE - the member what will convert farm EPWR_USER_MODE_TYPE type to string type. The type of user mode. <pre>typedef enum { epsumINVALID = ***, epsumOFF = ***, epsumON = ***, } ePwrServiceUserModeType, EPWR_USER_MODE_TYPE;</pre>
----	---------------	--

**Return values:**

<i>SS_String</i>	
------------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr (EPWR\_WAKEUP\_FACTOR\_TYPE *f\_enum*)****Summary**

change member from EPWR\_WAKEUP\_FACTOR\_TYPE type to string

**Parameters:**

in	<i>f_enum</i>	EPWR_WAKEUP_FACTOR_TYPE - the member what will convert farm EPWR_WAKEUP_FACTOR_TYPE type to string type. The type of startup reason. typedef enum { epswfINVALID = ***, epswfTESTACC = ***, epswfON_KEY = ***, epswfIGN_ACC = ***, epswfDR_OPEN_CLOSE = ***, epswfDX_ACTIVATION = ***, epswfETHERNET = ***, epswfPASS_ACTIVATION = ***, epswfSPVACTIVATION = ***, epswfUSER_DATA_RESET = *** } ePowerSrvWakeupFactors, EPWR_WAKEUP_FACTOR_TYPE;
----	---------------	---

**Return values:**

<i>SS_String</i>	
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**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr (E\_CWORD33\_Status *f\_enum*)****Summary**

change member from E\_CWORD33\_Status type to string



**Parameters:**

in	<i>f_enum</i>	<p>E_CWORD33_Status - the member what will convert farm E_CWORD33_Status type to string type. Status and return types. typedef enum e_CWORD33_Status { e_CWORD33_StatusEmptyMediaList = -10, ///  Empty media list  e_CWORD33_StatusSessionLimitMaxedOut = -9, ///  Maximum session limit reached  e_CWORD33_StatusDbRecNotFound = -8, ///  Database record not found  e_CWORD33_StatusDbResultError = -7, ///  Database result error e_CWORD33_StatusDbExecuteFail = -6, ///  Database execute fail  e_CWORD33_StatusSemCloseFail = -5, ///  Semaphore close failed  e_CWORD33_StatusSemUnlockFail = -4, ///  Semaphore unlock failed  e_CWORD33_StatusSemLockFail = -3, ///  Semaphore lock failed e_CWORD33_StatusFail = -2, ///  Failed e_CWORD33_StatusErrOther = -1, ///  Unknown error e_CWORD78_StatusOK = ***, ///  Success / Pass / OK e_CWORD33_StatusInvlBuf = ***, ///  Invalid buffer e_CWORD33_StatusInvlHandle = ***, ///  Invalid handle  e_CWORD33_StatusInvlHndlType = ***, ///  Invalid handle type e_CWORD33_StatusInvlQName = ***, ///  Invalid messasge queue name  e_CWORD33_StatusMsgQFull = ***, ///  Message queue full e_CWORD33_StatusInvlNotification = ***, ///  The Notification event not present  e_CWORD33_StatusInvlParam = ***, ///  Invalid parameter e_CWORD33_StatusInvlBufSize = ***, ///  Buf size too small e_CWORD33_StatusInvlID = ***, ///  Unrecognized ID  e_CWORD33_StatusCannotRelease = ***, ///  Cannot release resource e_CWORD33_StatusBadConnection = ***, ///  Could not locate resource  e_CWORD33_StatusExit = ***, ///  Normal application termination e_CWORD33_StatusNotImplemented = ***, ///  incomplete feature  e_CWORD33_StatusThreadBusy = ***, ///  Joined thread is already being joined  e_CWORD33_StatusThreadSelfJoin = ***, ///  Thread is joining itself e_CWORD78_StatusThreadInvalidVal = ***, ///  Invalid value passed  e_CWORD33_StatusThreadNotExist = ***, ///  The thread does not exist e_CWORD33_StatusFault = ***, ///  A fault occurred while attempting to make call</p>
----	---------------	---

		<pre>e_CWORD33_StatusServNotFound = ***, /// Service not present in serv dir e_CWORD33_StatusServerInUse = ***, /// Service already processing 1 client request e_CWORD33_StatusDbIndexing = ***, /// Database Indexing in progress e_CWORD33_StatusNullPointer = ***, e_CWORD33_StatusMsgNotProcessed = ***, e_CWORD33_StatusFileLoadSuccess = ***, /// File Load Success e_CWORD33_StatusFileLoadError = ***, /// File Load Error e_CWORD33_StatusAccessError = ***, /// Error when accessing resource e_CWORD33_StatusDuplicate = ***, /// Duplicate entry e_CWORD33_StatusMsgQEmpty = ***, /// Message queue empty e_CWORD33_StatusThreadAlreadyRunning = ***, e_CWORD33_StatusErrNoEBADF = ***, /// Bad file descriptor e_CWORD33_StatusErrNoEAGAIN = ***, /// Resource unavailable, try again e_CWORD33_StatusErrNoEINTR = ***, /// Interrupted system call e_CWORD33_StatusSessionErr = ***, /// Error in session handling e_CWORD33_StatusDBCORRUPT = ***, /// Database corrupt e_CWORD33_StatusDBFileNotFound = ***, /// Database file not found } E_CWORD33_Status, *PE_CWORD33_Status;</pre>
--	--	---

**Return values:**

<i>SS_String</i>	
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**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**

**SS\_String GetStr ([ESMBootModelInfo](#) *f\_enum*)**

**Summary**

change member from ESMBootModelInfo type to string

**Parameters:**

in	<i>f_enum</i>	ESMBootModelInfo - the member what will convert farm ESMBootModelInfo type to string type.The type of boot mode information. typedef enum { e_SS_SM_BOOT_MODE_INVALID = -1 , e_SS_SM_BOOT_MODE_APPLICATION , e_SS_SM_BOOT_MODE_PROGRAMMING }ESMBootModelInfo;
----	---------------	---

**Return values:**

<i>SS_String</i>	
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**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr ([ESMCpuResetReason](#) *f\_enum*)****Summary**

change member from ESMCpuResetReason type to string

**Parameters:**

in	<i>f_enum</i>	ESMCpuResetReason - the member what will convert farm ESMCpuResetReason type to string type.The type of CPU reset reason. typedef enum { e_SS_SM_CPU_RESET_REASON_INVALID = -1 , e_SS_SM_CPU_RESET_REASON_NORMAL = ** , e_SS_SM_CPU_RESET_REASON_DATA_RESET , e_SS_SM_CPU_RESET_REASON_USER_FORCE_RESET , e_SS_SM_CPU_RESET_REASON_GENERIC , e_SS_SM_CPU_RESET_REASON_GENERIC_ERR = e_SS_SM_CPU_RESET_REASON_GENERIC , e_SS_SM_CPU_RESET_REASON_DSP_ERR , e_SS_SM_CPU_RESET_REASON_IMMRESET_NORMAL , e_SS_SM_CPU_RESET_REASON_CRITICAL_ERR }ESMCpuResetReason;
----	---------------	--

**Return values:**

<i>SS_String</i>	
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**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****SS\_String GetStr ([SS\\_SystemManagerProtocol](#) *f\_enum*)****Summary**

change member from [SS\\_SystemManagerProtocol](#) type to string

**Parameters:**

in	<i>f_enum</i>	<a href="#">SS_SystemManagerProtocol</a> - the member what will convert farm <a href="#">SS_SystemManagerProtocol</a> type to string type.The type of system manager protocol.
----	---------------	--

**Return values:**

<i>SS_String</i>	
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**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:****HANDLE GetSystemManagerSessionHandle (void )**

GetSystemManagerSessionHandle.

**Note:**

This function returns the session handle with System Manager

**Returns:**

HANDLE - A session handle with System Manager

**E\_CWORD33\_Status OnSystemManagerDebugDump (HANDLE *hApp*)**

DebugDump request callback function.

**Note:**

This function is called when System Manager requests the receiving application to generate their debugdump.

**Parameters:**

<i>hApp</i>	
-------------	--

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status RegisterBootMicroLogRequestCb (HANDLE *hApp*, CbFuncPtr *fpOnCmd*)**

RegisterBootMicroLogRequestCb.

This function is called by Logging Shadow to register a callback function for the boot micro log request that may be generated by System Manager when an error event occurs.

**Parameters:**

in	<i>hApp</i>	_CWORD3_002 Framework Application Handle
in	<i>fpOnCmd</i>	Call back function with the signature: E_CWORD33_Status fct(HANDLE <i>hApp</i> );

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status RegisterSMSessionAckCallback (E\_CWORD33\_Status(\*) (HANDLE) *CallbackPtr*)****Summary**

API for setting the \_CWORD33\_OnStop response

**Parameters:**

in	<i>CallbackPtr</i>	E_CWORD33_Status - Pointer to a callback function
----	--------------------	---

TRUE : Not carried out in the automatic response.  
 FALSE : Carry out the response in automatic. (Default)

**Return values:**

VOID	None
------	------

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

**E\_CWORD33\_Status Send\_CWORD33\_OnStopResponseToSystemManager  
 (E\_CWORD33\_Status *f\_eStatus*)**

**Summary**

API to send a \_CWORD33\_OnStop response

**Parameters:**

in	<i>f_eStatus</i>	E_CWORD33_Status - End status
----	------------------	-------------------------------

e\_CWORD33\_StatusOK : End processing completion  
 e\_CWORD33\_StatusFail : End processing uncompleted

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget only

### See also:

None

### **E\_CWORD33\_Status Send\_CWORD56\_HeartBeatRequestToSystemManager (EPWR HB REQ MSG STRUCT *f\_HbReq*)**

Send\_CWORD56\_HeartBeatRequestToSystemManager.

### Note:

This function forwards a *CWORD56* heartbeat request received by power services from the power shadow to System Manager.

### Parameters:

in		
----	--	--

### **E\_CWORD33\_Status SendBootMicroLogResponseToSystemManager (std::string *f\_logString*)**

SendBootMicroLogResponseToSystemManager.

This function is called by Logging Shadow to provide a string representation of the binary boot-micro log data.

### Returns:

Status *E\_CWORD33\_Status* - success or error

### **E\_CWORD33\_Status SendBootMicroResetNotificationToSystemManager (eSMBootMicroResetReason *ResetReason*)**

SendBootMicroResetNotificationToSystemManager.

### Parameters:

<i>ResetReason</i>	Enumerated boot micro reset reason.
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This function is called by Logging Shadow to inform System Manager of a boot micro reset condition.

## **E\_CWORD33\_Status SendBootModeSetRequestToSystemManager ([ESMBootModeInfo](#) *hostBootMode*)**

### **Summary**

API to record the mode of the next boot in a non-volatile area.

### **Parameters:**

in	<i>hostBootMode</i>	ESMBootModeInfo - BOOT mode information
----	---------------------	---

e\_SS\_SM\_BOOT\_MODE\_APPLICATION : Normal start

e\_SS\_SM\_BOOT\_MODE\_PROGRAMMING : Version up start

### **Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### **Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

### **Change of the internal state**

The internal state is not changed.

### **Classification**

Public

### **Type**

Method only

### **See also:**

None

## **E\_CWORD33\_Status SendCANLoggingRequestToSystemManager (void )**

SendCANLoggingRequestToSystemManager.



**Note:**

This function is called by logger to initiate log artifact collection and storage when signaled via CAN.

**Returns:**

Status E\_CWORD33\_Status - success or error

**void SendDebugDumpResponseToSystemManager (BOOL f\_bFormatStrRequired, PCSTR f\_cFormat, ...) E\_CWORD33\_Status**  
**Send\_CWORD33\_EmmcLogsRequestToSystemManager(std E\_CWORD33\_Status**  
**SendClearLogsRequestToSystemManager ([TSystemManagerClearLogsInfo](#) \* f\_info)**

**Summary**

Send a debug dump response to system\_manager

**Parameters:**

in	<i>f_bFormatStrRequired</i>	BOOL Specify whether to dump the application name or not
in	<i>f_cFormat</i>	PCSTR Display format for the dump (the same character strings format as the printf format)
in	<i>arg_list</i>	... Dump data in line with f_cFormat format

*f\_bFormatStrRequired*  
 true Dump the application name  
 false Do not dump the application name

**Return values:**

<i>None</i>	
-------------	--

**Precondition**

None

**Change in the internal status**

The change in the internal status does not occur by this API.

**Classification**

Public

**Type**

Fire and Forget only

**See also:****Summary**

API to request a copy to the specified path of the LOG file of the built-in non-volatile area.

**Parameters:**

in	<i>f_path</i>	std::string - LOG destination file PATH
----	---------------	---

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldBuf</i>	Invalid buffer
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Method only

**See also:**

[SendClearLogsRequestToSystemManager](#)

**Summary**

API to clear the stored in the built-in non-volatile area log.

**Parameters:**

in	<i>f_info</i>	TSystemManagerClearLogsInfo - A pointer to the LOG clear information
----	---------------	--

TSystemManagerClearLogsInfo Structure

```

1 typedef struct T_SystemManagerClearLogsInfo{
2 {
3   void *rsv;
4 }TSystemManagerClearLogsInfo;
```

rsv Reserve area

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle

<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget x Sync

### See also:

None

**E\_CWORD33\_Status SendCpuResetRequestToSystemManager** ([ESMCpuResetReason](#)  
*l\_eCpuResetReason*, *std::string f\_messageStr* = "", *std::string f\_suffixStr* = "")

### Summary

API to request LOG saved to the internal non-volatile area

### Parameters:

in	<i>l_eCpuResetReason</i>	ESMCpuResetReason - Reset factor
in	<i>f_messageStr</i>	std::string - Abnormal message string
in	<i>f_suffixStr</i>	std::string - Suffix string of abnormal LOG file

enum ESMCpuResetReason Variable

*e\_SS\_SM\_CPU\_RESET\_REASON\_NORMAL* : Normal Reset

*e\_SS\_SM\_CPU\_RESET\_REASON\_DATA\_RESET* : Data Reset

*e\_SS\_SM\_CPU\_RESET\_REASON\_USER\_FORCE\_RESET* : User forced reset

*e\_SS\_SM\_CPU\_RESET\_REASON\_GENERIC\_ERR* : Generic Error reset

*e\_SS\_SM\_CPU\_RESET\_REASON\_DSP\_ERR* : DSP Error

*e\_SS\_SM\_CPU\_RESET\_REASON\_IMMRESET\_NORMAL* : Reset immediately

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle

<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvlBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

**E\_CWORD33\_Status SendDiagLoggingRequestToSystemManager (std::string *f\_copyDestPathStr*)**

SendDiagLogEventRequestToSystemManager.

**Note:**

This function is called by logger to initiate log artifact collection and storage on behalf of diagnostic services.

**Parameters:**

<i>f_copyDestPathStr</i>	
--------------------------	--

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendDTCLoggingRequestToSystemManager (UI\_32 *f\_dtc*)**

SendDTCLoggingRequestToSystemManager.

**Note:**

This function is called by logger to initiate log artifact collection and storage when signaled via diagnostic command.

**Parameters:**

<i>f_dtc</i>	Diagnostic trouble code.
--------------	--------------------------

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendEelExportRequestToSystemManager (std::string *f\_path*)**

SendEelExportRequestToSystemManager.

**Note:**

This function forwards the Device Detection EEL\_export trigger received by SS Logger to System Manager.

**Parameters:**

<i>f_path</i>	Destination path for the trigger artifacts.
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**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendInitCompReportToSystemManager (void )**

SendInitCompReportToSystemManager.

**Note:**

This function is called to send init comp report to System Manager

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendLogArtifactRequestToSystemManager (EArtifactId *f\_artifactId*)**

SendLogArtifactRequestToSystemManager.

**Note:**

This function is call by SS\_Logger to request SM to acquire and

**Parameters:**

in	<i>f_artifactId,enumerated</i>	artifact number.
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**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendLogCompleteRequestToSystemManager (E\_CWORD33\_Status  
f\_eStatus = e\_CWORD33\_StatusOK)**

SendLogCompleteRequestToSystemManager.

**Note:**

This function is call by SS\_Logger when the logging process has completed and no additional request for artifacts will be generated.

**Parameters:**

<i>none.</i>	
--------------	--

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendLogStartRequestToSystemManager (EErrorEventType  
f\_errorEventType)**

SendLogStartRequestToSystemManager.

**Note:**

This function is call by SS\_Logger when the logging process has completed and no additional request for artifacts will be generated.

**Parameters:**

<i>none.</i>	
--------------	--

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendShutdownToSystemManager ([Pwr ServiceSetInterface](#) \* pData)**

SendShutdownToSystemManager.

**Note:**

This function is called to send Shutdown command to System Manager

**Parameters:**

in	<i>pData</i>	<a href="#">Pwr ServiceSetInterface</a> *pData - Pointer to Shutdown Command data
----	--------------	---

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendStartupConfirmationToSystemManager**  
**([StartupConfirmationMsgStrut](#) & *l\_startupConfirmationMsg*)**

SendStartupConfirmationToSystemManager.

**Note:**

This function is called to send the startup confirmation information to System Manager

**Parameters:**

in	<i>l_startupConfirmationMsg</i>	<a href="#">StartupConfirmationMsgStrut</a> & <i>l_startupConfirmationMsg</i> - startup confirmation data
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**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendSystemErrorToSystemManager (E\_CWORD33\_SystemError**  
***f\_systemError*)**

SendSystemErrorToSystemManager.

**Note:**

This function is called by an application via Native Services to send notice of a critical error to System Manager when a non recoverable run-time error is encountered.

**Parameters:**

in		
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**E\_CWORD33\_Status SendSystemModeRequestToSystemManager (void )**

SendSystemModeRequestToSystemManager.

**Note:**

This function is called to send system mode request to System Manager

**Returns:**

Status E\_CWORD33\_Status - success or error

**E\_CWORD33\_Status SendUserInvokedLoggingRequestToSystemManager ([eSMUserLogType](#)**  
***f\_userInvokedLogType*, std::string *f\_messageStr* = "", std::string *f\_suffixStr* = "")**

**Summary**

API to request LOG saved to the internal non-volatile area

**Parameters:**

in	<i>f_userInvokedLogType</i>	<a href="#">eSMUserLogType</a> - User invoked log type.
in	<i>f_messageStr</i>	std::string - Abnormal message string
in	<i>f_suffixStr</i>	std::string - Suffix string of abnormal LOG file

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[SendClearLogsRequestToSystemManager](#)

**E\_CWORD33\_Status SendVarCodeDataToSystemManager (UI\_32 *f\_uiLength*, void \* *f\_data*)****Summary**

In debugging, API to log the character information of variable code.

**Parameters:**

in	<i>f_uiLength</i>	UI_32 - Data length of <i>f_data</i>
in	<i>f_data</i>	void - Variable code(char type)

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldBuf</i>	Invalid buffer
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle



<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget only

**See also:**

[SendClearLogsRequestToSystemManager](#)

**E\_CWORD33\_Status SendWakeUpToSystemManager ([wakeInfo](#) \* *pData*)**

SendWakeUpToSystemManager.

**Note:**

This function is called to send the Wakeup command to System Manager

**Parameters:**

in	<i>pData</i>	wakeInfo *pData - Pointer to Wakeup Command data
----	--------------	--

**Returns:**

Status E\_CWORD33\_Status - success or error

**VOID Set\_UseStopCompleteNotificationVs\_CWORD33\_OnStopFnc\_StateVar (BOOL *f\_SetTrue*)**

**Summary**

API for setting the \_CWORD33\_OnStop response

**Parameters:**

in	<i>f_setTrue</i>	BOOL - Response presence or absence of specified
----	------------------	--

TRUE : Not carried out in the automatic response.

FALSE : Carry out the response in automatic. (Default)

**Return values:**

VOID	None
------	------

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

**E\_CWORD33\_Status SetBootLoaderInfoRequestToSystemManager (ESMBootInfoType *f\_type*, UI\_32 *f\_value*)**

**Summary**

API to perform a write request to the specified field of shared memory with BootLoader.

**Parameters:**

in	<i>f_type</i>	ESMBootInfoType - Configuration information type
in	<i>f_value</i>	UI_32 - Set value

enum ESMBootInfoType Variable

e\_SS\_SM\_BOOT\_INFO\_MDUPDATE : Writing to LBM\_RAM\_t.mdUpdate

e\_SS\_SM\_BOOT\_INFO\_SDUPDATE : Writing to LBM\_RAM\_t.sdUpdate

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvlParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvlHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvlHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvlBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Socket connection error
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

## Preconditions

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

## Change of the internal state

The internal state is not changed.

## Classification

Public

## Type

Sync only(None communication)

## See also:

None

## E\_CWORD33\_Status SetDataResetModeToSystemManager ([ESMDataResetModelInfo dataResetMode](#))

## Summary

API to record the data reset mode of the next boot in a non-volatile area.

## Parameters:

in	<i>dataResetMode</i>	ESMDataResetModelInfo - Data reset mode information
----	----------------------	---

e\_SS\_SM\_DATA\_RESET\_MODE\_NONE : Do not initialize  
e\_SS\_SM\_DATA\_RESET\_MODE\_USER : User data initialization  
e\_SS\_SM\_DATA\_RESET\_MODE\_FACTORY : Factory initialization

## Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Socket connection error
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

## Preconditions

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget Method

### See also:

[SetProgUpdateStateToSystemManager](#)

## **E\_CWORD33\_Status SetNextWakeupTypeToSystemManager ([ESMNextWakeupType](#) *f\_wakeupType*)**

### Summary

Set the next wakeup type.

### Parameters:

in	<i>f_wakeupType</i>	ESMNextWakeupType - Wakeup type
----	---------------------	---------------------------------

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred

### Preconditions

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only

### See also:

None

## **E\_CWORD33\_Status SetProgUpdateStateToSystemManager ([SMProgUpdateState](#) *progUpdateState*)**

### Summary

API to record the program update state in the non-volatile information.

**Parameters:**

in	<i>updateState</i>	SMProgUpdateState - Program update status
----	--------------------	---

SS\_SM\_PROG\_UPDATE\_STATE\_UPDATED : Program update

SS\_SM\_PROG\_UPDATE\_STATE\_MAP\_UPDATED : Map update

SS\_SM\_PROG\_UPDATE\_STATE\_MAPDIFF\_UPDATED : Map difference updating

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Socket connection error
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[SetDataResetModeToSystemManager](#), [Get\\_CWORD33\\_OnStartExtInfo](#),

[Get\\_CWORD33\\_OnStopExtInfo](#)

**E\_CWORD33\_Status SetWakeupOrderToSystemManager (std::string *f\_orderName*)****Summary**

API to save the boot order.

**Parameters:**

in	<i>f_orderName</i>	std::string - Boot order defined name
----	--------------------	---------------------------------------

Boot order defined name, it is 0-32byte.

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusBadConnection</i>	Socket connection error
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

Dispatcher for the System Manager is generated, and Availability of the service is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

---

**Variable Documentation**

**const long iProcess\_DEFAULT\_PROCESS\_FLAGS**

**Initial value:**= POSIX\_SPAWN\_SETSCHEDULER  
| POSIX\_SPAWN\_SETSCHEDPARAM

**Task\_manager**

- struct [T PRIM PRM](#)
- struct [T PRIM MONITOR PRM](#)
- struct [PRIM SHAREDATA TBL](#)
- struct [PRIM FORK TBL](#)
- struct [PRIM EXFUNC TBL](#)
- struct [PRIM BACKUPCHK TBL](#)
- struct [PRIM ACCOFF TBL](#)

```

struct TSKM\_GSTEP\_REQ\_INFO\_t
struct TSKM\_GSTEP\_t
struct TSKM\_GSTEP\_CTX\_t
struct TSKM\_NV\_HEADER\_t
struct TSKM\_NV\_FOOTER\_t
struct TSKM\_NV\_BODY\_t
struct TSKM\_NV\_INFO\_t
struct TSKM\_EV\_PRI\_REQ\_WAKEUP\_PRM\_t
struct TSKM\_EV\_PRI\_REQ\_DOWN\_PRM\_t
struct TSKM\_EV\_PRI\_REP\_WAKEUP\_COMP\_PRM\_t
struct TSKM\_EV\_PRI\_REP\_DOWN\_COMP\_PRM\_t
struct TSKM\_EV\_PRI\_REP\_CONNECT\_PRM\_t
struct TSKM\_EV\_PRI\_RES\_WAKEUP\_PRM\_t
struct TSKM\_EV\_PRI\_RES\_DOWN\_PRM\_t
struct TSKM\_EV\_PRI\_EX\_RES\_DEBUGDUMP\_PRM\_t
struct TSKM\_EV\_LCL\_CHG\_SVC\_STATE\_PRM\_t
struct \_TSKM\_EVENT\_INFO\_t
union \_TSKM\_EVENT\_INFO\_t.prm
struct TSKM\_SVC\_ATTR\_t
struct TSKM\_SVC\_CTX\_t
struct TSKM\_SVCS\_CTX\_t
struct TSKM\_SVC\_CTL\_t
struct TSKM\_SVC\_INFO\_t
struct TSKM\_LOGGING\_INFO\_t
struct TSKM\_ERROR\_REBOOT\_t
struct TSKM\_DATAINIT\_t
struct TSKM\_WAKEUP\_ORDER\_t

```

## Macros

```

#define INI_SUCCESS 0 /* */
#define INI_FALSE -1 /* */
#define INI_FD_MAX 3
#define INI_INITCOMP_NONE 0x0000000000000000LLU
#define INI_INITCOMP_ON_START 0x0000000000000001LLU /* ON_START */
#define INI_INITCOMP_NVM_ACCESS 0x0000000000000002LLU /* NVM ACCESS */
#define INI_INITCOMP_TEST0 0x1000000000000000LLU /* TEST */
#define INI_INITCOMP_TEST1 0x2000000000000000LLU /* TEST */
#define INI_INITCOMP_TEST2 0x4000000000000000LLU /* TEST */
#define INI_INITCOMP_TEST3 0x8000000000000000LLU /* TEST */
#define INI_TERMCOMP_NONE 0x0000000000000000LLU
#define INI_TERMCOMP_ACTIVITYMGR 0x0000000000000001LLU /* ActivityManager */
#define INI_TERMCOMP_RESIDENT 0x0000000000000002LLU /* SVC */
#define INI_TERMCOMP_TRANSIENT 0x0000000000000004LLU /* SVC */
#define INI_TERMCOMP_TEST0 0x1000000000000000LLU /* TEST */
#define INI_TERMCOMP_TEST1 0x2000000000000000LLU /* TEST */
#define INI_TERMCOMP_TEST2 0x4000000000000000LLU /* TEST */
#define INI_TERMCOMP_TEST3 0x8000000000000000LLU /* TEST */
#define INI_DEBUGDUMP(args...) _INI_DEBUGDUMP(TRUE, ## args)

```

```

#define INI_DEBUGDUMP_RAW(args...) _INI_DEBUGDUMP(FALSE, ## args)
#define SRAM_INIT (int)0 /* */
#define SRAM_CHK (int)1 /* */
#define SRAM_MAPVER (int)2 /* Version */
#define SRAM_MAPVER_CHK (int)3 /* Version + */
#define SRAM_SYSTEM_INIT (int)4 /* #37 */
#define SRAM_CONFIG_INIT (int)5 /* #37 */
#define SRAM_CHK_OK (int)0 /* SRAM */
#define SRAM_CHK_CHG (int)1 /* SRAM */
#define SRAM_CHK_NG (int)-1 /* SRAM */
#define PRIM_SHM_NAME_MAX 32 /* */
#define SYS_RESET (int)321 /* */
#define SYS_ONLY_RESET (int)2 /* #9# */
#define TSKM_ID RPC_ID
#define TSKM_Init(p_tskmId) RPC_START_CLIENT(p_tskmId)
#define TSKM_End(tskmId) RPC_end(tskmId)
#define TSKM_DATA_INIT_FUNC(ServiceName, ArgName) E_CWORD33_Status tskm_ ##
    ServiceName ## _data_init(T_SS_SM_START DataStructType* ArgName)
#define TSKM_CFG_WAIT_SHUTDOWN 10000
#define TSKM_CFG_TOUCH_TIMEOUT 2
#define TSKM_ST_ACCOFF 0x01000000U
#define TSKM_ST_ACCON 0x02000000U
#define TSKM_ST_WAKEUP 0x02010000U
#define TSKM_ST_RUNNING 0x02020000U
#define TSKM_ST_DOWN 0x02040000U
#define TSKM_STATE_MASK0 0xFF000000U
#define TSKM_STATE_MASK1 0xFFFF0000U
#define TSKM_STATE_MASK2 0xFFFFFFFF0U
#define TSKM_STATE_MASK3 0xFFFFFFFFFU
#define TSKM_GSTEP_NONE 0x00000000U
#define TSKM_GSTEP_BUPCHK 0x00000001U
#define TSKM_LSTEP_LAST 0xFFFFFFFF0U
#define TSKM_LSTEP_SHM 0xFFFFFFFF1U
#define TSKM_LSTEP_BUPCHK 0xFFFFFFFF2U
#define TSKM_LSTEP_ALL 0xFFFFFFFF3U
#define TSKM_NV_STRUCT_VERSION "v000"
#define TSKM_SVC_RESERVE_MAX (8)
#define TSKM_NV_SIZE_ALL (512)
#define TSKM_NV_SIZE_HEADER (32)
#define TSKM_NV_SIZE_FOOTER (32)
#define TSKM_NV_SIZE_BODY (TSKM_NV_SIZE_ALL - TSKM_NV_SIZE_HEADER -
    TSKM_NV_SIZE_FOOTER)
#define TSKM_EV_BOOTINFO_SIZE sizeof(T_SS_SM_START DataStructType)
#define TSKM_EV_EXTBOOTINFO_SIZE sizeof(T_SS_SM_START ExtDataStructType)
#define TSKM_EV_DEBUGDUMP_SIZE 4096
#define TSKM_SVC_WAIT_REQ_MAX (8)
#define TSKM_SVCID_NONE 0x00000000U
#define TSKM_SVCID_TE_RESIDENT 0x00000001U

```



```

#define TSKM_SVCID_TE_TRANSIENT 0x00000002U
#define TSKM_SVCID_ACTIVITYMGR 0x00000003U
#define TSKM_SVCID_SYSVUP 0x00000004U
#define TSKM_SVCID_CWORD52_VUP 0x00000005U
#define TSKM_SVCID_ROOTFSVUP 0x00000006U
#define TSKM_SVCID_VUPPROGUI 0x00000007U
#define TSKM_SVCID_NORVUP 0x00000008U
#define TSKM_SVCID_CWORD58_ 0x00000009U
#define TSKM_SVCID_SYSUPDATE 0x0000000AU
#define TSKM_SVCID_NANDUPDATE 0x0000000BU
#define TSKM_SVCID_BTPHONESRV 0x0000000CU
#define TSKM_SVCID_BTPBKSrv 0x0000000DU
#define TSKM_SVCID_BTMSGSRV 0x0000000EU
#define TSKM_SVCID_DTVVUPSRV 0x0000000FU
#define TSKM_SVCID_XMVUPSRV 0x00000020U
#define TSKM_ERR_t int32_t
#define TSKM_E_OK 0
#define TSKM_E_PAR 1
#define TSKM_E_STATE 2
#define TSKM_E_PERMIT 3
#define TSKM_E_ALREADY 4
#define TSKM_E_RETRY 5
#define TSKM_E_NG 6
#define TSKM_BOOL_t int32_t
#define TSKM_TRUE 1
#define TSKM_FALSE 0
#define TSKM_RSV_t int
#define TSKM_LOGGING_MSG_STR_SIZE 64
#define TSKM_ORDER_NAME_MAX 32

```

### Typedefs

```

typedef struct T\_PRIM\_PRM T_PRIM_PRM
typedef unsigned int PRI_DWORD
typedef uint32_t TSKM_STATE_t
typedef uint32_t TSKM_GLOBAL_STEP_t
typedef uint32_t TSKM_LOCAL_STEP_t
typedef struct TSKM\_EVENT\_INFO\_t TSKM_EVENT_INFO_t
typedef uint32_t TSKM_SVCID_t

```

### Enumerations

```

enum _PRIM_FORK_STEP { PRIM_STEPFORK_FIRST = ***, PRIM_STEPFORK_SECOND,
    PRIM_STEPFORK_THIRD, PRIM_STEPFORK_FOURTH, PRIM_STEPFORK_FIFTH,
    PRIM_STEPFORK_SIXTH, PRIM_STEPFORK_SEVENTH, PRIM_STEPFORK_EIGHTH,
    PRIM_STEPFORK_NINTH, PRIM_STEPFORK_TENTH, PRIM_STEPFORK_MAX }
enum _PRIM_ACCOFF_STEP { PRIM_ACCOFF_FIRST = ***, PRIM_ACCOFF_SECOND,
    PRIM_ACCOFF_THIRD, PRIM_ACCOFF_FOURTH, PRIM_ACCOFF_FIFTH,
    PRIM_ACCOFF_MAX }

```

```

enum TSKM_EVENT_t { TSKM_EV_NOP, TSKM_EV_PRI_REQ_WAKEUP,
    TSKM_EV_PRI_REQ_DOWN, TSKM_EV_PRI_REQ_TOUCH,
    TSKM_EV_PRI_REQ_DEBUGDUMP, TSKM_EV_PRI_REP_LOWMEM,
    TSKM_EV_PRI_REP_WAKEUP_COMP, TSKM_EV_PRI_REP_DOWN_COMP,
    TSKM_EV_PRI_REP_CONNECT, TSKM_EV_PRI_REP_DISCONNECT,
    TSKM_EV_PRI_RES_WAKEUP, TSKM_EV_PRI_RES_DOWN,
    TSKM_EV_PRI_RES_DEBUGDUMP, TSKM_EV_PRI_REQ_EXIT, TSKM_EV_SVC_REP_TERM,
    TSKM_EV_API_REQ_REBOOT, TSKM_EV_API_REQ_SVC_CTL,
    TSKM_EV_API_REQ_SVC_DISABLE, TSKM_EV_LCL_REQ_STOP,
    TSKM_EV_LCL_CHG_SVC_STATE, TSKM_EV_LCL_REQ_SDUMP,
    TSKM_EV_LCL_REP_TIMEOUT, TSKM_EV_LCL_REP_POLLING,
    TSKM_EV_LCL_REP_LOWMEM, TSKM_EV_LCL_REQ_TRANS_STEP }
enum TSKM_PROTOCOL_t { TSKM_DATAINIT_REQ = ***, TSKM_DATAINIT_RESP,
    TSKM_TRANS_STEP_REQ }
enum TSKM_SVC_TYPE_t { TSKM_SVC_TYPE_NATIVE, TSKM_SVC_TYPE_UNKNONW }
enum TSKM_SVC_POLICY_t { TSKM_SVC_POLICY_TSS, TSKM_SVC_POLICY_RR,
    TSKM_SVC_POLICY_FIFO }
enum TSKM_SVC_LC_t { TSKM_SVC_LC_ALWAYS, TSKM_SVC_LC_ALWAYS_RECOVERABLE,
    TSKM_SVC_LC_DYNAMIC }
enum TSKM_SVC_ASSIGN_CPU_t { TSKM_SVC_ASSIGN_CPU_AUTO = ***,
    TSKM_SVC_ASSIGN_CPU_0 = ***, TSKM_SVC_ASSIGN_CPU_1 = ** }
enum TSKM_SVC_STATE_t { TSKM_SVC_DORMANT, TSKM_SVC_WAITCONNECT,
    TSKM_SVC_WAKEUP, TSKM_SVC_RUNNING, TSKM_SVC_DOWN, TSKM_SVC_FINDOWN,
    TSKM_SVC_DISABLE }
enum TSKM_SVC_WAIT_STATE_t { TSKM_SVC_WAIT_NONE, TSKM_SVC_WAIT_TRANSIENT,
    TSKM_SVC_WAIT_BOTH }
enum TSKM_SVC_CMD_t { TSKM_SVC_CMD_NOP, TSKM_SVC_CMD_EXEC,
    TSKM_SVC_CMD_ENABLE, TSKM_SVC_CMD_DISABLE, TSKM_SVC_CMD_RESERVE }
enum TSKM_BOOT_t { TSKM_BOOT_NORMAL, TSKM_BOOT_FACTRESET,
    TSKM_BOOT_USERRESET, TSKM_BOOT_VERSIONUP }
enum TSKM_LOGGING_TYPE_NORMAL_t { TSKM_LOGGING_TYPE_MODULE_LOGS,
    TSKM_LOGGING_TYPE_GRP_RELAUNCH }
enum TSKM_ERROR_REBOOT_TYPE_t { TSKM_ERROR_REBOOT_NORMAL }
enum TSKM_DATAINIT_TYPE_t { TSKM_DATAINIT_TYPE_USER }

```

## Functions

```

int INI\_Main (T_PRIM_PRM *p_prm, int argc, char *argv[])
void INI\_ExitStart (void *rsv)
void INI\_ExitDone (int status)
void * INI\_GetPrivate ()
void * INI\_GetHandle ()
int32_t INI\_SetMonitorTimeout (uint32_t timeout)
int32_t INI\_StepForkComp (uint64_t compld)
int32_t INI\_AccOffComp (uint64_t compld)
int32_t INI\_GetBootInfo (T_SS_SM_START_DataStructType *info)
int32_t INI\_GetExtBootInfo (T_SS_SM_START_ExtDataStructType *info)
int32_t INI\_Init (T_PRIM_PRM *p_prm, int argc, char *argv[], int *fdNum, int fdlist[INI_FD_MAX])
BOOL INI\_Handler (fd_set *p_fds)

```

void [INI\\_Term](#) (void)  
 int32\_t [INI\\_SetMonitorState](#) (T\_PRIM\_MONITOR\_PRM \*p\_prm)  
 void [\\_INI\\_DEBUGDUMP](#) (BOOL blsNeedSvcName, PCSTR f\_cFormat,...)  
 E\_CWORD33\_Status [CWORD33\\_OnTouch](#) (HANDLE hApp)  
 TSKM\_ERR\_t [TSKM\\_SvcCtl](#) (TSKM\_SVCID\_t svclId, const [TSKM\\_SVC\\_CTL\\_t](#) \*ctl)  
 TSKM\_ERR\_t [TSKM\\_SvcGetInfo](#) (TSKM\_SVCID\_t svclId, [TSKM\\_SVC\\_INFO\\_t](#) \*svclInfo)  
 TSKM\_ERR\_t [TSKM\\_ErrorReboot](#) (const [TSKM\\_ERROR\\_REBOOT\\_t](#) \*p\_info)  
 TSKM\_ERR\_t [TSKM\\_Reboot](#) (const TSKM\_RSV\_t \*p\_rsv)  
 TSKM\_ERR\_t [TSKM\\_Logging](#) (const [TSKM\\_LOGGING\\_INFO\\_t](#) \*p\_info)  
 TSKM\_ERR\_t [TSKM\\_Datalnit](#) (HANDLE hApp, const [TSKM\\_DATAINIT\\_t](#) \*p\_info)  
 TSKM\_ERR\_t [TSKM\\_SetWakeupOrder](#) (const [TSKM\\_WAKEUP\\_ORDER\\_t](#) \*p\_order)  
 TSKM\_ERR\_t [TSKM\\_GetExtBootInfo](#) (T\_SS\_SM\_START\_ExtDataStructType \*p\_info)  
 TSKM\_ERR\_t [tskm\\_svcsEventHandle](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs, const [TSKM\\_EVENT\\_INFO\\_t](#) \*p\_inEv, [TSKM\\_EVENT\\_INFO\\_t](#) \*p\_outEv)  
[TSKM\\_SVC\\_CTX\\_t](#) \* [tskm\\_svcsGetSvcBySvcId](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs, TSKM\_SVCID\_t svclId)  
[TSKM\\_SVC\\_CTX\\_t](#) \* [tskm\\_svcsGetSvcByPid](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs, pid\_t pid)  
 TSKM\_BOOL\_t [tskm\\_svclsWaiting](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs)  
 TSKM\_SVC\_WAIT\_STATE\_t [tskm\\_svcsGetSvcTermWaitState](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs)  
 TSKM\_ERR\_t [tskm\\_svcsSetBootInfo](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs, T\_SS\_SM\_START\_DataStructType \*p\_info, T\_SS\_SM\_START\_ExtDataStructType \*p\_exInfo)  
 TSKM\_ERR\_t [tskm\\_svcsAvtiveSvcTerm](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs)  
 TSKM\_ERR\_t [tskm\\_svcsCallDebugDump](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs)  
 TSKM\_ERR\_t [tskm\\_svcsCallLowMem](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs)  
 TSKM\_ERR\_t [tskm\\_svcEventHandle](#) (TSKM\_SVC\_CTX\_t \*p\_svc, [TSKM\\_EVENT\\_INFO\\_t](#) \*p\_ev)  
 TSKM\_ERR\_t [tskm\\_svcExec](#) (TSKM\_SVC\_CTX\_t \*p\_svc)  
 TSKM\_ERR\_t [tskm\\_svcWakeupRequest](#) (TSKM\_SVC\_CTX\_t \*p\_svc, [TSKM\\_GSTEP\\_REQ\\_INFO\\_t](#) \*p\_req)  
 TSKM\_ERR\_t [tskm\\_svcDownRequest](#) (TSKM\_SVC\_CTX\_t \*p\_svc, [TSKM\\_GSTEP\\_REQ\\_INFO\\_t](#) \*p\_req)  
 TSKM\_ERR\_t [tskm\\_svcDisableRequest](#) (TSKM\_SVC\_CTX\_t \*p\_svc)  
 TSKM\_ERR\_t [tskm\\_svcEnableRequest](#) (TSKM\_SVC\_CTX\_t \*p\_svc)  
 TSKM\_BOOL\_t [tskm\\_svclsCommnicatable](#) (TSKM\_SVC\_CTX\_t \*p\_svc)  
 int [tskm\\_initServiceList](#) (TSKM\_SVCS\_CTX\_t \*p\_svcs, int iFd)  
 void [tskm\\_initWakeupCtx](#) (TSKM\_GSTEP\_CTX\_t \*p\_wakeup, BOOL isVupMode)  
 void [tskm\\_initDownCtx](#) (TSKM\_GSTEP\_CTX\_t \*p\_down, BOOL isVupMode)

## Detailed Description

## Class Documentation

### struct T\_PRIM\_MONITOR\_PRM

#### Class Members:

BOOL	blsRun	
uint32_t	timeout	

### struct PRIM\_SHAREDATA\_TBL

#### Class Members:

char	shmName[PRIM_SHM_NAME_MAX]	
int32_t	size	

### struct PRIM\_ACCOFF\_TBL

#### Class Members:

uint32_t	localStep	
uint16_t	pno	
uint8_t	rsv[2]	

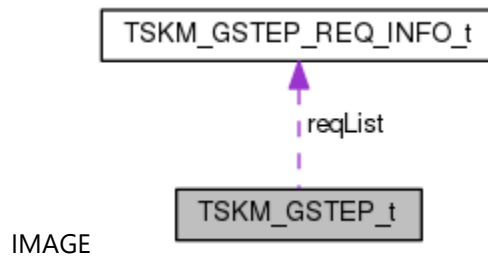
### struct TSKM\_GSTEP\_REQ\_INFO\_t

#### Class Members:

TSKM_LOCAL_STEP_t	localStep	
TSKM_SVCID_t	svcid	

### struct TSKM\_GSTEP\_t

Collaboration diagram for TSKM\_GSTEP\_t:

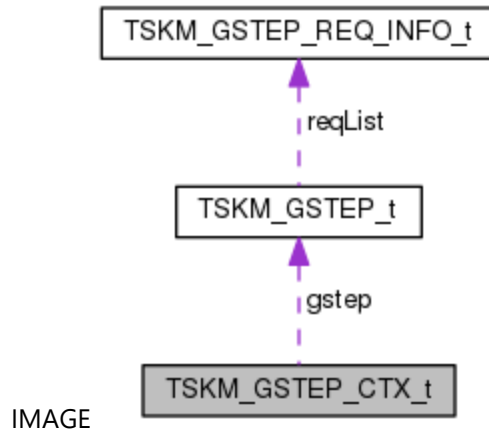


#### Class Members:

TSKM_SVCID_t *	execSvcIdList	
uint32_t	execSvcNum	
uint32_t	gstepId	
uint64_t	nextTransCond	
<a href="#">TSKM_GSTEP_REQ_INFO_t</a> *	reqList	
uint32_t	reqNum	

### struct TSKM\_GSTEP\_CTX\_t

Collaboration diagram for TSKM\_GSTEP\_CTX\_t:



**Class Members:**

uint64_t	compState	
<a href="#">TSKM_GSTEP_t</a> *	gstep	
uint32_t	gstepIdx	
uint32_t	gstepNum	

**struct TSKM\_NV\_HEADER\_t**

**Class Members:**

char	version[5]	
------	------------	--

**struct TSKM\_NV\_FOOTER\_t**

**Class Members:**

uint32_t	checkSum	
----------	----------	--

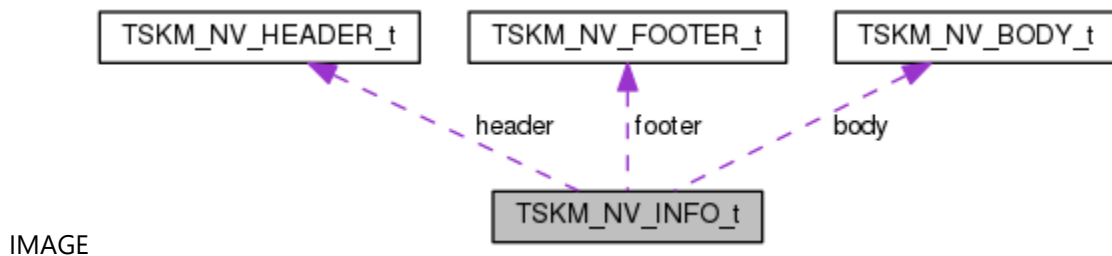
**struct TSKM\_NV\_BODY\_t**

**Class Members:**

uint8_t	rsvSvcNum	
TSKM_SVCID_t	rsvSvcs[TSKM_SVC_RESERVE_MAX]	

**struct TSKM\_NV\_INFO\_t**

Collaboration diagram for TSKM\_NV\_INFO\_t:



**Class Members:**

<a href="#">TSKM_NV_BODY_t</a>	body	
<a href="#">TSKM_NV_FOOTER_t</a>	footer	
<a href="#">TSKM_NV_HEADER_t</a>	header	
uint8_t	rsvBody[TSKM_NV_SIZE_BODY-sizeof( <a href="#">TSKM_NV_BODY_t</a> )]	
uint8_t	rsvFooter[TSKM_NV_SIZE_FOOTER-sizeof( <a href="#">TSKM_NV_FOOTER_t</a> )]	
uint8_t	rsvHeader[TSKM_NV_SIZE_HEADER-sizeof( <a href="#">TSKM_NV_HEADER_t</a> )]	

**struct TSKM\_EV\_PRI\_REQ\_WAKEUP\_PRM\_t****Class Members:**

char	bootInfo[TSKM_EV_BOOTINFO_SIZE]	
char	extBootInfo[TSKM_EV_EXTBOOTINFO_SIZE]	
TSKM_BOOL_t	isDynamic	
TSKM_LOCAL_STEP_t	localStep	
TSKM_SVCID_t	svclId	

**struct TSKM\_EV\_PRI\_REQ\_DOWN\_PRM\_t****Class Members:**

TSKM_LOCAL_STEP_t	localStep	
-------------------	-----------	--

**struct TSKM\_EV\_PRI\_REP\_WAKEUP\_COMP\_PRM\_t****Class Members:**

uint64_t	compld	
----------	--------	--

**struct TSKM\_EV\_PRI\_REP\_DOWN\_COMP\_PRM\_t****Class Members:**

uint64_t	compld	
----------	--------	--

**struct TSKM\_EV\_PRI\_REP\_CONNECT\_PRM\_t****Class Members:**

int	connFd	
-----	--------	--

**struct TSKM\_EV\_PRI\_RES\_WAKEUP\_PRM\_t**

**Class Members:**

TSKM_BOOL_t	isLast	
TSKM_BOOL_t	isShmDone	
TSKM_BOOL_t	isStepDone	

**struct TSKM\_EV\_PRI\_RES\_DOWN\_PRM\_t****Class Members:**

TSKM_BOOL_t	isLast	
-------------	--------	--

**struct TSKM\_EV\_PRI\_EX\_RES\_DEBUGDUMP\_PRM\_t****Class Members:**

char	dumpMsg[TSKM_EV_DEBUGDUMP_SIZE]	
------	---------------------------------	--

**struct TSKM\_EV\_LCL\_CHG\_SVC\_STATE\_PRM\_t****Class Members:**

TSKM_SVCID_t	svcid	
--------------	-------	--

**union \_TSKM\_EVENT\_INFO\_t.prm****Class Members:**

<a href="#">TSKM_EV_LCL_CHG_SVC_STATE_PRM_t</a>	chgSvc	
<a href="#">TSKM_EV_PRI_REP_CONNECT_PRM_t</a>	repConnect	
<a href="#">TSKM_EV_PRI_REP_DOWN_COMP_PRM_t</a>	repDownComp	
<a href="#">TSKM_EV_PRI_REP_WAKEUP_COMP_PRM_t</a>	repWakeupComp	
<a href="#">TSKM_EV_PRI_REQ_DOWN_PRM_t</a>	reqDown	
<a href="#">TSKM_EV_PRI_REQ_WAKEUP_PRM_t</a>	reqWakeup	
<a href="#">TSKM_EV_PRI_RES_DOWN_PRM_t</a>	resDown	
<a href="#">TSKM_EV_PRI_RES_WAKEUP_PRM_t</a>	resWakeup	

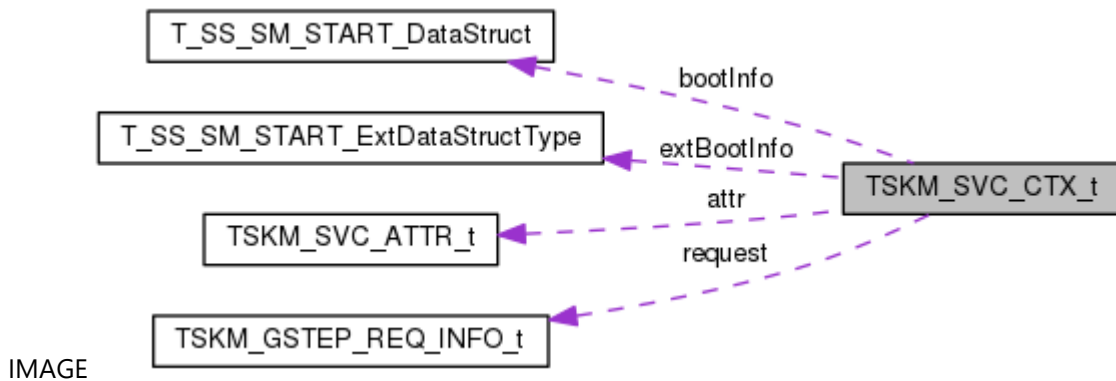
**struct TSKM\_SVC\_ATTR\_t****Class Members:**

char **	args	
TSKM_SVC_ASSIGN_CPU_t	cpuAssign	
uint32_t	cpuLimit	
TSKM_SVC_LC_t	lifeCycle	
uint32_t	memLimit	
const char *	name	
const char *	path	
TSKM_SVC_POLICY_t	policy	
uint32_t	prio	

uint32_t	retryCnt	
uint32_t	runtimeLimit	
TSKM_BOOL_t	shutdownWait	
gid_t *	subgidList	
uint32_t	subgidNum	
TSKM_SVCID_t	svclId	
TSKM_SVC_TYPE_t	type	
const char *	user	

### struct TSKM\_SVC\_CTX\_t

Collaboration diagram for TSKM\_SVC\_CTX\_t:



### Class Members:

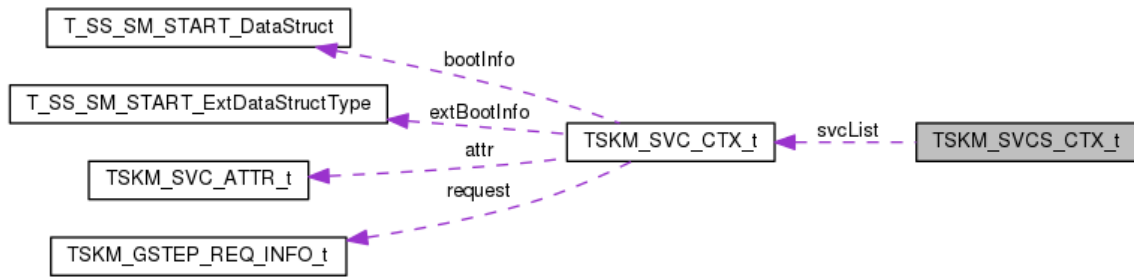
<a href="#">TSKM_SVC_ATTR_t *</a>	attr	
<a href="#">T_SS_SM_START_DataStructType</a>	bootInfo	
int	connFd	
uint32_t	errTermCnt	
<a href="#">T_SS_SM_START_ExtDataStructType</a>	extBootInfo	
int	iFd	
TSKM_BOOL_t	isAvailable	
TSKM_BOOL_t	isShmDone	
TSKM_BOOL_t	isStepDone	
pid_t	pid	
<a href="#">TSKM_GSTEP_REQ_INFO_t</a>	request[TSKM_SVC_WAIT_REQ_MAX]	
TSKM_SVC_STATE_t	state	
uint32_t	waitReqCnt	
uint32_t	waitResCnt	
uint32_t	watchCnt	

### struct TSKM\_SVCS\_CTX\_t

Collaboration diagram for TSKM\_SVCS\_CTX\_t:



IMAGE



**Class Members:**

<a href="#">TSKM_SVC_CTX_t</a> *	svcList	
uint32_t	svcNum	

**struct TSKM\_SVC\_CTL\_t**

**Class Members:**

TSKM_SVC_CMD_t	cmd	
----------------	-----	--

**struct TSKM\_SVC\_INFO\_t**

**Class Members:**

TSKM_BOOL_t	isExecDisable	
TSKM_SVCID_t	svcid	

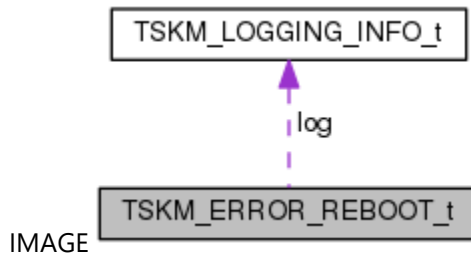
**struct TSKM\_LOGGING\_INFO\_t**

**Class Members:**

char	messageStr[TSKM_LOGGING_MSG_STR_SIZE]	
TSKM_LOGGING_TYPE_NORMAL_t	type	

**struct TSKM\_ERROR\_REBOOT\_t**

Collaboration diagram for TSKM\_ERROR\_REBOOT\_t:



**Class Members:**

<a href="#">TSKM_LOGGING_INFO_t</a>	log	
TSKM_ERROR_REBOOT_TYPE_t	type	

**struct TSKM\_WAKEUP\_ORDER\_t****Class Members:**

char	orderName[TSKM_ORDER_NAME_MAX]	
------	--------------------------------	--

**Macro Definition Documentation**

```
#define TSKM_DATA_INIT_FUNC( ServiceName, ArgName) E_CWORD33_Status tskm_ ##  
ServiceName ## _data_init(T\_SS\_SM\_START\_DataStructType* ArgName)
```

**Summary**

Defines callback functions to initialize data.

**Parameters:**

in	<i>serviceName</i>	const char* - Service name
in	<i>argName</i>	const T_SS_SM_START_DataStructType* - Argument name <pre> 1 typedef struct T_SS_SM_START_DataStruct{ 2   EPWR_WAKEUP_FACTOR_TYPE startupReason; 3   BOOL isUserModeOn; 4   ESMDDataResetModelInfo dataResetMode; 5   EPWR_SC_SECURITY_STATUS securityStatus; 6   EPWR_SC_WAKEUP_TYPE wakeupType; 7   ESMDramBackupStatus dramBackupStatus; 8   ESMResetStatus resetStatus; 9   UI_32 resetCount; 10 } T_SS_SM_START_DataStructType;</pre>

**Return values:**

<i>e_CWORD33_StatusOK</i>	Normal
<i>e_CWORD33_StatusFail</i>	Check error

**Preconditions**

None

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**See also:**

None

**#define TSKM\_End( tskmId) RPC\_end(tskmId)**

**Summary:**

Releases the resource created at TSKM\_Init.

**Parameters:**

in	<i>ID</i>	UINT32 - ID gotten at <a href="#">TSKM_Init()</a>
----	-----------	---

**Return values:**

<i>None</i>	
-------------	--

**Preconditions:**

TSKM\_Init must be used and initialized

**Changes of the internal stat:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[TSKM\\_Init](#)

**#define TSKM\_Init( p\_tskmId) RPC\_START\_CLIENT(p\_tskmId)**

**Summary:**

Creates the resource to communicate with Task\_Manager.

**Parameters:**

out	<i>*pID</i>	UINT32 - Unique ID of the automatically allocated program
-----	-------------	---

**Return values:**

<i>None</i>	
-------------	--

**Preconditions:**

None

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**[TSKM\\_End](#)**Function Documentation****E\_CWORD33\_Status \_CWORD33\_OnTouch (HANDLE *hApp*)****Summary:**

Callback to notify process use

**Parameters:**

in	<i>hApp</i>	HANDLE - Application handle
----	-------------	-----------------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Succeeded
<i>Other-than-e_CWORD33_StatusOK</i>	Failed (Error type depends on the implementation at user side)

**Preconditions:**

Must set inside running information structure in calling INI\_Main or INI\_Init

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**See also:**

None

**int32\_t INI\_AccOffComp (uint64\_t *compld*)****Summary:**

Notifies end event completion notification to TaskManager.

**Parameters:**

in	<i>compld</i>	uint64_t - The comparison ID for phase running (Designates INI_TERMCOMP_[a-zA-Z]+ defined at <a href="#">INI_API.hpp</a> )
----	---------------	--

The ID described at [INI\\_API.hpp](#)

- 1 - INI\_TERMCOMP\_NONE : None
- 2 - INI\_TERMCOMP\_ACTIVITYMGR : For ActivityManager end

- 3 - INI\_TERMCOMP\_RESIDENT : For resident service end
- 4 - INI\_TERMCOMP\_TRANSIENT : For non-resident service end

**Return values:**

<i>INI_SUCCESS</i>	Succeeded
<i>INI_FALSE</i>	Failed

**Preconditions:**

INI\_Main or INI\_Init must be called

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**Supplement:**

next\_trans\_condition is the element to designate transition conditions to next phase. The transition to next phase is done when the following two conditions are met.

When the description of next\_trans\_condition element is omitted, transition is done only by condition 1.

1. All of the phase end request processing set by request element is completed. (The phase end request processing is executed by primary library asynchronously)
2. The completion notification of the event designated by next\_trans\_condition element is completed. Waiting conditions for event completion notification INI\_INITCOMP\_[A-Z]+ stipulated at [INI API.hpp](#) is set in cond property designated at next\_trans\_condition element.

AND condition can be set by being INI\_INITCOMP\_AAAA| INI\_INITCOMP\_BBBB when conditions are some.

Event completion notification can be issued by using INI\_AccOffComp.

**See also:**

[INI\\_Main](#), [INI\\_Init](#)

**void INI\_ExitDone (int *status*)**

**Summary:**

Notifies the completion of process end processing.

**Parameters:**

in	<i>status</i>	int - Unused (This is for future extension. 0 must be designated.)
----	---------------	--

**Return values:**

<i>None</i>	
-------------	--

**Preconditions:**

None

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Main](#), [INI\\_Init](#), [INI\\_ExitStart](#)

**void INI\_ExitStart (void \* rsv)****Summary:**

Starts the end processing of process.

**Parameters:**

in	<i>rsv</i>	void* - The pointer to reservation parameters (NULL must be appointed)
----	------------	--

**Return values:**

<i>None</i>
-------------

**Preconditions:**

None

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**Supplement:**

local\_step is the information defined in default\_wakeup.xml/default\_shutdown.xml as the definition of running order / end order.

local\_step defined in default\_shutdown.xml has the following types.

1-9 : Designates local phase numbers (the phase numbers of end processing)

last : This designates local phase numbers to be last. When there is the local phase processing not to be executed, this executes all.

all : The same as last.

**See also:**

[INI Main](#), [INI Init](#), [INI ExitDone](#)

**int32\_t INI\_GetBootInfo (T\_SS\_SM\_START\_DataStructType \* info)**

**Summary:**

Gets boot information.

**Parameters:**

in	info	T_SS_SM_START_DataStructType * - The pointer to boot information structure
----	------	--

**T\_SS\_SM\_START\_DataStructType structure**

```
1 typedef struct T_SS_SM_START_DataStruct{
2   EPWR_WAKEUP_FACTOR_TYPE  startupReason; /* Startup reason          */
3   BOOL                      isUserModeOn; /* User mode ON/OFF          */
4   ESMDDataResetModeInfo    dataResetMode; /* Data reset mode          */
5   EPWR_SC_SECURITY_STATUS  securityStatus; /* Security state           */
6   EPWR_SC_WAKEUP_TYPE      wakeupType; /* Battery disconnection state */
7   ESMDRAMBackupStatus      dramBackupStatus; /* Backup memory area state */
8   ESMResetStatus           resetStatus; /* Reset state              */
9   UI_32                    resetCount; /* Abnormal reboot number   */
10 } T_SS_SM_START_DataStructType;
11
12 Startup reason type:
13 - epswflGN_ACC : Ignition ACC (Currently, Fixed)
14 User mode ON/OFF:
15 - TRUE : User mode ON (Currently, Fixed)
16 Data reset mode:
17 - e_SS_SM_DATA_RESET_NONE: Not-initialized
18 - e_SS_SM_DATA_RESET_USER: User data initialization
19 - e_SS_SM_DATA_RESET_FACTORY: Factory initialization
20 Security state:
21 - epsssUNLOCK : Unlock state
22 - epsssLOCK : Lock state
23 Battery disconnection state:
24 - epsstWARMSTART : Battery disconnection does not occur
25 - epsstCOLDSTART : Battery disconnection occurs
26 Backup memory area state:
27 - e_SS_SM_DRAM_BACKUP_OK: Backup OK of Backup memory area
28 - e_SS_SM_DRAM_BACKUP_NG: Backup NG of Backup memory area
29 Reset state:
30 - e_SS_SM_RESET_STATUS_UNSET: Information unsetting(Not decided yet)
31 - e_SS_SM_RESET_STATUS_NONE : Normal
32 - e_SS_SM_RESET_STATUS_NG : Abnormality occurred (Abnormal RESET or booting after service
abnormal end)
33 - e_SS_SM_RESET_STATUS_IMMEDIATE : Immediate RESET occurred
```

**Return values:**

INI_SUCCESS	Succeeded
INI_FALSE	Failed

**Preconditions:**

INI\_Main or INI\_Init must be called. (Process running must be completed)

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Main](#), [INI\\_Init](#)

**int32\_t INI\_GetExtBootInfo ([T\\_SS\\_SM\\_START\\_ExtDataStructType](#) \* *info*)**

**Summary:**

Gets boot extended information.

**Parameters:**

in	<i>info</i>	<a href="#">T_SS_SM_START_ExtDataStructType</a> * - The pointer to boot extended information structure
----	-------------	--

[T\\_SS\\_SM\\_START\\_ExtDataStructType](#) structure

```

1 #define SS_SM_START_EXT_INFO_SIZE 64
2 #define SS_SM_START_EXT_BODY_SIZE ( sizeof(BOOL)
3     + sizeof(EMRelaunchStatus)
4     + sizeof(BOOL)
5     + sizeof(BOOL)
6     )
7 #define SS_SM_START_EXT_RSV_SIZE SS_SM_START_EXT_INFO_SIZE
8     - SS_SM_START_EXT_BODY_SIZE
9 typedef struct {
10  BOOL          isProgUpdated; /* Program update information */
11  EMRelaunchStatus relaunchStatus; /* Own-service Relaunch state */
12  BOOL          isMapUpdated; /* Map update information */
13  BOOL          isMapDiffUpdated; /* Map difference update information */
14  uint8_t       reserved[SS_SM_START_EXT_RSV_SIZE]; /* Reserve area */
15 } T_SS_SM_START_ExtDataStructType;
16
17 Program update information
18 - TRUE : Program update
19 - FALSE : No Program update
20 Own-service Relaunch state:
21 - e_SS_SM_RELAUNCH_STATUS_NONE : Relaunch does not occur (Initial boot)
22 - e_SS_SM_RELAUNCH_STATUS_SAFE : Normal Relaunch
23 - e_SS_SM_RELAUNCH_STATUS_ERR : Abnormal Relaunch
24 Map update information:
25 - TRUE : Map update
26 - FALSE : No Map update
27 Map difference update information

```



- 28 - TRUE : Map difference update
- 29 - FALSE : No Map difference update

**Return values:**

<i>INI_SUCCESS</i>	Succeeded
<i>INI_FALSE</i>	Failed

**Preconditions:**

INI\_Main or INI\_Init must be called. (Process running must be completed.)

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Main](#), [INI\\_Init](#)

**void\* INI\_GetHandle ()**

**Summary:**

Gets the application handle of NSFW.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>void*(HANDLE)</i>	The application handle of NSFW
----------------------	--------------------------------

**Preconditions:**

INI\_Main or INI\_Init must be called and the application handle of NSFW must be generated.

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Main](#), [INI\\_Init](#)

## void\* INI\_GetPrivate ()

### Summary:

Gets private data.

### Parameters:

None	
------	--

### Return values:

void*	The pointer to user private data
-------	----------------------------------

### Preconditions:

INI\_Main or INI\_Init must be called and user private data must be set.

### Changes of the internal state:

The internal state is not changed

### Classification:

Public

### Type

Sync only

### See also:

[INI\\_Main](#), [INI\\_Init](#)

## BOOL INI\_Handler (fd\_set \* p\_fds)

### Summary:

Processes the reception event of primary library.  
(This is used when implementing main thread at service side)

### Parameters:

in	<i>p_fds</i>	fd_set* - fd set varied and detected by select()
----	--------------	--

### Return values:

TRUE	Service running (Continuing)
FALSE	The process end processing of primary library is completed

### Preconditions:

Main thread must be run at [INI\\_Init\(\)](#)

### Changes of the internal state:

The internal state is not changed

### Classification:

Public

**Type**

Sync only

**See also:**[INI\\_Init](#)

**int32\_t INI\_Init (T PRIM PRM \* p\_prm, int argc, char \* argv[], int \* fdNum, int fdlist[INI\_FD\_MAX])**

**Summary:**

Initializes primary library.

(This is used when implementing main thread at service side)

**Parameters:**

in	<i>p_prm</i>	T_PRIM_PRM - The pointer to parameter table of primary library
in	<i>argc</i>	int - The number of command parameters (The parameters passed to main functions must be set without processing)
in	<i>argv</i>	char* - Command parameters (The parameters passed to main functions must be set without processing)
out	<i>fdNum</i>	int * - The number of element stored in fdlist (INI_FD_MAX:3)
out	<i>fdlist[INI_FD_MAX]</i>	int - The array of FD (File Descriptor) for event reception which primary library waits

**Shared memory creation table**

In process running, register the shared memory to create.

This creates the shared memory to be registered in process running and releases it in process end.

This must terminate by adding {\0} into member shmName of table termination.

It is able to access to the shared memory to have been created by shm\_open.

```

1 typedef struct {
2   char   shmName[32];           /* Shared memory name */
3   uint32_t size;               /* Shared memory size (BYTE) */
4 }PRIM_SHAREDATA_TBL;

```

**Running extended function table / End extended function table**

Registers callback functions to be called in process start and exit.

This must terminate by adding NULL into member func of table termination.

Parameters prm of callback functions are User private information and the pointer designated by prm is passed as input parameters [in].

Local phase numbers callback func by the designated phase numbers.

```

1 typedef struct {
2     void (* func)( void* prm); /* Callback functions for function extension */
3     void* prm; /* The pointer to the parameters of Callback function func */
4     uint8_t localStep; /* Local phase numbers */
5     uint8_t rsv[3]; /* Reserve for alignment */
6 }PRIM_EXFUNC_TBL;

```

Parameter table of primary library

For

`_CWORD33_OnInitialization/_CWORD33_OnDestroy/_CWORD33_OnDebugDump/_CWORD33_OnTouch/_CWORD33_OnLowMemory`, check the corresponding API specification.

It is able to get User private data by [INI\\_GetPrivate\(\)](#).

```

1 typedef struct _T_PRIM_PRM{
2     PCSTR name; /* Application name */
3     const PRIM_SHAREDATA_TBL* shmTbl; /* The pointer to shared memory creation table */
4     const PRIM_EXFUNC_TBL* wakeupExFuncTbl; /* The pointer to running extended function table */
5     const PRIM_EXFUNC_TBL* downExFuncTbl; /* The pointer to end extended function table */
6     E_CWORD33_Status (*onInit)(HANDLE hApp); /* _CWORD33_OnInitialization callback function setting */
7     E_CWORD33_Status (*onDestroy)(HANDLE hApp); /* _CWORD33_OnDestroy callback function setting */
8     E_CWORD33_Status (*onDebugDump)(HANDLE hApp); /* _CWORD33_OnDebugDump Callback function setting */
9     E_CWORD33_Status (*onTouch)(HANDLE hApp); /* _CWORD33_OnTouch callback function setting */
10    E_CWORD33_Status (*onLowMem)(HANDLE hApp); /* _CWORD33_OnLowMemory callback function setting */
11    void* priv; /* User private data */
12 }T_PRIM_PRM;

```

**Return values:**

<i>INI_SUCCESS</i>	Succeeded
<i>INI_FALSE</i>	Failed

**Preconditions:**

None

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Main](#)

**int INI\_Main ([T\\_PRIM\\_PRM](#) \* *p\_prm*, int *argc*, char \* *argv*[])**

**Summary:**

Runs the main thread of primary library.

**Parameters:**

in	<i>p_prm</i>	T_PRIM_PRM - The pointer to the parameter table of primary library
in	<i>argc</i>	int - The number of command parameters (The parameters passed to main functions must be set without processing.)
in	<i>argv</i>	char* - Command parameters (The parameters passed to main functions must be set without processing.)

Shared memory creation table

In process running, register the shared memory to create.

This creates the shared memory to be registered in process running and releases it in process end.

This must terminate by adding {\0} into member shmName of table termination.

It is able to access to the shared memory to have been created by shm\_open.

```
1 typedef struct {
2   char   shmName[32];           /* Shared memory name      */
3   uint32_t size;               /* Shared memory size (BYTE) */
4 }PRIM_SHAREDATA_TBL;
```

Running extended function table / End extended function table

Registers callback functions to be called in process start and exit.

This must terminate by adding NULL into member func of table termination.

Parameters prm of callback functions are User private information and the pointer designated by prm is passed as input parameters [in].

Local phase numbers callback func by the designated phase numbers.

```
1 typedef struct {
2   void (*func)(void* prm);      /* Callback functions for function extension */
3   void* prm;                   /* The pointer to the parameters of Callback function func */
4   uint8_t localStep;          /* Local phase numbers */
5   uint8_t rsv[3];             /* Reserve for alignment */
6 }PRIM_EXFUNC_TBL;
```

Parameter table of primary library

For

`_CWORD33_OnInitialization/_CWORD33_OnDestroy/_CWORD33_OnDebugDump/_CWORD33_OnTouch/_CWORD33_OnLowMemory`, check the corresponding API specification.

It is able to get User private data by [INI\\_GetPrivate\(\)](#).

```
1 typedef struct _T_PRIM_PRM{
2     PCSTR      name;          /* Application name          */
3     const PRIM_SHAREDATA_TBL* shmTbl; /* The pointer to shared memory creation table */
4     const PRIM_EXFUNC_TBL*  wakeupExFuncTbl; /* The pointer to running extended function table */
5     const PRIM_EXFUNC_TBL*  downExFuncTbl; /* The pointer to end extended function table */
6     E_CWORD33_Status (*onInit)(HANDLE hApp); /* _CWORD33_OnInitialization callback function setting */
7     E_CWORD33_Status (*onDestory)(HANDLE hApp); /* _CWORD33_OnDestroy callback function setting */
8     E_CWORD33_Status (*onDebugDump)(HANDLE hApp); /* _CWORD33_OnDebugDump Callback function setting */
9     E_CWORD33_Status (*onTouch)(HANDLE hApp); /* _CWORD33_OnTouch callback function setting */
10    E_CWORD33_Status (*onLowMem)(HANDLE hApp); /* _CWORD33_OnLowMemory callback function setting */
11    void* priv; /* User private data */
12 }T_PRIM_PRM;
```

#### Return values:

<code>INI_SUCCESS</code>	Normal end
<code>INI_FALSE</code>	Abnormal end

#### Preconditions:

None

#### Changes of the internal state:

The internal state is not changed

#### Classification:

Public

#### Type

Method only

#### See also:

[INI\\_Init](#)

**`int32_t INI_SetMonitorState (T PRIM MONITOR PRM * p_prm)`**

#### Summary:

Sets abnormality monitoring state.

(This is used when implementing main thread at service side)

**Parameters:**

in	<i>p_prm</i>	<a href="#">T PRIM_MONITOR_PRM</a> - The pointer to the parameters structure for monitoring
----	--------------	---

**[T PRIM\\_MONITOR\\_PRM](#) structure**

```

1 typedef struct {
2   BOOL    blsRun; /* Monitoring state (TRUE:RUNFALSE:SLEEP) */
3   uint32_t timeout; /* Monitoring timeout time (sec) */
4 }PRIM_SHAREDATA_TBL;

```

**Return values:**

<i>INI_SUCCESS</i>	Succeeded
<i>INI_FALSE</i>	Failed

**Preconditions:**

Main thread must be run at [INI\\_Init \(\)](#)

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Init](#)

**int32\_t INI\_SetMonitorTimeout (uint32\_t *timeout*)****Summary:**

Requests the change for abnormality monitoring timeout time to Task Manager.  
(This is used when main thread is not implemented at service side)

**Parameters:**

in	<i>timeout</i>	uint32_t - Abnormality monitoring timeout time (sec)(When 0 is designated, the service must be out of abnormality monitoring object.)
----	----------------	---

**Return values:**

<i>INI_SUCCESS</i>	Succeeded
--------------------	-----------

**Preconditions:**

Main thread must be run at [INI\\_Main\(\)](#)

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Main](#)

**int32\_t INI\_StepForkComp (uint64\_t *compld*)**

**Summary:**

Notifies the completion of running event to TaskManager.

**Parameters:**

in	<i>compld</i>	uint64_t - The comparison ID for phase running (Designates INI_INITCOMP_[a-zA-Z]+ to define at <a href="#">INI_API.hpp</a> )
----	---------------	--

The ID described at [INI\\_API.hpp](#)

- 1 - INI\_INITCOMP\_NONE: None
- 2 - INI\_INITCOMP\_ON\_START: For ON Start
- 3 - INI\_INITCOMP\_NVM\_ACCESS: For NVM access

**Return values:**

<i>INI_SUCCESS</i>	Succeeded
<i>INI_FALSE</i>	Failed

**Preconditions:**

INI\_Main or INI\_Init must be called.

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**Supplement:**

next\_trans\_condition is the element to designate transition conditions to next phase. The transition to next phase is done when the following two conditions are met.

When the description of next\_trans\_condition element is omitted, transition is done only by condition 1.



1. All of the phase running request processing set by request element is completed.  
(The phase running request processing is executed by primary library asynchronously)
2. The completion notification of the event designated by next\_trans\_condition element is completed.

Waiting conditions for event completion notification INI\_INITCOMP\_[A-Z]+ stipulated at [INI\\_API.hpp](#) is set in cond property designated at next\_trans\_condition element.

AND condition can be set by being INI\_INITCOMP\_AAAA|INI\_INITCOMP\_BBBB when conditions are some.

Event completion notification can be issued by using INI\_StepForkComp.

**See also:**

[INI Main](#), [INI Init](#)

**void INI\_Term (void )**

**Summary:**

Releases the resource of primary library.

(This is used when implementing main thread at service side)

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Preconditions:**

Main thread must be run at [INI\\_Init\(\)](#)

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

[INI\\_Init](#), [INI\\_Handler](#)

**TSKM\_ERR\_t TSKM\_DataInit (HANDLE *hApp*, const [TSKM\\_DATAINIT t](#) \* *p\_info*)**

**Summary:**

Does the initialization process of service data.

**Parameters:**

in	<i>hApp</i>	HANDLE - Application handle
in	<i>p_info</i>	<a href="#">TSKM_DATAINIT t</a> * - Data initialization information

		<pre> 1 typedef struct { 2   TSKM_DATAINIT_TYPE_t type; 3   E_CWORD33_Status (*onComplnit)(HANDLE hApp); 4 } TSKM_DATAINIT_t; 5 type : Data initialization type 6   TSKM_DATAINIT_TYPE_USER : User data initialization 7   onComplnit : Initialization complete Callback </pre>
--	--	---

**Return values:**

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error
<i>TSKM_E_NG</i>	Error

**Preconditions:**

TSKM\_Init must be used and initialized

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Method only

**See also:**

[TSKM\\_DATA\\_INIT\\_FUNC](#)

**TSKM\_ERR\_t TSKM\_ErrorReboot (const [TSKM\\_ERROR\\_REBOOT\\_t](#) \* *p\_info*)**

**Summary:**

Let system do abnormal reboot.

**Parameters:**

in	<i>p_info</i>	<p>TSKM_ERROR_REBOOT_t* - REBOOT information</p> <pre> 1 typedef struct { 2   TSKM_ERROR_REBOOT_TYPE_t type; 3   TSKM_LOGGING_INFO_t log; 4 } TSKM_ERROR_REBOOT_t; 5 type 6   TSKM_ERROR_REBOOT_NORMAL : Abnormal detection 7   log : Log saving information 8   typedef struct { 9     char messageStr[TSKM_LOGGING_MSG_STR_SIZE]; 10  } TSKM_LOGGING_INFO_t; 11   messageStr : Abnormal message character string </pre>
----	---------------	---

**Return values:**

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error

**Preconditions:**

TSKM\_Init must be used and initialized

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

None

**TSKM\_ERR\_t TSKM\_GetExtBootInfo ([T\\_SS\\_SM\\_START\\_ExtDataStructType](#) \* *p\_info*)**

**Summary**

Gets boot extended information.

**Parameters:**

in	<i>p_info</i>	<a href="#">T_SS_SM_START_ExtDataStructType</a> * - Boot extended information <pre> 1 typedef struct { 2     BOOL      isProgUpdated; 3     EMRelaunchStatus relaunchStatus; 4     BOOL      isMapUpdated; 5     BOOL      isMapDiffUpdated; 6     uint8_t    reserved[]; 7 }T_SS_SM_START_ExtDataStructType; </pre>
----	---------------	---

**Return values:**

<i>TSKM_E_OK</i>	Normal end
<i>TSKM_E_PAR</i>	Parameter error

**Preconditions**

None

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only

**See also:**

[TSKM\\_DATA\\_INIT\\_FUNC](#)

**void tskm\_initDownCtx** ([TSKM\\_GSTEP\\_CTX t](#) \* *p\_down*, **BOOL** *isVupMode*)

**Summary**

Get state of down step.

**Parameters:**

out	<i>p_down</i>	<i>p_down</i> - pointer of <a href="#">TSKM_GSTEP_CTX t</a>
-----	---------------	---

```

p_wakeup TSKM_GSTEP_CTX_t*
1 typedef struct {
2   uint32_t gstepIdx;      // step Index
3   uint32_t gstepNum;     // number of step
4   TSKM_GSTEP_t* gstep;   // step start/stop info
5   uint64_t compState;
6 } TSKM_GSTEP_CTX_t;

```

**Parameters:**

in	<i>isVupMode</i>	<i>isVupMode</i> - version up mode flag
----	------------------	---

*isVupMode* **BOOL** TRUE version up mode FALSE not versoin up mode

**Return values:**

--	--

**int tskm\_initServiceList** ([TSKM\\_SVCS\\_CTX t](#) \* *p\_svcs*, **int** *iFd*)

**Summary**

init started services list

**Parameters:**

out	<i>p_svcs</i>	<i>p_svcs</i> - pointer of service list
-----	---------------	---

```

p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;

```

**Parameters:**

in	<i>iFd</i>	<i>iFd</i> - the file descriptor return by inotify_init1().
----	------------	---

*p\_svcs* **int**

**Return values:**

0	Success
-1	Failed

### Preconditions

called in the ctxCreate()

### Change of the internal state

The internal state is not changed.

### Classification

public

### Type

sync only

### See also:

None

**void** tskm\_initWakeupCtx ([TSKM\\_GSTEP\\_CTX\\_t](#) \* *p\_wakeup*, **BOOL** *isVupMode*)

### Summary

Get state of started step.

### Parameters:

out	<i>p_wakeup</i>	<i>p_wakeup</i> - pointer of <a href="#">TSKM_GSTEP_CTX_t</a>
-----	-----------------	---

```
p_wakeup TSKM_GSTEP_CTX_t*
1 typedef struct {
2   uint32_t gstepIdx;      // step Index
3   uint32_t gstepNum;     // number of step
4   TSKM_GSTEP_t* gstep;   // step start/stop info
5   uint64_t compState;
6 } TSKM_GSTEP_CTX_t;
```

### Parameters:

in	<i>isVupMode</i>	<i>isVupMode</i> - version up flag
----	------------------	------------------------------------

*isVupMode* **BOOL** TRUE version up mode FALSE not versoin up mode

### Return values:

<i>void</i>
-------------

### Preconditions

called in ctxCreate()

### Change of the internal state

The internal state is not changed.

**Classification**

public

**Type**

sync only

**See also:**

None

**TSKM\_ERR\_t TSKM\_Logging (const [TSKM\\_LOGGING\\_INFO t](#) \* *p\_info*)****Summary:**

Stores LOG in internal non-volatile area.

**Parameters:**

in	<i>p_info</i>	<a href="#">TSKM_LOGGING_INFO t</a> * - Log storing information 1 typedef struct{ 2 TSKM_LOGGING_TYPE_NORMAL_t type; 3 char messageStr[TSKM_LOGGING_MSG_STR_SIZE]; 4 }TSKM_LOGGING_INFO_t; 5 type : Log storing type 6 TSKM_LOGGING_TYPE_MODULE_LOGS: General LOG storing request from service 7 TSKM_LOGGING_TYPE_GRP_RELAUNCH: Log collection by Group Relaunch 8 messageStr : Trouble factors
----	---------------	--

**Return values:**

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error

**Preconditions:**

TSKM\_Init must be used and initialized

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

None

## TSKM\_ERR\_t TSKM\_Reboot (const TSKM\_RSV\_t \* p\_rsv)

### Summary:

Let system do reboot.

### Parameters:

in	<i>rsv</i>	TSKM_RSV_t* - Reservation ( This must designate NULL)
----	------------	---

### Return values:

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error

### Preconditions:

TSKM\_Init must be used and initialized

### Changes of the internal state:

The internal state is not changed

### Classification:

Public

### Type

Sync Method

### See also:

None

## TSKM\_ERR\_t TSKM\_SetWakeupOrder (const [TSKM\\_WAKEUP\\_ORDER\\_t](#) \* p\_order)

### Summary:

Holds running order.

### Parameters:

in	<i>p_order</i>	<a href="#">TSKM_WAKEUP_ORDER_t</a> * - Running order information 1 typedef struct { 2 char orderName[TSKM_ORDER_NAME_MAX]; 3 } TSKM_WAKEUP_ORDER_t; 4 orderName: Order name (MAX:31 characters)
----	----------------	--

### Return values:

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error
<i>TSKM_E_NG</i>	Error

### Preconditions:

TSKM\_Init must be used and initialized

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync Sync

**See also:**

None

**TSKM\_ERR\_t TSKM\_SvcCtl (TSKM\_SVCID\_t *svcid*, const [TSKM SVC CTL t](#) \* *ctl*)**

**Summary:**

Run the control for service.

**Parameters:**

in	<i>svcid</i>	TSKM_SVCID_t - Service ID
in	<i>ctl</i>	TSKM_SVC_CTL_t* - Command 1 typedef struct{ 2 TSKM_SVC_CMD_t cmd; 3 } TSKM_SVC_CTL_t;

**Return values:**

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error
<i>TSKM_E_STATE</i>	State error
<i>TSKM_E_NG</i>	Error

**Preconditions:**

TSKM\_Init must be used and initialized

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

None



**TSKM\_ERR\_t tskm\_svcDisableRequest** ([TSKM SVC CTX t](#) \* *p\_svc*)

**Summary**

**Parameters:**

in		
----	--	--

**TSKM\_ERR\_t tskm\_svcDownRequest** ([TSKM SVC CTX t](#) \* *p\_svc*, [TSKM GSTEP REQ INFO t](#) \* *p\_req*)

**Summary**

Send service down request to service.

**Parameters:**

in		
----	--	--

**TSKM\_ERR\_t tskm\_svcEnableRequest** ([TSKM SVC CTX t](#) \* *p\_svc*)

**Summary**

Set service state as start available.

**Parameters:**

in		
----	--	--

**TSKM\_ERR\_t tskm\_svcEventHandle** ([TSKM SVC CTX t](#) \* *p\_svc*, [TSKM EVENT INFO t](#) \* *p\_ev*)

**Summary**

process event.

**Parameters:**

in	<i>p_svcs</i>	<i>p_svcs</i> - pointer of services
----	---------------	-------------------------------------

```
p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;
```

**Parameters:**

in		
----	--	--

**TSKM\_ERR\_t tskm\_svcExec ([TSKM SVC CTX t](#) \* *p\_svc*)**

**Summary**

start service.

**Parameters:**

in		
----	--	--

**TSKM\_ERR\_t TSKM\_SvcGetInfo (TSKM\_SVCID\_t *svcid*, [TSKM SVC INFO t](#) \* *svclInfo*)**

**Summary:**

Gets the information of designated service.

**Parameters:**

in	<i>svcid</i>	TSKM_SVCID_t - Service ID
out	<i>svclInfo</i>	TSKM_SVC_INFO_t* - Service information 1 typedef struct { 2 TSKM_SVCID_t svcid; 3 TSKM_BOOL_t isExecDisable; 4 } TSKM_SVC_INFO_t; 5 svcid : Service ID 6 isExecDisable : Service running prohibition state 7 TSKM_TRUE : Running prohibition 8 TSKM_FALSE : Running permission

**Return values:**

<i>TSKM_E_OK</i>	Succeeded
<i>TSKM_E_PAR</i>	Parameter error

**Preconditions:**

TSKM\_Init must be used and initialized

**Changes of the internal state:**

The internal state is not changed

**Classification:**

Public

**Type**

Sync only

**See also:**

None

## TSKM\_BOOL\_t tskm\_svclsCommnicatable ([TSKM SVC CTX t](#) \* p\_svc)

### Summary

Whether service is Commnicatable.

### Parameters:

in	p_svc	p_svc - pointer of service
----	-------	----------------------------

```
p_svc TSKM_SVC_CTX_t*
1 typedef struct {
2   TSKM_SVC_ATTR_t *attr; // attribute of service
3   TSKM_SVC_STATE_t state; // state of service
4   int iFd; // inotifyFd used by touch
5   pid_t pid; // PID of service
6   int connFd; // service communicate fd
7   T_SS_SM_START_DataStructType bootInfo; // BOOT info
8   T_SS_SM_START_ExtDataStructType extBootInfo; // extend BOOT info
9   TSKM_BOOL_t isShmDone; // shared memory init done
10  TSKM_BOOL_t isStepDone; // step done
11  TSKM_BOOL_t isAvailable; // Availability flag
12  uint32_t watchCnt; // service monitor count
13  uint32_t waitResCnt; // wait response num
14  uint32_t waitReqCnt; // wait request num
15  TSKM_GSTEP_REQ_INFO_t request[TSKM_SVC_WAIT_REQ_MAX];
16  uint32_t errTermCnt; // exception terminal count
17 } TSKM_SVC_CTX_t;
```

### Return values:

TSKM_BOOL_t	
-------------	--

TSKM\_FALSE TSKM\_TRUE

### Preconditions

### Change of the internal state

The internal state is not changed.

### Classification

public

### Type

method

### See also:

None

## TSKM\_ERR\_t tskm\_svcsActiveSvcTerm ([TSKM SVCS CTX t](#) \* p\_svcs)

### Summary

Terminal the dynamic services.

### Parameters:

in	p_svcs	p_svcs - pointer of services
----	--------	------------------------------

```
p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;
```

### Return values:

TSKM_ERR_t	
------------	--

TSKM\_E\_OK TSKM\_E\_NG

### Preconditions

none

### Change of the internal state

The internal state is not changed.

### Classification

public

### Type

method only

### See also:

[tskm\\_svcDownRequest](#)

## TSKM\_ERR\_t tskm\_svcsCallDebugDump ([TSKM SVCS CTX t](#) \* p\_svcs)

### Summary

Send DebugDump message to services.

### Parameters:

in	p_svcs	p_svcs - pointer of services
----	--------	------------------------------

```
p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
```

```

2 uint32_t svcNum;      // service num
3 TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;

```

**Return values:**

<i>TSKM_ERR_t</i>	
-------------------	--

TSKM\_E\_OK TSKM\_E\_NG

**Preconditions**

none

**Change of the internal state**

The internal state is not changed.

**Classification**

public

**Type**

method only

**See also:**

tskm\_sockSend

**TSKM\_ERR\_t tskm\_svcsCallLowMem ([TSKM\\_SVCS\\_CTX\\_t](#) \* *p\_svcs*)**

**Summary**

Send checking low memory message to services.

**Parameters:**

in	<i>p_svcs</i>	<i>p_svcs</i> - pointer of services
----	---------------	-------------------------------------

```

p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;

```

**Return values:**

<i>TSKM_ERR_t</i>	
-------------------	--

TSKM\_E\_OK TSKM\_E\_NG

**Preconditions**

none

### Change of the internal state

The internal state is not changed.

### Classification

public

### Type

method only

### See also:

tskm\_sockSend

**TSKM\_ERR\_t tskm\_svcsEventHandle ([TSKM SVCS CTX t](#) \* p\_svcs, const [TSKM EVENT INFO t](#) \* p\_inEv, [TSKM EVENT INFO t](#) \* p\_outEv)**

### Summary

#### Parameters:

--	--

**[TSKM SVC CTX t](#)\* tskm\_svcsGetSvcByPid ([TSKM SVCS CTX t](#) \* p\_svcs, pid\_t pid)**

### Summary

find service in inputed service list by process id.

#### Parameters:

in	p_svcs	p_svcs - pointer of services
----	--------	------------------------------

```

p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2  uint32_t svcNum;      // service num
3  TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;

```

#### Parameters:

in	pid	pid - process id
----	-----	------------------

pid pid\_t

#### Return values:

<a href="#">TSKM_SVC_CTX_t</a> *	service pointer
<a href="#">TSKM_SVC_CTX_t</a> *	NULL

## Preconditions

## Change of the internal state

The internal state is not changed.

## Classification

public

## Type

method only

## See also:

getSvcCtxByPid

**TSKM SVC CTX t\* tskm\_svcsGetSvcBySvcId (TSKM SVCS CTX t\* p\_svcs, TSKM\_SVCID\_t svclId)**

## Summary

find service in inputed service list by service id.

## Parameters:

in	p_svcs	p_svcs - pointer of services object
----	--------	-------------------------------------

```
p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;
```

## Parameters:

in	svclId	svclId - service Id
----	--------	---------------------

svclId uint32\_t

## Return values:

TSKM_SVC_CTX_t*	service pointer
TSKM_SVC_CTX_t*	NULL

## Preconditions

none

## Change of the internal state

The internal state is not changed.

## Classification

public

## Type

method only

## See also:

getSvcCtxBySvcId

**TSKM\_SVC\_WAIT\_STATE\_t tskm\_svcsGetSvcTermWaitState ([TSKM SVCS CTX t](#) \* p\_svcs)**

## Summary

Get the service which state equal not equal terminal.

```
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;
```

## Return values:

<i>TSKM_SVC_WAIT_STATE_t</i>	
------------------------------	--

TSKM\_SVC\_WAIT\_STATE\_t enum

```
1 typedef enum {
2   TSKM_SVC_WAIT_NONE,      // not waiting state
3   TSKM_SVC_WAIT_TRANSIENT, // dynamic service terminal waiting state
4   TSKM_SVC_WAIT_BOTH,     // no dynamic/ dyanmic service terminal waiting state
5 } TSKM_SVC_WAIT_STATE_t;
```

## Preconditions

none

## Change of the internal state

The internal state is not changed.

## Classification

public

## Type

method only

## See also:

None



## TSKM\_BOOL\_t tskm\_svcsIsWaiting ([TSKM SVCS CTX t](#) \* p\_svcs)

### Summary

Is the service state waiting.

### Parameters:

in	p_svcs	p_svcs - pointer of services
----	--------	------------------------------

```
p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
4 } TSKM_SVCS_CTX_t;
```

### Return values:

TSKM_BOOL_t	
-------------	--

### Preconditions

### Change of the internal state

The internal state is not changed.

### Classification

public

### Type

method only

### See also:

None

## TSKM\_ERR\_t tskm\_svcsSetBootInfo ([TSKM SVCS CTX t](#) \* p\_svcs, [T SS SM START DataStructType](#) \* p\_info, [T SS SM START ExtDataStructType](#) \* p\_exInfo)

### Summary

initialize all services boot info.

### Parameters:

in	p_svcs	p_svcs - pointer of services
----	--------	------------------------------

```
p_svcs TSKM_SVCS_CTX_t*
1 typedef struct {
2   uint32_t svcNum;      // service num
3   TSKM_SVC_CTX_t *svcList; // services list pointer
```

```
4 } TSKM_SVCS_CTX_t;
```

**Parameters:**

in	<i>p_info</i>	p_info - SS_SM_START '_CWORD33_OnStart'/'evStart' message pointer
----	---------------	---

```
p_info T_SS_SM_START_DataStructType*
1 Data passed as part of SS_SM_START '_CWORD78_OnStart'/'evStart' message
2 typedef struct T_SS_SM_START_DataStruct {
3   EPWR_WAKEUP_FACTOR_TYPE  startupReason;
4   BOOL                      isUserModeOn;
5   ESMDDataResetModeInfo    dataResetMode;
6   EPWR_SC_SECURITY_STATUS  securityStatus;
7   EPWR_SC_WAKEUP_TYPE      wakeupType;
8   ESMDRAMBackupStatus      dramBackupStatus;
9   ESMResetStatus           resetStatus;
10  UI_32                     errResetCount;
11  T_SS_SM_START_DataStruct
12 } T_SS_SM_START_DataStructType;
```

**Parameters:**

in	<i>p_exInfo</i>	p_exInfo - _CWORD33_OnStart extend info pointer
----	-----------------	---

```
p_exInfo T_SS_SM_START_ExtDataStructType*
1 /// Extended Parameter for _CWORD33_OnStart
2 typedef struct {
3   BOOL          isProgUpdated;
4   EMRelaunchStatus relaunchStatus;
5   BOOL          isMapUpdated;
6   BOOL          isMapDiffUpdated;
7   uint8_t       reserved[SS_SM_START_EXT_RSV_SIZE];
8 } T_SS_SM_START_ExtDataStructType;
```

**Return values:**

<i>TSKM_E_OK</i>	
------------------	--

TSKM\_SVC\_WAIT\_STATE\_t enum

**Preconditions**

call tskm\_dataInitAll() to get boot info

**Change of the internal state**

The internal state is not changed.

**Classification**

public

## Type

method only

## See also:

None

**TSKM\_ERR\_t** `tskm_svcWakeupRequest` ([TSKM SVC CTX t](#) \* *p\_svc*, [TSKM GSTEP REQ INFO t](#) \* *p\_req*)

## Summary

Send started request to service.

## Parameters:

in		
----	--	--

## Rom\_access\_library

struct [LBM boot wpinfo t](#)

struct [LBM boot t](#)

struct [\\_tmb\\_ram t](#)

class [BOOT AccessIf](#)

[BOOT AccessIf](#): struct [RAM SM INFO t](#)

class [RAM AccessIf](#)

[RAM AccessIf](#): class [ROM AccessIf](#)

### **[ROM AccessIf](#). Macros**

#define [RET\\_DEV\\_NORMAL](#) 0

#define [RET\\_DEV\\_ERR\\_PARAM](#) 3

#define [RET\\_DEV\\_ERROR](#) 4

#define [RET\\_DEV\\_RD\\_ERR\\_OTHER](#) 1

#define [RET\\_DEV\\_RD\\_ERR](#) 2

#define [RET\\_DEV\\_RD\\_ERR\\_1](#) -1

#define [RET\\_DEV\\_RD\\_ERR\\_2](#) -2

#define [RET\\_DEV\\_RD\\_ERR\\_3](#) -3

#define [RET\\_DEV\\_RD\\_ERR\\_4](#) -4

#define [RET\\_DEV\\_WT\\_ERR\\_OTHER](#) 1

#define [RET\\_DEV\\_WT\\_ERR](#) 2

#define **LBM\_UINT32** unsigned int

#define **LBM\_UINT16** uint16\_t

#define **LBM\_UINT8** unsigned char

#define **LBM\_INT64** int64\_t

#define **LBM\_INT32** unsigned int

#define **LBM\_INT16** uint16\_t

#define **LBM\_INT8** unsigned char

#define **LBM\_NOR\_MIRROR\_SIZE** 0x10000

```

#define LBM_DRAM_SIZE 0x10000
#define LBM_NOR_BOOT_SIZE 128
#define LBM_NOR_TSKM_SIZE 128
#define LBM_NOR_VUP_SIZE 1024
#define LBM_NOR_ANA_SIZE 32
#define LBM_NOR_VEHI_SIZE 32
#define LBM_NOR_DEVMGR_SIZE 32
#define SYSUP_DRAM_NORMAL (LBM_UINT32)*** /* normal value NRNR*/
#define SYSUP_DRAM_SFERRSR (LBM_UINT32) ***/* abnormal Soft
Reset(softwareabnormality) sfsf*/
#define SYSUP_DRAM_DISCARD (LBM_UINT32) ***/* need to discard backup
DCDC*/
#define SYSUP_CND_FACTRESET (LBM_UINT16) ***/* COLD START */
#define SYSUP_CND_NORMAL (LBM_UINT16) ***/* HOT START */
#define SYSUP_MODE_NORMAL (LBM_UINT32) ***/* normal mode */
#define SYSUP_MODE_VERUP (LBM_UINT32) ***/* versionup mode */
#define SUBCPU_STS_NOMAL (LBM_UINT32) ***/* Communication normal */
#define SUBCPU_STS_COMNG (LBM_UINT32) ***/* Communication abnormal */
#define SDRAM_STS_NOMAL (LBM_UINT32) ***/* backup power supply is normal */
#define SDRAM_STS_BUPNG (LBM_UINT32) ***/* backup power supply is abnormal */
#define HWDT_STS_NOMAL (LBM_UINT32) ***/* WDT normal */
#define HWDT_STS_WDTTO (LBM_UINT32) ***/* WDT time-out outbreak */
#define SWDT_STS_NOMAL HWDT_STS_NOMAL /* SWDT normal */
#define SWDT_STS_WDTTO HWDT_STS_WDTTO /* SWDT time-out outbreak */
#define IFS_PROG1_CODE (LBM_UINT8)0xAA /* Side PROG1 */
#define IFS_PROG2_CODE (LBM_UINT8)0x55 /* Side PROG2 */
#define UPTBLE_ID_MAX (LBM_UINT8)0x20 /* LBM_UPTBLINFO Maximum value */
#define UPTBLE_ID_NORBOOT (LBM_UINT8)0x00 /* NOR-BOOT ID */
#define UPTBLE_ID_SCRLDR (LBM_UINT8)0x01 /* SecureLoader ID */
#define UPTBLE_ID_NANDBOOT (LBM_UINT8)0x02 /* NAND-BOOT ID */
#define UPTBLE_ID_ROOTFS (LBM_UINT8)0x03 /* Rootfs1 ID */
#define UPTBLE_ID_ROOTF_CWORD98_ (LBM_UINT8)0x04 /* Rootf_CWORD98_ID */
#define STUP_STS_NORMAL (LBM_UINT32)0x00000000 /* normal status */
#define STUP_STS_ERROR_DETEC (LBM_UINT32)0x22222222
#define STUP_STS_UPDATING (LBM_UINT32)0x33333333 /* updating status */
#define STUP_STS_SIGNVRFY_ERROR (LBM_UINT32)0x11111111
#define UPDATE_NOTI_NONE (LBM_UINT32)0x00000000 /* Notify is NOT required. */
#define UPDATE_NOTI_EXIST (LBM_UINT32)0xEEEEEEEE /* Notify is required. */
#define RAMJUDGE_STS_NOMAL (LBM_UINT32)0x44444444 /* RAM Judge Port is High */
#define RAMJUDGE_STS_NG (LBM_UINT32)0xDDDDDDDD /* RAM Judge Port is Low */
#define SELF_REFRESH_OK (LBM_UINT32)0x55555555 /* DRAM Self Refresh is OK */
#define SELF_REFRESH_NG (LBM_UINT32)0xCCCCCCCC /* DRAM Self Refresh is NG */
#define PRODUCTROM (LBM_UINT32)0x11111111
#define RELEASEROM (LBM_UINT32)0x22222222
#define RELEASEROM_REMAIN_USBBOOT (LBM_UINT32)0x44444444
#define DEBUGROM (LBM_UINT32)0x88888888
#define WRITE_NONE (LBM_UINT32)0x00000000
#define WRITE_DONE (LBM_UINT32)0x11111111

```

```

#define DEFAULT_OPIMAGE_DRAM_BACKUPED (LBM_UINT32)0x00000000
#define DEFAULT_OPIMAGE_FROM_EMMC (LBM_UINT32)0xAAAAAAAA
#define SPECIFIC_OPIMAGE_DRAM_BACKUPED (LBM_UINT32)0x11111111
#define SPECIFIC_OPIMAGE_FROM_EMMC (LBM_UINT32)0xBBBBBBBB
#define SPECIFIC_OPIMAGE_FLAG_NONE (LBM_UINT32)0x00000000
#define SPECIFIC_OPIMAGE_FILE_NONE (LBM_UINT32)0x11111111
#define SPECIFIC_OPIMAGE_FILESIZE_0 (LBM_UINT32)0x22222222
#define SPECIFIC_OPIMAGE_FILE_EXIST (LBM_UINT32)0xEEEEEEEE
#define SS_SYS_AREA_BOOT_MAX_SIZE (0x00010000UL)
#define SS_SYS_AREA_ROM_OFFSET (0x00010000UL)
#define SS_SYS_AREA_ROM_MAX_SIZE (0x00001000UL)
#define SS_SYS_AREA_RAM_OFFSET (0x00011000UL)
#define SS_SYS_AREA_RAM_MAX_SIZE (0x00001000UL)
#define RAM\_PRODUCT\_PRIVATE\_MAX (96)
#define SS\_SM\_ORDER\_NAME\_MAX (32)
#define ROM\_PRODUCT\_PRIVATE\_MAX 128

```

### Typedefs

```

typedef struct LBM\_boot\_wpinfo\_t LBM_UPTBLINFO
typedef struct LBM\_boot\_t LBM_NOR_t
typedef struct tmb\_ram\_t LBM_RAM_t
typedef uint32_t EPROGUPDATE\_STATE

```

### Enumerations

```

enum BAI\_OPEN\_t { BAI_OPEN_RO, BAI_OPEN_RW }
enum RAM\_WAKEUP\_STATE { RAM_WAKEUP_STATE_DONT_CARE = ***,
    RAM_WAKEUP_STATE_BACKUP_NG, RAM_WAKEUP_STATE_BATTERY_DOWN }
enum EBOOT\_MODE { APPLICATION_MODE = ***, PROGRAMMING_MODE }
enum EACTIVE\_FLASHLOADER { NEW_FLASHLOADER = ***, OLD_FLASHLOADER }
enum EUSER\_MODE { USER_OFF = ***, USER_ON }
enum ECONTROL\_MODE { DISABLE_MODE = ***, ENABLE_MODE }
enum EDATARESET\_MODE { DATARESET_NONE = ***, DATARESET_USER,
    DATARESET_FACTORY }
enum ELASTILGRESET\_MODE { LAST_ILGRESET_NORMAL = ***, LAST_ILGRESET_NG }
enum ENEXT\_WAKEUP\_TYPE { NEXT_WAKEUP_TYPE_NONE = ***, NEXT_WAKEUP_TYPE_COLD,
    NEXT_WAKEUP_TYPE_HOT }
enum DRAM\_BACKUP\_STATE { DRAM_BACKUP_STATE_OK = ***, DRAM_BACKUP_STATE_NG }

```

### Functions

```

int mtdn\_backup\_Read (const char *path_name, int i_id, int i_offset, int i_size, void *p_buff)
int mtdn\_backup\_Write (const char *path_name, int i_id, int i_offset, int i_size, void *p_buff)

```

---

### Detailed Description

---

## Class Documentation

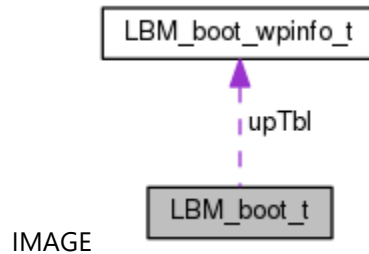
### struct LBM\_boot\_wpinfo\_t

#### Class Members:

LBM_UINT32	currentside	
LBM_UINT32	stupStsA	
LBM_UINT32	stupStsB	

### struct LBM\_boot\_t

Collaboration diagram for LBM\_boot\_t:

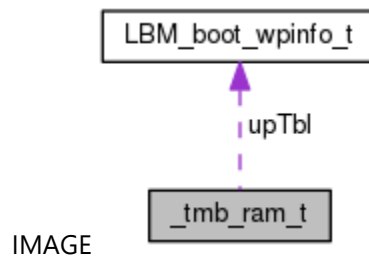


#### Class Members:

LBM_UINT32	btmode	
LBM_UINT32	sts1	
LBM_UINT32	sts2	
LBM_UINT32	sts3	
<a href="#">LBM_UPTBLINFO</a>	upTbl[UPTBLE_ID_MAX]	

### struct \_tmb\_ram\_t

Collaboration diagram for \_tmb\_ram\_t:



#### Class Members:

LBM_UINT32	bootNorWrite	
LBM_UINT32	dram1	
LBM_UINT32	dram2	
LBM_UINT32	dram3	
LBM_UINT32	dram_self_refresh	
LBM_UINT32	emmcTap	

LBM_UINT32	hwdtSts	
LBM_UINT32	mdUpdate	
LBM_UINT32	naviDetFactor	
LBM_UINT32	opdtLoadFactor	
LBM_UINT32	opdtLoadSatus	
LBM_UINT32	opdtUpdateReq	
LBM_UINT32	pwSts	
LBM_UINT32	ramjudgeSts	
LBM_UINT32	releaseNorType	
LBM_UINT32	sdUpdate	
LBM_UINT32	sectorNo	
LBM_UINT32	socCpuType	
LBM_UINT32	socEsNumber	
LBM_UINT32	spiBootDevice	
LBM_UINT32	sts	
LBM_UINT32	swdtSts	
LBM_UINT32	syscomSts	
LBM_UINT32	upmode	
<a href="#">LBM_UPTBLINFO</a>	upTbl[UPTBLE_ID_MAX]	

### struct RAM\_SM\_INFO\_t

System management information

#### Class Members:

BOOL	isErrorReset	
BOOL	isImmediateReset	
uint32_t	lastDramBackupStatus	
uint32_t	lastResetStatus	
uint32_t	lastWakeupType	
BOOL	needRenotifyStartPrm	
char	order_name[ <a href="#">SS_SM_ORDER_NAME_MAX</a> ]	
char	productPrivate[ <a href="#">RAM_PRODUCT_PRIVATE_MAX</a> ]	
char	signature_in[4]	
char	signature_out[4]	

## Macro Definition Documentation

### **#define RAM\_PRODUCT\_PRIVATE\_MAX (96)**

max length of ram product private

### **#define RET\_DEV\_ERR\_PARAM 3**

Common return value: Parameter error return value of API

### **#define RET\_DEV\_ERROR 4**

Common return value: Error of getting device info

### **#define RET\_DEV\_NORMAL 0**

Common return value: Normal return value of API

### **#define RET\_DEV\_RD\_ERR 2**

Read API return value: Acquire buffer error(malloc)

### **#define RET\_DEV\_RD\_ERR\_1 -1**

Read API return value: error type 1

### **#define RET\_DEV\_RD\_ERR\_2 -2**

Read API return value: error type 2

### **#define RET\_DEV\_RD\_ERR\_3 -3**

Read API return value: error type 3

### **#define RET\_DEV\_RD\_ERR\_4 -4**

Read API return value: error type 4

### **#define RET\_DEV\_RD\_ERR\_OTHER 1**

Read API return value: Internal error

### **#define RET\_DEV\_WT\_ERR 2**

Write API return value: Internal error

### **#define RET\_DEV\_WT\_ERR\_OTHER 1**

Write API return value: Other error



**#define ROM\_PRODUCT\_PRIVATE\_MAX 128**

max length of rom product private

**#define SS\_SM\_ORDER\_NAME\_MAX (32)**

max length of order file name

---

### **Typedef Documentation**

**typedef uint32\_t [EPROGUPDATE STATE](#)**

Program update state information

---

## Enumeration Type Documentation

### enum [BAI\\_OPEN t](#)

Access type to the boot information

### enum [DRAM\\_BACKUP\\_STATE](#)

DRAM backup state

### enum [EACTIVE\\_FLASHLOADER](#)

active flash load information

### enum [EBOOT\\_MODE](#)

boot mode information

### enum [ECONTROL\\_MODE](#)

control mode information

### enum [EDATARESET\\_MODE](#)

data reset mode information

### enum [ELASTILGRESET\\_MODE](#)

last illegal reset mode information

### enum [ENEXT\\_WAKEUP\\_TYPE](#)

next wakeup type

### enum [EUSER\\_MODE](#)

user mode information

### enum [RAM\\_WAKEUP\\_STATE](#)

System wakeup state type

---

## Function Documentation

**int mtdn\_backup\_Read (const char \* *path\_name*, int *i\_id*, int *i\_offset*, int *i\_size*, void \* *p\_buff*)**

### Brief

Read data from norflash device.

### Parameters:

in	<i>path_name</i>	const char* - Device path to read(such as "/dev/mtd1ro")
in	<i>i_id</i>	int - Main block ID(0, 2, 4, ...)
in	<i>i_offset</i>	int - Data offset
in	<i>i_size</i>	int - Data size to read
in	<i>p_buff</i>	Void* - Buffer for storing read data

### Return values:

<i>RET_DEV_NORMAL</i>	OK
<i>RET_DEV_ERROR</i>	Get device error
<i>RET_DEV_ERR_PARAM</i>	Parameter error
<i>RET_DEV_RD_ERR_OTHER</i>	Internal error
<i>RET_DEV_RD_ERR</i>	Acquire buffer error(malloc)
<i>RET_DEV_RD_ERR_1</i>	Error type 1
<i>RET_DEV_RD_ERR_2</i>	Error type 2
<i>RET_DEV_RD_ERR_3</i>	Error type 3
<i>RET_DEV_RD_ERR_4</i>	Error type 4

### Preconditions

There is no preconditions for this API.

### Change of internal state

Change of internal state according to the API does not occur.

### Classification

Public

### Type

Sync Only

### See also:

[mtdn\\_backup\\_Write](#)

**int mtdn\_backup\_Write (const char \* *path\_name*, int *i\_id*, int *i\_offset*, int *i\_size*, void \* *p\_buff*)**

### Brief

Write data to norflash device.

**Parameters:**

in	<i>path_name</i>	const char* - Device path to write(such as "/dev/mtd")
in	<i>i_id</i>	int - Main block ID(0, 2, 4, ...)
in	<i>i_offset</i>	int - Data offset
in	<i>i_size</i>	int - Data size to write
in	<i>p_buff</i>	Void* - Buffer for storing written data

**Return values:**

<i>RET_DEV_NORMAL</i>	OK
<i>RET_DEV_ERROR</i>	Get device error
<i>RET_DEV_ERR_PARAM</i>	Parameter error
<i>RET_DEV_WT_ERR_OTHER</i>	Other error
<i>RET_DEV_WT_ERR</i>	Internal error

**Preconditions**

There is no preconditions for this API.

**Change of internal state**

Change of internal state according to the API does not occur.

**Classification**

Public

**Type**

Sync Only

**See also:**

[mtdn\\_backup\\_Read](#)

**Resource\_manager**

```
struct RESM\_REQ\_EVENT\_t
struct RESM\_REQ\_EVENT\_t.prm
struct RESM\_INET\_STATUS\_t
struct RESM\_INET\_STATUS\_t.ifInfo
struct RESM\_STATUS\_t
```

**Macros**

```
#define NTFY_ResourceMgr_Availability MN_SS_RESOURCEMGR"/Availability"
#define RESM_ERR_t int32_t
#define RESM_E_OK (0)
#define RESM_E_PAR (-1)
#define RESM_E_NG (-2)
#define RESM_EV_t uint32_t
#define RESM_EV_NOP (0x00)
#define RESM_EV_MEM (0x01)
#define RESM_EV_NAND_STATUS (0x02)
```

```
#define RESM_RSV_t int32_t
#define RESM_INET_IF_MAX 5 /* tentative */
#define HWADDR_LEN (6)
```

### Enumerations

```
enum RESM_NAND_WRITE_STATUS_t { RESM_NAND_WRITE_ENABLE = ***,
    RESM_NAND_WRITE_DISABLE = -1 }
```

### Functions

```
RESM_ERR_t RESM_Open (const RESM_RSV_t *p_prim, uint32_t *p_ssnld)
RESM_ERR_t RESM_Close (uint32_t ssnld)
RESM_ERR_t RESM_ReqEvent (uint32_t ssnld, const RESM_REQ_EVENT_t *p_reqEvent)
RESM_ERR_t RESM_GetEventFd (uint32_t ssnld, int *p_fd)
RESM_ERR_t RESM_GetEvent (uint32_t ssnld, RESM_EV_t *p_evFlag)
RESM_ERR_t RESM_GetStatus (uint32_t ssnld, RESM_STATUS_t *p_status)
```

### Detailed Description

### Class Documentation

#### struct RESM\_REQ\_EVENT\_t

##### Class Members:

struct <a href="#">RESM_REQ_EVENT_t</a>	prm	
RESM_EV_t	reqEvent	

#### struct RESM\_REQ\_EVENT\_t.prm

##### Class Members:

uint32_t	restMemThresh	
----------	---------------	--

#### struct RESM\_INET\_STATUS\_t

##### Class Members:

struct <a href="#">RESM_INET_STATUS_t</a>	ifInfo[RESM_INET_IF_MAX]	
uint32_t	ifNum	

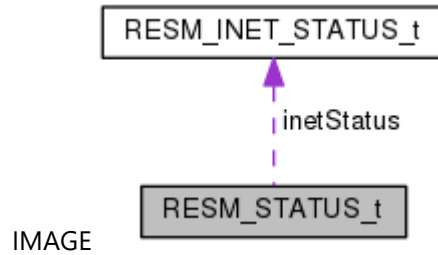
#### struct RESM\_INET\_STATUS\_t.ifInfo

**Class Members:**

uint8_t	hwaddr[HWADDR_LEN]	
char	name[32]	
uint64_t	rxSize	
uint64_t	txSize	

**struct RESM\_STATUS\_t**

Collaboration diagram for RESM\_STATUS\_t:

**Class Members:**

<a href="#">RESM_INET_STATUS_t</a>	inetStatus	
RESM_NAND_WRITE_STATUS_t	nandWriteStatus	
uint32_t	restMemSize	

**Function Documentation****RESM\_ERR\_t RESM\_Close (uint32\_t *ssnld*)****Summary**

Closes the session with resource manager.

**Parameters:**

in	<i>ssnld</i>	uint32_t - Session ID
----	--------------	-----------------------

**Return values:**

RESM_E_OK	Succeeded
RESM_E_PAR	Parameter error

**Preconditions**

An application must finish getting a session ID by [RESM\\_Open\(\)](#).

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**[RESM\\_Open](#)**RESM\_ERR\_t RESM\_GetEvent (uint32\_t *ssnld*, RESM\_EV\_t \* *p\_evFlag*)****Summary**

Gets the event from resource manager.

**Parameters:**

in	<i>ssnld</i>	uint32_t - Session ID
out	<i>p_evFlag</i>	RESM_EV_t* - Pointer to event

**RESM\_EV\_t Variables**

- 1 #define RESM\_EV\_t       uint32\_t
- 2 #define RESM\_EV\_NOP     (0x00)
- 3 #define RESM\_EV\_MEM     (0x01)
- 4 #define RESM\_EV\_NAND\_STATUS (0x02)

RESM\_EV\_NOP : No event notification

RESM\_EV\_MEM : Event notification for memory

RESM\_EV\_NAND\_STATUS : Event notification for NAND state

**Return values:**

<i>RESM_E_OK</i>	Succeeded
<i>RESM_E_PAR</i>	Parameter error
<i>RESM_E_NG</i>	Unexpected error

**Preconditions**An application must finish getting a session ID by [RESM\\_Open\(\)](#).**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**[RESM\\_ReqEvent](#)

## RESM\_ERR\_t RESM\_GetEventFd (uint32\_t *ssnld*, int \* *p\_fd*)

### Summary

Gets FD of the event to receive from resource manager.

### Parameters:

in	<i>ssnld</i>	uint32_t - Session ID
out	<i>p_fd</i>	int* - Pointer to file descriptor

### Return values:

<i>RESM_E_OK</i>	Succeeded
<i>RESM_E_PAR</i>	Parameter error
<i>RESM_E_NG</i>	Unexpected error

### Preconditions

An application must finish getting a session ID by [RESM\\_Open\(\)](#).

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

None

### See also:

None

## RESM\_ERR\_t RESM\_GetStatus (uint32\_t *ssnld*, [RESM\\_STATUS\\_t](#) \* *p\_status*)

### Summary

Gets system state.

### Parameters:

in	<i>ssnld</i>	uint32_t - Session ID
out	<i>p_status</i>	RESM_STATUS_t* - Pointer to system state

### [RESM\\_STATUS\\_t](#) Structure

```
1 typedef struct {
2   uint32_t restMemSize;           /* Remaining memory length (KB) */
3   RESM_NAND_WRITE_STATUS_t nandWriteStatus; /* Access permission / Prohibition state to NAND flash */
4   RESM_INET_STATUS_t inetStatus; /* Network IF statistical information after start */
5 } RESM_STATUS_t;
```

enum RESM\_NAND\_WRITE\_STATUS\_t Variables



RESM\_NAND\_WRITE\_ENABLE : NAND access permission  
 RESM\_NAND\_WRITE\_DISABLE : NAND access prohibition

**Notes**

When system records in NAND flash and it influences the lifetime of a device, STATUS(nandWriteStatus) becomes RESM\_NAND\_WRITE\_DISABLE. It is not in the state where WRITE fails.

**RESM\_INET\_STATUS\_t Structure**

```

1 typedef struct {
2   uint32_t ifNum;          /* Valid array at the number of interface and ifInfo */
3   struct {
4     char name[32];        /* Interface name */
5     uint64_t rxSize;      /* Receiving data length (KiB) */
6     uint64_t txSize;      /* Transmission data length (KiB) */
7     uint8_t hwaddr[HWADDR_LEN]; /* Hardware address (MAC address) */
8   } ifInfo[RESM_INET_IF_MAX];
9 } RESM_INET_STATUS_t;

```

**Return values:**

RESM_E_OK	Succeeded
RESM_E_PAR	Parameter error
RESM_E_NG	Unexpected error

**Preconditions**

An application must finish getting a session ID by [RESM\\_Open\(\)](#).

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**

None

**RESM\_ERR\_t RESM\_Open (const RESM\_RSV\_t \* p\_prim, uint32\_t \* p\_ssnld)**

**Summary**

Opens the session with resource manager.

**Parameters:**

in	p_prim	RESM_RSV_t* - Unused, NULL
out	p_ssnld	uint32_t* - Pointer to session ID

### RESM\_RSV\_t Variables

```
1 #define RESM_RSV_t    int32_t
2 #define RESM_RSV_NULL (0x00) // NULL
```

### Return values:

<i>RESM_E_OK</i>	Succeeded
<i>RESM_E_PAR</i>	Parameter error
<i>RESM_E_NG</i>	Unexpected error

### Preconditions

Availability of ResourceManager must be TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

None

### See also:

[RESM\\_Close](#)

**RESM\_ERR\_t RESM\_ReqEvent (uint32\_t *ssnId*, const [RESM\\_REQ\\_EVENT\\_t](#) \* *p\_reqEvent*)**

### Summary

Requests to issue an event.

### Parameters:

in	<i>ssnId</i>	uint32_t - Session ID
in	<i>p_reqEvent</i>	RESM_REQ_EVENT_t* - Pointer to event

### [RESM\\_REQ\\_EVENT\\_t](#) Structure

```
1 typedef struct {
2   RESM_EV_t reqEvent;    /* Event flag necessary to report */
3   struct {
4     uint32_t restMemThresh; /* Threshold of the remaining capacity of system memory */
5   } prm;
6 }RESM_REQ_EVENT_t;
```

### RESM\_EV\_t Variables

```
1 #define RESM_EV_t    uint32_t
2 #define RESM_EV_NOP  (0x00)
3 #define RESM_EV_MEM  (0x01)
4 #define RESM_EV_NAND_STATUS (0x02)
```

RESM\_EV\_NOP : No event notification  
 RESM\_EV\_MEM : Event notification for memory  
 RESM\_EV\_NAND\_STATUS : Eventnotification for NAND state

**Notes**

restMemThresh is valid only when RESM\_EV\_MEM is set to reqEvent.  
 ResourceManager issues RESM\_EV\_MEM event at the timing when the remaining capacity of system memory fell below the value (unit is BYTE) which an application specifies.

**Return values:**

RESM_E_OK	Succeeded
RESM_E_PAR	Parameter error

**Preconditions**

An application must finish getting a session ID by [RESM\\_Open\(\)](#).

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**

[RESM\\_GetEvent](#)

**Config**

struct [RAM\\_AccessPrivate](#)

*RAM Access Private data define. [More...](#)*

union [RAM\\_AccessPrivate. \\_unnamed](#)

struct [RAM\\_AccessPrivate. \\_unnamed . \\_unnamed](#)

*CWORD80 error define [More...](#)*

struct [ROM\\_AccessPrivate](#)

*ROM Access Private data define. [More...](#)*

union [ROM\\_AccessPrivate. \\_unnamed](#)

struct [ROM\\_AccessPrivate. \\_unnamed . \\_unnamed](#)

*CWORD80 error count, connect state [More...](#)*

struct [T\\_SS\\_SM\\_INIT\\_HOOK](#)

*Version up mode, Callback function. struct [T\\_SS\\_SM\\_INIT\\_HOOK\\_OUT\\_PARAM](#)*

Not in OOM Killer's service object, Group Relaunch service. [More...](#)

### Macros

```
#define SS_CONN_NONE 0
#define SS_CONN_HAS_CWORD80_ 1
#define SS_CONN_HASNOT_CWORD80_ 2
```

### Typedefs

```
typedef struct T\_SS\_SM\_INIT\_HOOK T\_SS\_SM\_INIT\_HOOK\_IN\_PARAM
```

### Functions

```
E_CWORD33_Status ss\_sm\_initHook (HANDLE hApp, const T\_SS\_SM\_INIT\_HOOK\_IN\_PARAM
    *inPrm, T\_SS\_SM\_INIT\_HOOK\_OUT\_PARAM *outPrm)
```

---

### Detailed Description

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### Class Documentation

#### struct RAM\_AccessPrivate

RAM Access Private data define.

#### Class Members:

union <a href="#">RAM_AccessPrivate</a>	<a href="#">__unnamed__</a>	
---	-----------------------------	--

#### union RAM\_AccessPrivate.\_\_unnamed\_\_

#### Class Members:

<a href="#">__unnamed__</a>	<a href="#">__unnamed__</a>	<i>CWORD80</i> error define
uint8_t	max[ <a href="#">RAM_PRODUCT_PRIVATE_MAX</a> ]	RAM product private max.

#### struct RAM\_AccessPrivate.\_\_unnamed\_\_.\_\_unnamed\_\_

*CWORD80* error define

#### Class Members:

uint32_t	dummy	
BOOL	is_CWORD80_Error	
uint32_t	retryOverAuthNGCount	

#### struct ROM\_AccessPrivate

ROM Access Private data define.

**Class Members:**

union	<a href="#">ROM_AccessPrivate</a>	__unnamed__	
-------	-----------------------------------	-------------	--

**union ROM\_AccessPrivate.\_\_unnamed\_\_****Class Members:**

<a href="#">__unnamed__</a>	__unnamed__	CWORD80 error count, connect state
uint8_t	max[ <a href="#">ROM_PRODUCT_PRIVATE_MAX</a> ]	ROM product private max.

**struct ROM\_AccessPrivate.\_\_unnamed\_\_.**

CWORD80 error count, connect state

**Class Members:**

uint32_t	_CWORD80_ConnState	
uint32_t	_CWORD80_ErrorCount	
uint32_t	_CWORD80_ForceDiscon	

**struct T\_SS\_SM\_INIT\_HOOK\_OUT\_PARAM**

Not in OOM Killer's service object, Group Relaunch service.

**Class Members:**

vector< string >	groupRelaunchSvcs	Not in OOM Killer's service object.
vector< string >	protectedSvcs	

**Function Documentation**

**E\_CWORD33\_Status ss\_sm\_initHook (HANDLE *hApp*, const [T\\_SS\\_SM\\_INIT\\_HOOK\\_IN\\_PARAM](#) \* *inPrm*, [T\\_SS\\_SM\\_INIT\\_HOOK\\_OUT\\_PARAM](#) \* *outPrm*)**

**Summary****Parameters:**

in	<i>hApp</i>	HANDLE - HANDLE Application
in	<i>inPrm</i>	<a href="#">T_SS_SM_INIT_HOOK_IN_PARAM</a> -
in	<i>outPrm</i>	<a href="#">T_SS_SM_INIT_HOOK_OUT_PARAM</a> -

[T\\_SS\\_SM\\_INIT\\_HOOK\\_IN\\_PARAM](#) struct

```

1 typedef struct T_SS_SM_INIT_HOOK {
2     BOOL blsVupMode; /* version up model */
3     E_CWORD33_Status (*cbRebootNoticeFunc)(HANDLE hApp); /* call back function */
4     T_SS_SM_INIT_HOOK()
5     : blsVupMode(FALSE),
6     cbRebootNoticeFunc(NULL) {
7     } /* constructor */
8 } T_SS_SM_INIT_HOOK_IN_PARAM;

```

T\_SS\_SM\_INIT\_HOOK\_IN\_PARAM struct

```

1 typedef struct {
2     std::vector<std::string> protectedSvcs; /* OOM Killer's protected service */
3     std::vector<std::string> groupRelaunchSvcs; /* group relunch service */
4 } T_SS_SM_INIT_HOOK_OUT_PARAM;

```

#### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

#### Preconditions

-None

#### Change of the internal state

save inPrm->cbRebootNoticeFunc to s\_confCtx.cbRebootNoticeFunc

#### Classification

Public

#### Type

Sync

#### See also:

None

## System\_manager

file [ss\\_system\\_manager\\_if.h](#)

This file supports the System Manager client interface. file [ss\\_system\\_manager\\_if\\_local.h](#)

This file supports the System Manager client interface. file [ss\\_system\\_manager\\_notifications.h](#)

This file supports the System Manager client interface. file [ss\\_system\\_manager\\_protocol.h](#)

This file supports the System Manager client interface. file [ss\\_system\\_manager\\_protocol\\_local.h](#)

This file supports the System Manager client interface. file [ss\\_test\\_clients.h](#)

**This file supports test client queue names. Classes**

struct [T\\_SystemManagerCpuResetInfo](#)

CPU Reset Info. struct [T\\_SystemManagerBootModeRequestResponse](#)

struct [T\\_SS\\_BootModeListStruct](#)

Data Reset Reason. [More...](#)

struct [T\\_SS\\_SM\\_UserModeOnOffNotification\\_Struct](#)

struct [T\\_SS\\_SM\\_START\\_DataStruct](#)

struct [T\\_SS\\_SM\\_STOP\\_DataStruct](#)

struct [T\\_SS\\_SM\\_START\\_ExtDataStructType](#)

struct [T\\_SS\\_SM\\_STOP\\_ExtDataStructType](#)

struct [T\\_SystemManagerLoggingRequestInfo](#)

Error Event Logging Info \*. [More...](#)

struct [T\\_SystemManagerClearLogsInfo](#)

Error Event Clear Logs Info \*. [More...](#)

struct [T\\_SMRequestMsg](#)

struct [\\_SS\\_SMCURRENTSTATE](#)

struct [\\_SMCompleteAck](#)

struct [\\_SMGroupLaunchTrigger](#)

class [Timer](#)

[Timer](#). class [EnumStringMap< enumT, fp >](#)

**[EnumStringMap](#). Macros**

#define [NTFY\\_HeartBeatAvailability](#) SERVICE\_HEARTBEAT"/Availability"

Indicates if HeartBeat is available or unavailable.

#define **SS\_PKG\_SPI\_LOADER** "SPI\_LOADER"

#define **SS\_PKG\_UBOOT** "UBOOT"

#define **SS\_PKG\_SECURE\_LOADER** "SECURE\_LOADER"

#define **SS\_PKG\_SYS\_UCOM** "SYS\_UCOM"

#define **SS\_PKG\_CAN\_UCOM** "CAN\_UCOM"

#define **SS\_PKG\_CWORD52\_UCOM** "\_CWORD52\_UCOM"

#define **SS\_PKG\_CWORD52\_DATA** "\_CWORD52\_DATA"

#define **SS\_PKG\_CWORD52\_FIXEQ** "\_CWORD52\_FIXEQ"

#define **SS\_PKG\_MAIN\_EMMC** "MAIN\_EMMC"

#define **SS\_PKG\_TARGETBOARD** "TARGETBOARD"

#define **SS\_PKG\_MAIN\_PRODUCT\_SI** "MAIN\_PRODUCT\_SI"

#define **SS\_PKG\_MAIN\_COMP\_SI** "MAIN\_COMP\_SI"

#define **SS\_PKG\_MAIN\_LPF\_SI** "MAIN\_LPF\_SI"

#define **SS\_PKG\_FACTORY\_FROM** "FACTORY\_FROM"

#define **SS\_PKG\_FACTORY\_FROM2** "FACTORY\_FROM2"

#define **SS\_PKG\_FACTORY\_EEPROM** "FACTORY\_EEPROM"

#define **SS\_PKG\_DECK** "DECK"

#define **SS\_PKG\_REAGION\_CODE** "REAGION\_CODE"

```

#define SS_PKG_CWORD8_DB "_CWORD8_DB"
#define SS_PKG_CAPACITIVE_TP "CAPACITIVE_TP"
#define SS_PKG_CWORD52_CWORD32 "_CWORD52__CWORD32_"
#define SS_PKG_RADIO_PARAMETER "RADIO_PARAMETER"
#define SS_PKG_VR_DATA "VR_DATA"
#define SS_PKG_NAVI_GPS "NAVI_GPS"
#define SS_PKG_DTV_MAIN "DTV_MAIN"
#define SS_PKG_DTV_EEPROM "DTV_EEPROM"
#define SS_PKG_DTV_BOOT "DTV_BOOT"
#define SS_PKG_DTV_STATION_DB "DTV_STATION_DB"
#define SS_PKG_XM_TYPE_ID "XM_TYPE_ID"
#define SS_PKG_XM_HW "XM_HW"
#define SS_PKG_XM_SW "XM_SW"
#define SS_PKG_XM_SXI "XM_SXI"
#define SS_PKG_XM_BB "XM_BB"
#define SS_PKG_XM_HDEC "XM_HDEC"
#define SS_PKG_XM_RF "XM_RF"
#define SS_PKG_XM_SPL "XM_SPL"
#define SS_PKG_XM_AREA "XM_AREA"
#define SS_PKG_NAVI_PROGRAM "NAVI_PROGRAM"
#define SS_PKG_NAVI_MAP "NAVI_MAP"
#define SS_PKG_PHASE_INFO "PHASE_INFO"
#define SS_PKG_SERIES_INFO "SERIES_INFO"
#define SS_PKG_FPGA "FPGA"
#define SS_PKG_VP_CWORD63 "VP_CWORD63_"
#define SS_PKG_VP_CWORD31 "VP_CWORD31_"
#define SS_PKG_PREINSTALL_DATA "PREINSTALL_DATA"
#define MSG_PSM_REBOOT_NOTIFY 0x11
#define szNTFY PowerLVI1 SERVICE_POWER"/LVI1"
    Deprecated !!
#define szNTFY PowerLVI2 SERVICE_POWER"/LVI2"
    Deprecated !!
#define szNTFY PowerLevel SERVICE_POWER"/Level"
    Indicates the current power level state.
#define szNTFY ShutdownPopup SERVICE_POWER"/ShutdownPopup"
#define szNTFY PowerPopup SERVICE_POWER"/PowerPopup"
#define NTFY\_SSSystemMgrAvailability SERVICE_SYSMANAGER"/Availability"
    System Manager availability -.
#define NTFY\_SSSystemMgrState SERVICE_SYSMANAGER"/State"
    System Manager state - Init.
#define NTFY\_SSSystemMgrPowerOnOff SERVICE_SYSMANAGER"/PowerOnOffState"
    Power ON notification for.
#define NTFY\_SSSystemMgrStartUpType SERVICE_SYSMANAGER"/StartUpType"
    Notification for start up type.
#define NTFY\_SSHUBootModes SERVICE_SYSMANAGER"/HeadUnitBootModes"

```



*Notification for boot modes.*

```
#define NTFY\_SSServiceWakeupStatus SERVICE_SYSMANAGER"/ServiceWakeupStatus"  
Service Wakeup state.  
#define NTFY\_SSNeedAplRestart SERVICE_SYSMANAGER"/NeedAplRestart"  
Notification for Need APL Restart.  
#define NTFY\_SSSystemMgrShutdownStarted SERVICE_SYSMANAGER"/ShutdownStarted"  
#define SS_SM_MAX_MODULE_NAME_LENGTH (256)  
#define SS_SM_MAX_TEST_CASE_NAME_SIZE (128)  
#define SS_SM_MAX_RESP_MSG_SIZE (2048)  
#define SS_SM_MAX_MODULE_LOG_MASK_LENGTH (50)  
#define SS_SM_MAX_MODULE_PATH_LENGTH (256)  
#define SS_SM_MAX_MODULE_ARGS_LENGTH (512)  
#define ZONE_ERR ZONEMASK(31)  
#define LOG\_ERROR(pStr)  
#define LOG_SUCCESS(pStr) _CWORD33_LOG(ZONE_INFO, __FUNCTION__, " %s successful",  
    pStr);  
#define LOG STATUS(l_eStatus, pStr)  
#define CALL AND LOG STATUS(fnc)  
#define LOG STATUS IF ERRORED(l_eStatus, pStr)  
#define CALL AND LOG STATUS IF ERRORED(fnc)  
#define MAP\_ENTRY(f_map, f_enum) f_map[ f_enum ] = #f_enum  
#define CWORD33 LOG RECEIVED FROM(hApp) _CWORD33_LOG(ZONE_INFO, __FUNCTION__,  
    " Received from %s", _CWORD33_GetMsgSrc(hApp))  
#define CWORD33 LOG WHEN COMPILED  
#define SS_ASSERT(x)  
#define SS_ASSERT_ERRNO(x)  
#define SS_ASSERT_LOG(x, fmt, ...)  
#define SS_STATIC_ASSERT(expr)
```

## Typedefs

```
typedef enum T\_SMHBProtocolMessages EHBProtocolMessages  
HeatBeat Protocol Command heartbeat service protocol > define all protocol messages  
in and out of heart beat thread that are pertinent to the functionality offered by heart  
beat thread.  
typedef UI_32 SMProgUpdateState  
Program update status.  
typedef struct T\_SystemManagerCpuResetInfo TSystemManagerCpuResetInfo  
CPU Reset Info.  
typedef struct T\_SystemManagerBootModeRequestResponse  
TSystemManagerBootModeRequestResponse  
typedef struct T\_SS\_BootModeListStruct TSS\_BootModeListStruct  
Data Reset Reason.  
typedef struct T\_SS\_SM\_UserModeOnOffNotification\_Struct  
T\_SS\_SM\_UserModeOnOffNotification\_StructType  
typedef struct T\_SS\_SM\_START\_DataStruct T\_SS\_SM\_START\_DataStructType
```

```

typedef struct T\_SS\_SM\_STOP\_DataStruct T\_SS\_SM\_STOP\_DataStructType
typedef struct T\_SystemManagerLoggingRequestInfo TSystemManagerLoggingRequestInfo
    Error Event Logging Info *.
typedef struct T\_SystemManagerClearLogsInfo TSystemManagerClearLogsInfo
    Error Event Clear Logs Info *.
typedef struct T\_SMRequestMsg TSMRequestMessage
typedef enum SS\_SystemManagerProtocol SS\_SystemManagerProtocol
typedef struct SS\_SMCURRENTState SS\_SMCURRENTState
typedef struct SMCompleteAck SMStopCompleteAck
typedef struct SMGroupLaunchTrigger SMGroupLaunchTrigger
typedef UI_64 SS\_VersionNumberType

```

### Enumerations

```

enum T\_SMHBProtocolMessages { SS\_HEARTBEAT\_PRINT\_CONNECTIONS = ***,
SS\_HEARTBEAT\_PRINT\_STACK = ***, SS\_HEARTBEAT\_PERIODIC\_STATUS\_REQ = ***,
SS\_HEARTBEAT\_PERIODIC\_RESP = ***, SS\_HEARTBEAT\_START = ***,
SS\_HEARTBEAT\_STOP = ***, SS\_HEARTBEAT\_DELETE\_MODULE\_ENTRY = ***,
SS\_HEARTBEAT\_MSG\_CATEGORY\_REPORT = ***, SS\_HEARTBEAT\_ERROR\_DETECTED =
***, SS\_HEARTBEAT\_APPEND\_MODULE\_ENTRY = ***,
SS\_HEARTBEAT\_AVAIL\_CHECK\_REQ = ***, SS\_HEARTBEAT\_AVAIL\_CHECK\_RESP = ***,
SS\_HEARTBEAT\_RESPONSE = ***, SS\_HEARTBEAT\_REQUEST = *** }HeatBeat Protocol
Command heartbeat service protocol > define all protocol messages in and out of
heart beat thread that are pertinent to the functionality offered by heart beat thread.
enum ESMBootModeInfo { e\_SS\_SM\_BOOT\_MODE\_INVALID = -1,
e\_SS\_SM\_BOOT\_MODE\_APPLICATION,
e\_SS\_SM\_BOOT\_MODE\_PROGRAMMING }Boot mode information.
enum ESMDataResetModeInfo { e\_SS\_SM\_DATA\_RESET\_MODE\_NONE,
e\_SS\_SM\_DATA\_RESET\_MODE\_USER, e\_SS\_SM\_DATA\_RESET\_MODE\_FACTORY,
e\_SS\_SM\_DATA\_RESET\_MODE\_PROGUPDATE }Data reset mode information.
enum ESMDramBackupStatus { e\_SS\_SM\_DRAM\_BACKUP\_UNSET = -1,
e\_SS\_SM\_DRAM\_BACKUP\_OK, e\_SS\_SM\_DRAM\_BACKUP\_NG }DRAM backup status.
enum ESMResetStatus { e\_SS\_SM\_RESET\_STATUS\_UNSET = -1,
e\_SS\_SM\_RESET\_STATUS\_NONE, e\_SS\_SM\_RESET\_STATUS\_NG,
e\_SS\_SM\_RESET\_STATUS\_IMMEDIATE }Reset status.
enum EMRelaunchStatus { e\_SS\_SM\_RELAUNCH\_STATUS\_NONE,
e\_SS\_SM\_RELAUNCH\_STATUS\_SAFE,
e\_SS\_SM\_RELAUNCH\_STATUS\_ERR }Relaunch status.
enum ESMCpuResetReason { e\_SS\_SM\_CPU\_RESET\_REASON\_INVALID = -1,
e\_SS\_SM\_CPU\_RESET\_REASON\_NORMAL = ***,
e\_SS\_SM\_CPU\_RESET\_REASON\_DATA\_RESET,
e\_SS\_SM\_CPU\_RESET\_REASON\_USER\_FORCE\_RESET,
e\_SS\_SM\_CPU\_RESET\_REASON\_GENERIC,
e\_SS\_SM\_CPU\_RESET\_REASON\_GENERIC\_ERR =

```

```

e_SS_SM_CPU_RESET_REASON_GENERIC, e_SS_SM_CPU_RESET_REASON_DSP_ERR,
e_SS_SM_CPU_RESET_REASON_IMMRESET_NORMAL,
e_SS_SM_CPU_RESET_REASON_CRITICAL_ERR }CPU Reset Reason.

enum ESMDataResetType { e_SS_SM_DATA_RESET_TYPE_USER = ***,
e_SS_SM_DATA_RESET_TYPE_FACTORY,
e_SS_SM_DATA_RESET_TYPE_CONFIGURATION,
e_SS_SM_DATA_RESET_TYPE_PROGUPDATE }Data Reset Reason.

enum eSMUserLogType { e_SS_SM_CAPTURE_ALL_LOGS = ***, e_SS_SM_SCREEN_CAPTURE,
e\_SS\_SM\_CAPTURE\_CWORD33\_LOGS, e_SS_SM_USER_FORCE_RESET,
e\_SS\_SM\_CAPTURE\_DEV\_LOGS, e_SS_SM_CAPTURE_MODULE_LOGS,
e\_SS\_SM\_CAPTURE\_DTC\_LOGS, e_SS_SM_CAPTURE_NAVI_LOGS,
e\_SS\_SM\_CAPTURE\_GROUP\_RELAUNCH }

enum \_SS\_SystemManagerProtocol { SS_SYSTEM_MANAGER_PROTOCOL_BEGINNING_INDEX
= ***, SS\_SM\_NOTIFY\_SYSTEM\_LAUNCH\_COMPLETE =
SS_SYSTEM_MANAGER_PROTOCOL_BEGINNING_INDEX,
SS_SM_PROTOCOL_INTERFACE_END, SS\_SM\_START, SS\_SM\_START\_COMPL\_RSPN,
SS\_SM\_STOP, SS\_SM\_STOP\_COMPL\_RSPN, SS\_SM\_WAKEUP\_MODULES\_CMPL\_RSPN,
SS\_SM\_SHUTDOWN\_MODULES\_CMPL\_RSPN, SS\_SM\_WAKEUP\_MODULES,
SS\_SM\_POWER\_OFF\_MODULES, SS\_SM\_SHUTDOWN\_MODULES, SS\_SM\_CRNT\_STATE\_QUERY,
SS\_SM\_CRNT\_STATE\_QUERY\_RSPN, SS\_SM\_SYSTEM\_MODE\_INFO\_REQ,
SS\_SM\_SYSTEM\_MODE\_INFO\_RSPN, SS\_SM\_INITCOMP\_REP,
SS_SM_PROTOCOL_OPEN_SESSION_REQ, SS_SM_PROTOCOL_OPEN_SESSION_ACK,
SS\_SM\_GET\_START\_EXT\_INFO, SS\_SM\_GET\_STOP\_EXT\_INFO, SS\_SM\_BOOT\_MODE\_SET\_REQ,
SS\_SM\_BOOT\_MODE\_SET\_RESP, SS\_SM\_DATA\_RESET\_MODE\_SET\_REQ,
SS\_SM\_PROG\_UPDATE\_STATE\_SET\_REQ, SS_SM_CPU_RESET_REQ,
SS_SM_LOCAL_DATA_RESET_REQ, SS_SM_REMOTE_DATA_RESET_REQ,
SS\_SM\_FWD\_STARTUP\_CONFIRMATION\_MSG\_REQ,
SS\_SM\_FWD\_START\_CONFIRMATION\_MSG\_RESP, SS\_SM\_POWER\_REQUEST\_MSG,
SS\_SM\_POWER\_REQUEST\_MSG\_RESP, SS\_SM\_USER\_MODE\_SET\_RESP,
SS_SM_DEBUG_VAR_CODE_DATA_SET_REQ, SS_SM_SET_BOOTLOADER_INFO,
SS_SM_GET_BOOTLOADER_INFO, SS_SM_WAKEUP_ORDER_SET_REQ,
SS_SM_NEXT_WAKEUP_TYPE_SET_REQ, SS\_SM\_EVENT\_ERROR,
SS\_SM\_EVENT\_ERROR\_TO\_SSL, SS\_SM\_ERROR\_EVENT\_LOGGING\_START\_REQ,
SS\_SM\_ERROR\_EVENT\_LOGGING\_START\_RSPN, SS\_SM\_ERROR\_EVENT\_ARTIFACT\_REQ,
SS\_SM\_ERROR\_EVENT\_ARTIFACT\_RSPN, SS\_SM\_ERROR\_EVENT\_LOGGING\_COMPLETE,
SS\_SM\_ERROR\_EVENT\_LOGGING\_COMPLETE\_RSPN,
SS_SM_ERROR_EVENT_TIMER_ID_LOGGER_START_REQ,
SS_SM_ERROR_EVENT_TIMER_ID_DEBUG_DUMP_RSPN,
SS_SM_ERROR_EVENT_TIMER_ID_BOOT_MICRO_LOG_RSPN,
SS_SM_ERROR_EVENT_TIMER_ID_CORE_FILE_POLL, SS\_SM\_USER\_INVOKED\_LOG\_REQ,
SS\_SM\_ERROR\_EVENT\_EEL\_EXPORT\_REQ,
SS\_SM\_ERROR\_EVENT\_CWORD33\_EMMC\_LOGS\_REQ,
SS\_SM\_ERROR\_EVENT\_CWORD33\_EMMC\_LOGS\_RSPN,
SS\_SM\_ERROR\_EVENT\_CLR\_LOGS\_REQ, SS\_SM\_ERROR\_EVENT\_PROCESS\_EXIT,
SS\_SM\_ERROR\_EVENT\_DIAG\_LOG\_REQ, SS\_SM\_ERROR\_EVENT\_CAN\_LOG\_REQ,
SS\_SM\_ERROR\_EVENT\_DTC\_LOG\_REQ, SS_SM_GROUP_LAUNCH_TRIGGER,
SS\_SM\_DEBUG\_DUMP, SS\_SM\_DEBUG\_DUMP\_RSPN, SS\_SM\_MODULE\_RELAUNCH\_REQ,

```

[SS SM CPU HIGH LOAD DETECTED](#), [SS SM PROPAGATE SYSTEM ERROR](#),  
[SS SM\\_CWORD56\\_HEARTBEAT\\_REQ](#), [SS SM\\_CWORD56\\_HEARTBEAT\\_RSPN](#),  
[SS SM EVENT USER DATA RESET](#), [SS SM BOOT MICRO RESET NTF](#),  
[SS SM BOOT MICRO LOG REQ](#), [SS SM BOOT MICRO LOG RSP](#), [SS SM PRE START](#),  
[SS SM PRE START COMPL\\_RSPN](#), [SS SM PRE STOP](#), [SS SM PRE STOP COMPL\\_RSPN](#),  
[SS SM BACKGROUND START](#), [SS SM BACKGROUND START COMPL\\_RSPN](#),  
[SS SM BACKGROUND STOP](#), [SS SM BACKGROUND STOP COMPL\\_RSPN](#),  
**SS\_SYSTEM\_MANAGER\_PROTOCOL\_ENDING\_INDEX =**  
 SS\_SM\_BACKGROUND\_STOP\_COMPL\_RSPN }

## Functions

VOID **SendDebugDumpResponseToSystemManager** (std::string &f\_messageStr)  
 E\_CWORD33\_Status **\_CWORD33\_SSFrameworkInterface** (HANDLE hApp)  
 template<typename T > E\_CWORD33\_Status [ReadMsg](#) (HANDLE hApp, T &Data,  
 ESMRetrieveTypes f\_eRetrieveMethod=eSMRRelease)  
[EnumStringMap< enumT, fp >::EnumStringMap](#) ()  
[EnumStringMap< enumT, fp >::~EnumStringMap](#) ()  
 SS\_String **EnumStringMap< enumT, fp >::GetStr** (enumT f\_enum)

## Variables

const PCSTR **TIMER\_SERVICE\_NAME** = "TIMER"

---

## Detailed Description

---

## Class Documentation

### struct T\_SystemManagerBootModeRequestResponse

#### Class Members:

E_CWORD33_Status	e_CWORD33_Status	
<a href="#">ESMBootModelInfo</a>	hostBootMode	

### struct T\_SS\_BootModeListStruct

Data Reset Reason.

#### Class Members:

EPWR_SC_CWORD56_BOOT_MODE_TYPE	_CWORD56_BootMode	
<a href="#">ESMBootModelInfo</a>	hostBootMode	

### struct T\_SS\_SM\_STOP\_DataStruct

Data passed as part of SS\_SM\_STOP '\_CWORD78\_OnStop'/'evStop' message \*

**Class Members:**

EPWR_USER_MODE_TYPE	lastUserMode	
EPWR_SHUTDOWN_TRIGGER_TYPE	shutdownTrigger	

**struct T\_SS\_SM\_START\_ExtDataStructType**

Extended Parameter for \_CWORD33\_OnStart \*

**Class Members:**

BOOL	isMapDiffUpdated	
BOOL	isMapUpdated	
BOOL	isProgUpdated	
<a href="#">EMRelaunchStatus</a>	relaunchStatus	
uint8_t	reserved[SS_SM_START_EXT_RSV_SIZE]	

**struct T\_SS\_SM\_STOP\_ExtDataStructType**

Extended Parameter for \_CWORD33\_OnStop \*

**Class Members:**

BOOL	isProgUpdated	
uint8_t	reserved[SS_SM_STOP_EXT_RSV_SIZE]	

**struct T\_SystemManagerLoggingRequestInfo**

Error Event Logging Info \*.

**Class Members:**

<a href="#">eSMUserLogType</a>	logType	
CHAR	messageStr[SS_SM_LOG_MSG_STR_SIZE]	
CHAR	suffixStr[SS_SM_SUFFIX_STR_SIZE]	

**struct T\_SystemManagerClearLogsInfo**

Error Event Clear Logs Info \*.

**Class Members:**

void *	rsv	
--------	-----	--

**struct T\_SMRequestMsg**

Message data payload structure from system manager to heartbeat

**Class Members:**

CHAR	pstModuleName[MAX_QUEUE_NAME_SIZE]	
------	------------------------------------	--

**struct \_SS\_SMCurrentState****Class Members:**

CHAR	respMsgString[SS_SM_MAX_RESP_MSG_SIZE]	
CHAR	testCaseIdString[SS_SM_MAX_TEST_CASE_NAME_SIZE]	

**struct \_SMCompleteAck****Class Members:**

CHAR	szServiceName[MAX_QUEUE_NAME_SIZE]	
UI_16	unSessionId	

**struct \_SMGroupLaunchTrigger****Class Members:**

UI_32	NextGroupId	
-------	-------------	--

**Macro Definition Documentation**

```
#define _CWORD33_LOG_RECEIVED_FROM( hApp) _CWORD33_LOG(ZONE_INFO,
__FUNCTION__, " Received from %s", _CWORD33_GetMsgSrc(hApp))
```

Log whom we received message or notification from.

Use this macro to ensure that the string "Received from" is uniformly logged; this string can be grepped on to find when/where callback functions were invoked.

```
#define _CWORD33_LOG_WHEN_COMPILED
```

**Value:** \_CWORD33\_LOG(ZONE\_INFO, \_\_FUNCTION\_\_, " %s was compiled at %s @ %s", \
\_\_FILE\_\_, \_\_DATE\_\_, \_\_TIME\_);

Log when this file was compiled.

Useful when overlaying a delivered object file ( from an official build ) with a debug-built obj file - verifies that the debug file did indeed get loaded.

```
#define CALL_AND_LOG_STATUS( fnc)
```

**Value:** l\_eStatus = (fnc); \
[LOG STATUS](#)(l\_eStatus, #fnc)

Call the function and log the returned E\_CWORD33\_Status.

### **#define CALL\_AND\_LOG\_STATUS\_IF\_ERRORED( fnc)**

```
Value:l_eStatus = (fnc); \
      LOG_STATUS_IF_ERRORED(l_eStatus, #fnc)
```

Call the function and log the returned E\_CWORD33\_Status on failure.

### **#define LOG\_ERROR( pStr)**

```
Value:_CWORD33_LOG(ZONE_ERR, __FUNCTION__ \
      , " Error: %s errored: %d/%s" \
      , pStr \
      , l_eStatus \
      , GetStr(static_cast<E_CWORD33_Status>(l_eStatus)).c_str());
```

Log pStr and l\_eStatus

### **#define LOG\_STATUS( l\_eStatus, pStr)**

```
Value:if ( e_CWORD33_StatusOK != l_eStatus ) \
      { \
      LOG_ERROR(pStr); \
      } \
      else \
      { \
      LOG_SUCCESS(pStr); \
      }
```

Log pStr and success or failure. Include l\_eStatus when not successful.

### **#define LOG\_STATUS\_IF\_ERRORED( l\_eStatus, pStr)**

```
Value:if ( e_CWORD33_StatusOK != l_eStatus ) \
      { \
      LOG_ERROR(pStr); \
      }
```

Log pStr on failure, including E\_CWORD33\_Status.

### **#define MAP\_ENTRY( f\_map, f\_enum) f\_map[ f\_enum ] = #f\_enum**

Simplify initializing string map entry.

Use to set a map entry's key and value to the specified enum and the enum's literal text ( i.e., stringified ) equivalent.

### **#define NOTIFY\_SSSystemMgrShutdownStarted SERVICE\_SYSMANAGER"/ShutdownStarted"**

Notification used by HMI to know when a Shutdown Request has been received from the CWORD56

### **#define SS\_ASSERT( x)**

```
Value:if (!(x)) { \
      _CWORD33_LOG(ZONE_ERR, __FUNCTION__, "SS_ASSERT"); \
      }
```

### **#define SS\_ASSERT\_ERRNO( x)**

```
Value:if (!(x)) { \
    _CWORD33_LOG(ZONE_ERR, __FUNCTION__, "SS_ASSERT %d:%s", errno, strerror(errno)); \
}
```

### **#define SS\_ASSERT\_LOG( x, fmt, ...)**

```
Value:if (!(x)) { \
    _CWORD33_LOG(ZONE_ERR, __FUNCTION__, "SS_ASSERT " fmt, ## __VA_ARGS__); \
}
```

### **#define SS\_STATIC\_ASSERT( expr)**

```
Value:{ \
    char STATIC_ASSERTION_FAILED[(expr) ? 1 : -1]; \
    (void)STATIC_ASSERTION_FAILED; \
}
```

### **#define szNTFY\_PowerPopup SERVICE\_POWER"/PowerPopup"**

Notification that Power Service publishes for subscribers ( ie, HMI ) to display a popup indicating the type of CPMSHOWPOWERPOPUP.

1. Normal
2. Critical
3. Application Critical

### **#define szNTFY\_ShutdownPopup SERVICE\_POWER"/ShutdownPopup"**

Notification that Power Service publishes for subscribers ( ie, HMI ) to display a popup indicating the type of shutdown condition.

1. Power Save
2. BatteryCut
3. Low Voltage

---

## **Typedef Documentation**

### **typedef enum [SS\\_SystemManagerProtocol](#) [SS\\_SystemManagerProtocol](#)**

System control protocol type.

### **typedef struct [T\\_SS\\_SM\\_START\\_DataStruct](#) [T\\_SS\\_SM\\_START\\_DataStructType](#)**

Parameters of the following message.

SS\_SM\_START '\_CWORD33\_OnStart'/'evStart'

SS\_SM\_PRE\_START '\_CWORD33\_OnPreStart'/'evPreStart'

SS\_SM\_BACKGROUND\_START '\_CWORD33\_OnBackgroundStart'/'evBackgroundStart'



**typedef struct** [T SS SM STOP DataStruct](#) [T SS SM STOP DataStructType](#)

Data passed as part of SS\_SM\_STOP '\_CWORD78\_OnStop'/'evStop' message \*

**typedef struct** [T SS SM UserModeOnOffNotification Struct](#)  
[T SS SM UserModeOnOffNotification StructType](#)

Data passed in the NTFY\_SSSystemMgrPowerOnOff and \* NTFY\_SSSystemMgrUserMode notification messages \*

**typedef struct** [T SMRequestMsg](#) [TSMRequestMessage](#)

Message data payload structure from system manager to heartbeat

**typedef struct** [T SystemManagerClearLogsInfo](#) [TSystemManagerClearLogsInfo](#)

Error Event Clear Logs Info \*.

**typedef struct** [T SystemManagerLoggingRequestInfo](#) [TSystemManagerLoggingRequestInfo](#)

Error Event Logging Info \*.

---

## Enumeration Type Documentation

**enum** [SS SystemManagerProtocol](#)

System control protocol type.

### Enumerator

**SS\_SM\_NOTIFY\_SYSTEM\_LAUNCH\_COMPLETE** System Manager to Power manager.

**SS\_SM\_START** Normal-boot start request.

**SS\_SM\_START\_COMPL\_RSPN** Normal-boot start completion notification.

**SS\_SM\_STOP** Shutdown request.

**SS\_SM\_STOP\_COMPL\_RSPN** Shutdown completion notification.

**SS\_SM\_WAKEUP\_MODULES\_CMPL\_RSPN** Response to request of power state transition to power\_service.(message format to use: [wakeInfo](#))

**SS\_SM\_SHUTDOWN\_MODULES\_CMPL\_RSPN** SM to power.

**SS\_SM\_WAKEUP\_MODULES** client to service

**SS\_SM\_POWER\_OFF\_MODULES** client to service  
**SS\_SM\_SHUTDOWN\_MODULES** client to service  
**SS\_SM\_CRNT\_STATE\_QUERY** client to service  
**SS\_SM\_CRNT\_STATE\_QUERY\_RSPN** service to client  
**SS\_SM\_SYSTEM\_MODE\_INFO\_REQ** client to service  
**SS\_SM\_SYSTEM\_MODE\_INFO\_RSPN** service to client  
**SS\_SM\_INITCOMP\_REP** client to service  
**SS\_SM\_GET\_START\_EXT\_INFO** \_CWORD33\_OnStart Extended Parameter  
**SS\_SM\_GET\_STOP\_EXT\_INFO** \_CWORD33\_OnStop Extended Parameter  
**SS\_SM\_BOOT\_MODE\_SET\_REQ** Client to Service (Sys Mgr)  
**SS\_SM\_BOOT\_MODE\_SET\_RESP** Service (Sys Mgr) to Client.  
**SS\_SM\_DATA\_RESET\_MODE\_SET\_REQ** Client to Service (Sys Mgr)  
**SS\_SM\_PROG\_UPDATE\_STATE\_SET\_REQ** Client to Service (Sys Mgr)  
**SS\_SM\_FWD\_STARTUP\_CONFIRMATION\_MSG\_REQ** Pwr Svc to Sys Mgr.  
**SS\_SM\_FWD\_START\_CONFIRMATION\_MSG\_RESP** Sys Mgr to Pwr Svc.  
**SS\_SM\_POWER\_REQUEST\_MSG** Startup process start request from power\_service.  
**SS\_SM\_POWER\_REQUEST\_MSG\_RESP** Sys Mgr to Pwr Svc.  
**SS\_SM\_USER\_MODE\_SET\_RESP** Service (Sys Mgr) to Client (Pwr Svc)  
**SS\_SM\_EVENT\_ERROR** SM to HMI(CWORD77)  
**SS\_SM\_EVENT\_ERROR\_TO\_SSL** SM to SSL.  
**SS\_SM\_ERROR\_EVENT\_LOGGING\_START\_REQ** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_LOGGING\_START\_RSPN** SM to SSL.  
**SS\_SM\_ERROR\_EVENT\_ARTIFACT\_REQ** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_ARTIFACT\_RSPN** SM to SSL.  
**SS\_SM\_ERROR\_EVENT\_LOGGING\_COMPLETE** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_LOGGING\_COMPLETE\_RSPN** SM to SSL.  
**SS\_SM\_USER\_INVOKED\_LOG\_REQ** Key Shadow to SM.  
**SS\_SM\_ERROR\_EVENT\_EEL\_EXPORT\_REQ** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_CWORD33\_EMMC\_LOGS\_REQ** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_CWORD33\_EMMC\_LOGS\_RSPN** SM to SVC.  
**SS\_SM\_ERROR\_EVENT\_CLR\_LOGS\_REQ** SVC to SM.  
**SS\_SM\_ERROR\_EVENT\_PROCESS\_EXIT** SM to SM.  
**SS\_SM\_ERROR\_EVENT\_DIAG\_LOG\_REQ** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_CAN\_LOG\_REQ** SSL to SM.  
**SS\_SM\_ERROR\_EVENT\_DTC\_LOG\_REQ** SSL to SM.

**SS\_SM\_DEBUG\_DUMP** SM to client.  
**SS\_SM\_DEBUG\_DUMP\_RSPN** client to SM  
**SS\_SM\_MODULE\_RELAUNCH\_REQ** client to SM  
**SS\_SM\_CPU\_HIGH\_LOAD\_DETECTED** client to SM  
**SS\_SM\_PROPAGATE\_SYSTEM\_ERROR** client to SM  
**SS\_SM\_CWORD56\_HEARTBEAT\_REQ** PS to SM.  
**SS\_SM\_CWORD56\_HEARTBEAT\_RSPN** SM to PS.  
**SS\_SM\_EVENT\_USER\_DATA\_RESET** SM to MS.  
**SS\_SM\_BOOT\_MICRO\_RESET\_NTF** Logging Shadow to SM.  
**SS\_SM\_BOOT\_MICRO\_LOG\_REQ** SM to Logging Shadow.  
**SS\_SM\_BOOT\_MICRO\_LOG\_RSP** Logging Shadow to SM aka ENDING\_INDEX.  
**SS\_SM\_PRE\_START** Pre-boot(+BA) start request.  
**SS\_SM\_PRE\_START\_COMPL\_RSPN** Pre-boot(+BA) start completion notification.  
**SS\_SM\_PRE\_STOP** Pre-boot(+BA) stop request.  
**SS\_SM\_PRE\_STOP\_COMPL\_RSPN** Pre-boot(+BA) stop completion notification.  
**SS\_SM\_BACKGROUND\_START** Background-boot(+BA) start request.  
**SS\_SM\_BACKGROUND\_START\_COMPL\_RSPN** Background-boot(+BA) start completion notification.  
**SS\_SM\_BACKGROUND\_STOP** Background-boot(+BA) stop request.  
**SS\_SM\_BACKGROUND\_STOP\_COMPL\_RSPN** Background-boot(+BA) stop completion notification.

enum [eSMUserLogType](#)

1 Error Event Logging enumerations \*

**Enumerator**

**e\_SS\_SM\_CAPTURE\_ALL\_LOGS** Capture all logs.  
**e\_SS\_SM\_SCREEN\_CAPTURE** Capture screenshot.  
**e\_SS\_SM\_CAPTURE\_CWORD33\_LOGS** Capture application log.  
**e\_SS\_SM\_USER\_FORCE\_RESET** Capture logs are forcibly reset.  
**e\_SS\_SM\_CAPTURE\_DEV\_LOGS** Capture device log.  
**e\_SS\_SM\_CAPTURE\_MODULE\_LOGS** Capture debug log.  
**e\_SS\_SM\_CAPTURE\_DTC\_LOGS** Capture DTC event log.  
**e\_SS\_SM\_CAPTURE\_NAVI\_LOGS** Capture Navi event log.  
**e\_SS\_SM\_CAPTURE\_GROUP\_RELAUNCH** Capture log by Group Relaunch.

## enum [T SMHBProtocolMessages](#)

HeatBeat Protocol Command heartbeat service protocol > define all protocol messages in and out of heart beat thread that are pertinent to the functionality offered by heart beat thread.

### Enumerator

**SS\_HEARTBEAT\_PRINT\_CONNECTIONS** client to hb thread  
**SS\_HEARTBEAT\_PRINT\_STACK** client to hb thread  
**SS\_HEARTBEAT\_PERIODIC\_STATUS\_REQ** sysmgr to hb thread  
**SS\_HEARTBEAT\_PERIODIC\_RESP** hb thread to sysmgr  
**SS\_HEARTBEAT\_START** sysmgr to hb thread  
**SS\_HEARTBEAT\_STOP** sysmgr to hb thread  
**SS\_HEARTBEAT\_DELETE\_MODULE\_ENTRY** sysmgr to hb thread  
**SS\_HEARTBEAT\_MSG\_CATEGORY\_REPORT** report message  
**SS\_HEARTBEAT\_ERROR\_DETECTED** hb thread to sysmgr  
**SS\_HEARTBEAT\_APPEND\_MODULE\_ENTRY** sysmgr to hb thread  
**SS\_HEARTBEAT\_AVAIL\_CHECK\_REQ** sysmgr to hb thread  
**SS\_HEARTBEAT\_AVAIL\_CHECK\_RESP** sysmgr to hb thread  
**SS\_HEARTBEAT\_RESPONSE** client to hb thread  
**SS\_HEARTBEAT\_REQUEST** hb thread to client

---

### Function Documentation

`template<typename enumT , void(*) (std::map< enumT, SS_String > &m_strMap) fp>  
EnumStringMap< enumT, fp >::EnumStringMap () [inline]`

#### Summary

Default constructor of [EnumStringMap](#) class.

#### Parameters:

None	
------	--

#### Return values:

None	
------	--

#### Preconditions

None.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

None

### See also:

[~EnumStringMap](#), Initialize

**template<typename T > E\_CWORD33\_Status ReadMsg (HANDLE *hApp*, T & *Data*, ESMRetrieveTypes *f\_eRetrieveMethod* = eSMRRelease)**

### Summary

check the data information of msg.

### Parameters:

in	<i>hApp</i>	HANDLE - HANDLE Application
in	<i>Data</i>	T - The reference to the Data memory location
in	<i>f_eRetrieveMethod</i>	ESMRetrieveTypes - The msg retrieval method ( release or retain )

T template type

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter

### Preconditions

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Method only

### See also:

None

**template**<typename enumT , void(\*)**(std::map**< enumT, SS\_String > &m\_strMap) fp>  
**EnumStringMap**< enumT, fp >::~**EnumStringMap** ()[inline]

~

## Summary

### Parameters:

None	
------	--

### Return values:

None	
------	--

### Preconditions

None.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

None

### See also:

[EnumStringMap](#)

## Logger\_service

struct [\\_TVINnumber](#)

VIN numbers. struct [\\_T\\_CWORD33\\_CANMileageInfo](#)

CAN Diagnostic status data. [More...](#)

struct [\\_T\\_CWORD33\\_ScreenCaptureEvt](#)

Screen Capture Event data. struct [\\_SStatisticalCounter](#)

Statistical counter. [More...](#)

struct [\\_SEventLoggerCommonInfo](#)

Event logger common information. [More...](#)

struct [\\_SEventLoggerResetInfo](#)

Event logger resets counter information. [More...](#)

struct [\\_SEventLoggerEventInfo](#)

Event logger CWORD56 events information. [More...](#)

struct [\\_SEventCANLoggerEventInfo](#)

Event logger CAN events information. [More...](#)

class [LoggerServiceIf](#)

`logger_service` struct [\\_T\\_CWORD33\\_SetLoggerParams](#)

*Screen Capture Event data. [More...](#)*

struct [\\_T\\_CWORD33\\_SetLoggerAllParams](#)

struct [\\_TErrorLogger\\_FolderInfo](#)

union [\\_uEvtLoggerCommonInfo](#)

*Event logger resets counter information. [More...](#)*

struct [\\_stLogEventss](#)

*Logger Event information. [More...](#)*

struct [\\_T\\_CWORD33\\_EventLogPersistBuffer](#)

struct [\\_CWORD62\\_DateAndTime](#)

*CAN current date and time. [More...](#)*

## Macros

#define [SHMEM\\_DRLOCATIONLOG](#) "/DRLocationLog"

*Shared Memory names.*

#define [SHMEM\\_DRINITIALLOG](#) "/DRInitialLog"

*Shared Memory names.*

#define [MAX\\_EVT\\_RECORDS](#) 20000

*Macros definition for the Event Logs.*

#define [MAX\\_EVENTLOG\\_SIZE](#) 10\*[MAX\\_EVT\\_RECORDS](#)

*Max size for event logging.*

#define [NTFY\\_SS\\_LoggerService\\_Availability](#) SERVICE\_LOGGER"/Availability"

*Logger Service Availability Notification.*

## Typedefs

typedef struct [\\_TVINnumber](#) [STVIN\\_NUMBER](#)

*VIN numbers.*

typedef struct [\\_T\\_CWORD33\\_CANMileageInfo](#) [STLOGGER\\_CANDIAGSTAT](#)

*CAN Diagnostic status data.*

typedef enum [\\_ELoggerDeviceTypes](#) [EDEV\\_TYPE](#)

*Logger Device Type.*

typedef enum [\\_ELoggerState](#) [ELOGGER\\_STAT](#)

*Logger State.*

typedef struct [\\_T\\_CWORD33\\_ScreenCaptureEvt](#) [STScreenCaptureEvt](#)

*Screen Capture Event data.*

typedef enum [\\_EEventLoggerUSBDeviceNumber](#) [EEvtLogUSBDevNumber](#)

*USB source number to store event logs.*

typedef enum [\\_EDevNumber](#) [EDevNumber](#)

*USB source number to store emergency error logs.*

typedef enum [\\_ECounterGroupID](#) [EStatCounterGroupID](#)

*Counter group ID.*

typedef struct [\\_SStatisticalCounter](#) **SStatisticalCounter**  
*Statistical counter.*

typedef enum [\\_EEventLoggerErrorCode](#) **EEvtLoggerErrorCode**  
*Event Logger error code.*

typedef enum [\\_EEmergencyLogErrorCode](#) **EELL\_ErrorCode**  
*Emergency Log error code.*

typedef struct [\\_SEventLoggerCommonInfo](#) **SEventLoggerCommonInfo**  
*Event logger common information.*

typedef struct [\\_SEventLoggerResetInfo](#) **SEventLoggerResetInfo**  
*Event logger resets counter information.*

typedef struct [\\_SEventLoggerEventInfo](#) **SEventLoggerEventInfo**  
*Event logger CWORD56 events information.*

typedef struct [\\_SEventCANLoggerEventInfo](#) **SEventCANLoggerEventInfo**  
*Event logger CAN events information.*

typedef struct [\\_T\\_CWORD33\\_SetLoggerParams](#) **STLoggerSetParams**  
*Screen Capture Event data.*

typedef struct [\\_T\\_CWORD33\\_SetLoggerAllParams](#) **STLoggerSetAllParams**

typedef struct [\\_TErrorLogger\\_FolderInfo](#) **STLoggerFolderInfo**

typedef union [\\_uEvtLoggerCommonInfo](#) **UEvtLoggerCommonInfo**  
*Event logger resets counter information.*

typedef struct [\\_stLogEventss](#) **st\_LogEvent\_ss**  
*Logger Event information.*

typedef struct [\\_T\\_CWORD33\\_EventLogPersistBuffer](#) **SEventLogPersistBuffer**

typedef enum [\\_LoggerServiceProtocol](#) **SS\_LoggerServiceProtocol**  
*Logger service event IDs.*

typedef enum [\\_SS\\_LOGGERSERVICEPROTOCOL](#) **SS\_loggerserviceprotocol**  
*Logger service event IDs.*

typedef enum [\\_LoggerServerEvents](#) **SS\_LoggerServerEvents**  
*Private events for the following categories of devices.*

## Enumerations

enum [\\_ELoggerDeviceTypes](#) { **eDevUSB1**, **eDevUSB2**, **eDevSD**, **eEthernet**, **eTotalDevicesTypes**, **eInvalid\_DevType** } *Logger Device Type.*

enum [\\_ELoggerState](#) { **eDeactivate**, **eActivate**, **eInvalid\_LoggerState** } *Logger State.*

enum [\\_EEventLoggerUSBDeviceNumber](#) { **USB0** = \*\*\*, **USB1** = \*\*\*, **SD** = \*\*\* } *USB source number to store event logs.*

enum [\\_EDevNumber](#) { **eEEL\_USB1** = \*\*\*, **eEEL\_USB2** = \*\*\*, **eEEL\_SD** = \*\*\* } *USB source number to store emergency error logs.*

enum [\\_ECounterGroupID](#) { **STARTUP\_SHUTDOWN\_COUNTER\_GROUP** = \*\*\*, **\_CWORD105\_EVENTS\_COUNTER\_GROUP**, **APP\_USAGE\_COUNTER\_GROUP**, **F\_BLK\_STABILITY\_COUNTER\_GROUP**, **MAX\_COUNTER\_GROUP** } *Counter group ID.*



enum [EEventLoggerErrorCode](#) { **USB\_DEVICE\_NOT\_AVAILABLE** = \*\*\*,  
**USB\_DEVICE\_WRITE\_ERROR** = \*\*\*, **CLEAR\_EVENT\_LOG\_FAILED** = \*\*\*,  
**STATISTICAL\_COUNTER\_READ\_FAILED** = \*\*\*, **NO\_ERROR\_INFO** = \*\*\* }*Event Logger error code.*

enum [EEmergencyLogErrorCode](#) { **eDEVICE\_NOT\_AVAILABLE** = \*\*\*,  
**eDEVICE\_WRITE\_ERROR** = \*\*\*, **eNO\_ERROR\_INFO** = \*\*\* }*Emergency Log error code.*

enum [LoggerServiceProtocol](#) { **SS\_LOGGER\_MILEAGE\_DATA** = \*\*\*,  
**SS\_LOGGER\_SET\_PARAMS**, **SS\_LOGGER\_STORE\_SCREENCAPTURE\_AND\_LOG**,  
**SS\_LOGGER\_STORE\_SCREENCAPTURE**, **SS\_LOGGER\_STORE\_LOG**,  
**SS\_LOGGER\_SCREENCAPTURE\_EVT\_ACK**, **SS\_LOGGER\_EVENT\_COMMONINFO**,  
**SS\_LOGGER\_CWORD56\_EVENT\_INFO**, **SS\_LOGGER\_CWORD56\_RESET\_INFO**,  
**SS\_LOGGER\_SET\_DATETIME**, **SS\_LOGGER\_SET\_VIN**, **SS\_LOGGER\_UDP\_LOGGING**,  
**SS\_LOGGER\_ERROR\_EVENT\_ARTIFACT\_REQ**,  
**SS\_LOGGER\_ERROR\_EVENT\_ARTIFACT\_RESP**,  
**SS\_LOGGER\_CWORD105\_SHUTDOWN\_COMPLETE**,  
**SS\_LOGGER\_DIAGDTC\_ACTIVE**, **SS\_LOGGER\_SET\_DIAGID**,  
**SS\_LOGGER\_ERROR\_EVENT\_TIMER\_ID\_LOGGING\_START\_RSPN**,  
**SS\_LOGGER\_ERROR\_EVENT\_TIMER\_ID\_ARTIFACT\_RESPONSE**,  
**SS\_LOGGER\_ERROR\_EVENT\_TIMER\_ID\_SCREEN\_CAPTURE\_RSPN** }*Logger service event IDs.*

enum [SS\\_LOGGERSERVICEPROTOCOL](#) { **SS\_LOGGERCOPYEVENTUSB** = \*\*\*,  
**SS\_LOGGERCOPYEVENTUSB\_SUCCESS\_RESP**,  
**SS\_LOGGERCOPYEVENTUSB\_ERROR\_RESP**, **SS\_LOGGERCOPYEMERGENCYLOGS**,  
**SS\_LOGGERCOPYEMERGENCYLOGS\_SUCCESS\_RESP**,  
**SS\_LOGGERCOPYEMERGENCYLOGS\_ERROR\_RESP**, **SS\_LOGGERCLEAREVENT**,  
**SS\_LOGGERCLEAREVENT\_SUCCESS\_RESP**, **SS\_LOGGERCLEAREVENT\_ERROR\_RESP**,  
**SS\_LOGGER\_READ\_STATL\_COUNTER**,  
**SS\_LOGGER\_READ\_STATL\_COUNTER\_SUCCESS\_RESP**,  
**SS\_LOGGER\_READ\_STATL\_COUNTER\_ERROR\_RESP**,  
**SS\_LOGGER\_RESET\_STATL\_COUNTER**,  
**SS\_LOGGER\_RESET\_STATL\_COUNTER\_SUCCESS\_RESP**,  
**SS\_LOGGER\_RESET\_STATL\_COUNTER\_ERROR\_RESP**,  
**SS\_LOGGER\_ENG\_READ\_NUMOFEVENTS**,  
**SS\_LOGGER\_ENG\_READ\_NUMOFEVENTS\_RESP**,  
**SS\_LOGGER\_ENG\_READ\_STATISTICAL\_COUNTERS**,  
**SS\_LOGGER\_ENG\_READ\_STATISTICAL\_COUNTERS\_RESP**,  
**SS\_LOGGER\_UPLOAD\_EVENTLOG**, **SS\_LOGGER\_UPLOAD\_EVENTLOG\_RESP** }*Logger service event IDs.*

enum [LoggerServerEvents](#) { **SS\_LOGGER\_SCREENCAPTURE\_EVT** = \*\*\*,  
**SS\_LOGGER\_ERRORINFO\_EVT**, **SS\_LOGGER\_LOGINFORM\_EVT**,  
**SS\_LOGGER\_LOGSTARTED\_EVT** }*Private events for the following categories of devices.*

## Functions

E\_CWORD33\_Status [SS LoggerStoreLogs](#) (SS\_STORELOGS\_OPE\_TYPE type)  
*SSLoggerSrvIfWriteDebugLogs.*

---

## Detailed Description

---

## Class Documentation

### struct \_T\_CWORD33\_CANMileageInfo

CAN Diagnostic status data.

#### Class Members:

UI_8	DidA_ExtTest_Pres	
UI_8	EngRun_Stat	
UI_8	Odo_CWORD34_H	
UI_8	Odo_CWORD34_L	
UI_8	Odo_LSB_H	
UI_8	Odo_LSB_L	
UI_8	PN14_SupBat_Volt	

### struct \_SStatisticalCounter

Statistical counter.

#### Class Members:

UI_8	StatisticalCountBuffer[MAX_STATISTICAL_BUFFER]	Counter values for startup,normal and shutsown phases.
UI_16	u16NormalCounterLength	No of Counter from Normal phase.
UI_16	u16ShutDownCounterLength	No of Counter from Shut down phase.
UI_16	u16StartupCounterLength	No of Counter from startup phase.

### struct \_SEventLoggerCommonInfo

Event logger common information.

**Class Members:**

UI_8	BodyCAN_Stat:4	
UI_8	FOT_Temp:2	
UI_8	HeadUnitCAN_Stat:4	
UI_8	HMIInteraction:4	
UI_8	IGN_Status:4	
UI_8	Syst_CWORD61_oltage:6	

**struct \_SEventLoggerResetInfo**

Event logger resets counter information.

**Class Members:**

UI_8	_CWORD102_ResetInfo	
UI_8	_CWORD56_ResetInfo	

**struct \_SEventLoggerEventInfo**

Event logger CWORD56 events information.

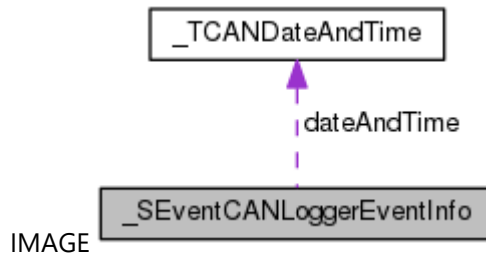
**Class Members:**

UI_8	EventData[4]	
UI_8	EventGroup	
UI_8	EventIdentifier	
UI_8	NumberOfEvents	

**struct \_SEventCANLoggerEventInfo**

Event logger CAN events information.

Collaboration diagram for \_SEventCANLoggerEventInfo:



**Class Members:**

<a href="#">STCanCurrentDateTime</a>	dateAndTime	
BOOL	success	
UI_32	triggerNumber	
BOOL	valid	

**struct \_T\_CWORD33\_SetLoggerParams**

Screen Capture Event data.

**Class Members:**

<a href="#">EDEV_TYPE</a>	Device_Type	
<a href="#">ELOGGER_STAT</a>	Logger_State	

**struct \_T\_CWORD33\_SetLoggerAllParams**

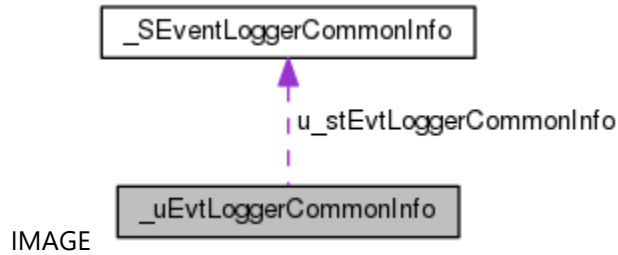
**Class Members:**

<a href="#">EDEV_TYPE</a>	Device_Type	
UI_32	Log_FolderCnt	
<a href="#">ELOGGER_STAT</a>	Logger_State	
<a href="#">ELOGGER_STAT</a>	Logger_UDPState	

**union \_uEvtLoggerCommonInfo**

Event logger resets counter information.

Collaboration diagram for \_uEvtLoggerCommonInfo:



**Class Members:**

UI_8	CommonData[4]	
<a href="#">STEventLoggerCommonInfo</a>	u_stEvtLoggerCommonInfo	

**struct \_stLogEventss\_**

Logger Event information.

**Class Members:**

UI_8	data[4]	
UI_8	event_id	
UI_8	grp_ID	
UI_32	ts	

**struct \_CWORD62\_DateAndTime**

CAN current date and time.

CAN current date and time

**Class Members:**

UI_8	DateTime_Stat	Date time status
UI_8	DateTimeDay	Date
UI_8	DateTimeHour	Hour
UI_8	DateTimeMinute	Minute
UI_8	DateTimeMonth	Month
UI_8	DateTimeSecond	Second
UI_8	DateTimeYear	Year
UI_8	TimeFormat	Format

---

**Function Documentation****E\_CWORD33\_Status SS\_LoggerStoreLogs (SS\_STORELOGS\_OPE\_TYPE *type*)**

SSLoggerSrvIfWriteDebugLogs.

**Returns:**

Status E\_CWORD33\_Status - success or error

**Power\_service**

struct [\\_upinfo](#)  
struct [\\_wakeinfo](#)  
struct [\\_SystemModelInfo](#)  
struct [StartupConfirmationMsgStrut](#)  
struct [PowerRequestMsgStrut](#)  
struct [PowerRequestMsgStrutWithUMCR](#)  
struct [ShutdownRequestMsgStrut](#)  
struct [EPWR\\_HB\\_REQ\\_MSG\\_STRUCT](#)  
struct [SS\\_Pwr\\_CpuResetMsgStruct](#)  
struct [Pwr\\_ServiceSetInterface](#)

## Macros

```
#define szNTFY\_PowerAvailability SERVICE_POWER"/Availability"
```

*Indicated if Power Service is available or not portion of this message is BOOL.*

## Typedefs

```
typedef enum _PwLevelTypes PowerSrvLevelType
typedef enum _PwLevelTypes EPWR_LEVEL_TYPE
typedef enum PowerSrvSessionType EPWR_SESSION_TYPE
typedef enum ePowerSrvCANStates EPWR_CAN_STATE_TYPE
typedef enum ePowerSrvWakeupLevels EPWR_WAKEUP_LEVEL_TYPE
typedef EPWR_WAKEUP_LEVEL_TYPE * PEPWR_WAKEUP_LEVEL_TYPE
typedef enum ePowerSrvPowerStates EPWR_POWER_STATE_TYPE
typedef enum ePowerSrvVoltageStates EPWR_VOLTAGE_STATE_TYPE
typedef EPWR_VOLTAGE_STATE_TYPE * PEPWR_VOLTAGE_STATE_TYPE
typedef enum ePowerSrvCrankStates EPWR_CRANK_STATE_TYPE
typedef enum ePowerSrvWakeupFactors EPWR_WAKEUP_FACTOR_TYPE
typedef EPWR_WAKEUP_FACTOR_TYPE * PEPWR_WAKEUP_FACTOR_TYPE
typedef enum ePwrServiceShutdownPopupType EPWR_SHUTDOWN_POPUP_TYPE
typedef enum ePwrServicePowerPopupType EPWR_POWER_POPUP_TYPE
typedef enum ePwrServiceLHCType EPWR_LHC_TYPE
typedef enum ePwrServiceProdModeType EPWR_PROD_MODE_TYPE
typedef enum ePwrServiceTransportModeType EPWR_TRANSPORT_MODE_TYPE
typedef enum ePwrServiceUserModeType EPWR_USER_MODE_TYPE
typedef enum ePwrServiceUserModeChangeReasonType
EPWR_USER_MODE_CHANGE_REASON_TYPE
typedef struct \_upinfo upInfo
typedef struct \_wakeinfo wakeInfo
typedef enum ePowerSrvSystemModelInfo EPWR_SYSTEM_MODE_INFO
typedef enum ePowerSrvStartupStageType EPWR_STARTUP_STAGE_TYPE
typedef struct \_SystemModelInfo SystemModelInfo
typedef struct StartupConfirmationMsgStrut EPWR_SC_MSG_STRUCT
typedef enum ePowerSrv\_CWORD102\_StartupInfoType
EPWR_CWORD102_STARTUP_INFO_TYPE
typedef enum ePowerSrvPwrReqMsgCIDIOpeningType EPWR_OPENING_TYPE
typedef enum ePowerSrvPwrManResetInfoType EPWR_MAN_RESET_INFO_TYPE
typedef enum ePowerSrvTypeLastSysRetReq EPWR_LAST_SYS_RET_REQ_TYPE
typedef struct PowerRequestMsgStrut EPWR_POWER_REQUEST_MSG_STRUCT
typedef struct PowerRequestMsgStrutWithUMCR
EPWR_POWER_REQUEST_MSG_STRUCT_WITH_UMCR
typedef enum ePowerSrvONSType EPWR_ONS_TYPE
typedef enum ePowerSrvPwrShutdownTriggerType EPWR_SHUTDOWN_TRIGGER_TYPE
typedef struct ShutdownRequestMsgStrut EPWR_SHUTDOWN_REQUEST_MSG_STRUCT
```

## Enumerations

```
enum _PwLevelTypes { epspltUNKNOWN, epspltWAKEUP = ***, epspltNORMAL,
epspltSHUTDOWN, epspltEMERGENCY }
```

```

enum PowerSrvSessionType { epsstUNKNOWN, epsstBASIC, epsstSUPERVISOR,
    epsstSYSTEM }
enum ePowerSrvCANStates { epscnINVALID = ***, epscnCANWAKEUP = ***, epscnCANSLEEP
    = ***)
enum ePowerSrvWakeupLevels { epswlINVALID = ***, epswlFULLRUN = ***,
    epswlLOCALWAKEUP = ***)
enum ePowerSrvPowerStates { epswsINVALID = ***, epswsPWRON = ***, epswsPWROFF =
    ***)
enum ePowerSrvVoltageStates { epsvsINVALID = ***, epsvsNORMAL = ***, epsvsLVI1 = ***,
    epsvsLVI2 = ***)
enum ePowerSrvCrankStates { epscsINVALID = ***, epscsENTRY = ***, epscsEXIT = ***)
enum ePowerSrvWakeupFactors { epswfINVALID = ***, epswfTESTACC = ***, epswfON_KEY =
    ***, epswflGN_ACC = ***, epswfdR_OPEN_CLOSE = ***, epswfdX_ACTIVATION = ***,
    epswfETHERNET = ***, epswfpASS_ACTIVATION = ***, epswfsPVACTIVATION = ***,
    epswfUSER_DATA_RESET = ***)
enum ePwrServiceShutdownPopupType { epsspPowerSave1 = ***, epsspPowerSave2 = ***,
    epsspPowerSave3 = ***, epsspPowerSaveClr = ***, epsspLowVoltage1 = ***,
    epsspLowVoltage2 = ***, epsspLowVoltage3 = ***, epsspLowVoltageClr = ***,
    epsspBattCouplingSW1 = ***, epsspBattCouplingSW2 = ***, epsspBattCouplingSW3 =
    ***, epsspBattCouplingSWClr = ***, epsspAbnormalTemp_1st = ***,
    epsspAbnormalTemp_Clr = ***, epsspLimpHome_1st = ***, epsspLimpHome_2nd = ***,
    epsspLimpHome_3rd = ***, epsspLimpHome_Clr = ***, epsspProdMd_1st = ***,
    epsspProdMd_Clr = ***, epsspTransMd_1st = ***, epsspTransMd_Clr = ***, epsspAllClr =
    ***)
enum ePwrServicePowerPopupType { epssppNormal = ***, epssppCritical = ***,
    epssppAppCritical = ***, epssppAllClr = ***)
enum ePwrServiceLHCTYPE { epslhcINVALID = ***, epslhcDISABLED = ***, epslhcENABLED =
    ***)
enum ePwrServiceProdModeType { epspmINVALID = ***, epspmDISABLED = ***,
    epspmENABLED = ***)
enum ePwrServiceTransportModeType { epstmINVALID = ***, epstmDISABLED = ***,
    epstmENABLED = ***)
enum ePwrServiceUserModeType { epsumINVALID = ***, epsumOFF = ***, epsumON = ***)
enum ePwrServiceUserModeChangeReasonType { epsumcrNOT_AVAILABLE = ***,
    epsumcrON_KEY = ***, epsumcrPARKING_B, epsumcrPRE_BA, epsumcrNORMAL,
    epsumcrBACKGROUND_BA }
enum ePowerSrvSystemModelInfo { epssinfINVALID = ***, epssinfNORMAL = ***,
    epssinfPROGRAMMING = ***)
enum ePowerSrvStartupStageType { epssusfINVALID = ***,
    epssusfSYSTEM_SERVICES_STARTED = ***, epssusfALL_SERVICES_LAUNCHED = ***)
enum EPWR_SC_CWORD56_BOOT_MODE_TYPE { eps_CWORD56_bmINVALID = ***,
    eps_CWORD56_bmAPPLICATION_MODE = ***,
    eps_CWORD56_bmPROGRAMMING_MODE = ***)
enum EPWR_SC_WAKEUP_TYPE { epsstINVALID = ***, epsstWARMSTART = ***,
    epsstCOLDSTART = ***)
enum EPWR_SC_COLD_START_REQ_TYPE { epsscrtINVALID = ***, epsscrtNOT_REQUIRED =
    ***, epsscrtREQUIRED = ***)

```

```

enum EPWR_SC_SECURITY_STATUS { epsssINVALID = ***, epsssUNLOCK = ***, epsssLOCK =
    *** }
enum ePowerSrv_CWORD102_StartupInfoType { epsprm_CWORD102_siINVALID = ***,
    epsprm_CWORD102_si_CWORD102_STARTUP_NORMAL = ***,
    epsprm_CWORD102_si_CWORD102_STARTUP_AFTER_RESET = *** }
enum ePowerSrvPwrReqMsgCIDIOpeningType { epsprmotINVALID = ***,
    epsprmotTIMING_TYPE_1 = ***, epsprmotTIMING_TYPE_2 = *** }
enum ePowerSrvPwrManResetInfoType { epsprmriINVALID = ***, epsprmriNORMAL = ***,
    epsprmriWAKEUP_AFTER_RESET = *** }
enum ePowerSrvTypeLastSysRetReq { epsprlsrrINVALID = ***, epsprlsrrLAST_SYSTEM_OFF =
    ***, epsprlsrrLAST_SYSTEM_ON = *** }
enum ePowerSrvONSType { epssdmonsINVALID = ***, epssdmonsNO_ONS = ***,
    epssdmonsONS = *** }
enum ePowerSrvPwrShutdownTriggerType { epssdmsdtINVALID = ***,
    epssdmsdtTESTACC_OFF = ***, epssdmsdtON_KEY = ***, epssdmsdtIGN_LOCK = ***,
    epssdmsdtPWR_SAVE = ***, epssdmsdtTMP_STARTUP = ***,
    epssdmsdtDIAG_DEACTIVATION = ***, epssdmsdtABNORMAL_VOLTAGE = ***,
    epssdmsdtABNORMAL_TEMP = ***, epssdmsdtBATTERYCUTOFF = ***,
    epssdmsdtLIMPHOME = ***, epssdmsdtHU_CAN_ERROR = ***,
    epssdmsdtBODY_CAN_ERROR = ***, epssdmsdtTRANSPORT_MODE = ***,
    epssdmsdtPRODUCTION_MODE = ***, epssdmsdtIGN_OFF = ***,
    epssdmsdtGENERIC_ERROR_RESET = ***, epssdmsdtFATAL_ERROR_RESET = ***,
    epssdmsdtUSER_DATA_RESET = ***, epssdmsdtFACTORY_DATA_RESET = ***,
    epssdmsdtFAST_SLEEP_MODE = ***, epssdmsdtNORMAL_RESET = ***,
    epssdmsdtPROGUPDATE_RESET = *** }
enum epsCpuResetReason { epsCpuResetReasonGeneric = ***, epsCpuResetReasonFatalError,
    epsCpuResetReasonUserDataReset, epsCpuResetReasonFactoryDataReset,
    epsCpuResetReasonUserForceReset, epsCpuResetReasonShipmentModeReset,
    epsCpuResetReasonHeadUnitReset, epsCpuResetReasonNormalReset,
    epsCpuResetReasonProgupdateReset }

```

## Functions

```

HANDLE OpenPowerService (HANDLE f_hApp)
E_CWORD33_Status ClosePowerService (HANDLE f_hApp, HANDLE f_hService)
E_CWORD33_Status PwrServiceOpenSessionRequest (HANDLE f_hService, EPWR_SESSION_TYPE
    f_eSessionType)
E_CWORD33_Status PwrServiceCloseSessionRequest (HANDLE f_hService, HANDLE f_hSession)
E_CWORD33_Status PwrServiceDecodeOpenSessionResponse (HANDLE f_hApp, HANDLE
    &f_hSession)
E_CWORD33_Status PwrServiceSetVoltageState (HANDLE f_hSession,
    EPWR_VOLTAGE_STATE_TYPE f_eVoltage_state)
E_CWORD33_Status PwrServiceSetCrankState (HANDLE f_hSession, EPWR_CRANK_STATE_TYPE
    f_eCrank_state)
E_CWORD33_Status PwrServiceSystemModelInfoRequest (HANDLE f_hSession)
E_CWORD33_Status PwrServiceSendInitCompReport (HANDLE f_hSession)
E_CWORD33_Status PwrServiceSendSetShutdownPopupRequest (HANDLE f_hSession,
    EPWR_SHUTDOWN_POPUP_TYPE f_eShutdownPopup)

```



E\_CWORD33\_Status [PwrServiceSendStartupConfirmationMsgRequest](#) (HANDLE f\_hSession, [EPWR\\_SC\\_MSG\\_STRUCT](#) f\_eState)  
 E\_CWORD33\_Status [PwrServiceSendPowerRequest](#) (HANDLE f\_hSession, [EPWR\\_POWER\\_REQUEST\\_MSG\\_STRUCT\\_WITH\\_UMCR](#) &f\_eState)  
 E\_CWORD33\_Status [PwrServiceSendShutdownRequest](#) (HANDLE f\_hSession, [EPWR\\_SHUTDOWN\\_REQUEST\\_MSG\\_STRUCT](#) &f\_eState)  
 E\_CWORD33\_Status [PwrServiceSendHeartBeatRequest](#) (HANDLE f\_hSession, [EPWR\\_HB\\_REQ\\_MSG\\_STRUCT](#) \*f\_eHbReqMsg)

## Detailed Description

## Class Documentation

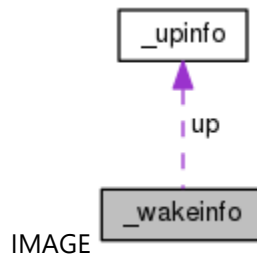
### struct \_upinfo

#### Class Members:

EPWR_WAKEUP_FACTOR_TYPE	factor		
EPWR_WAKEUP_LEVEL_TYPE	level		
EPWR_USER_MODE_CHANGE_REASON_TYPE	userModeChangeReason	State reason.	transition

### struct \_wakeinfo

Collaboration diagram for \_wakeinfo:



#### Class Members:

EPWR_POWER_STATE_TYPE	powerupType	
<a href="#">upInfo</a>	up	

### struct \_SystemModelInfo

#### Class Members:

EPWR_USER_MODE_TYPE	lastUserMode	
EPWR_LHC_TYPE	limpHomeCutoff	

EPWR_PROD_MODE_TYPE	productionMode	
EPWR_STARTUP_STAGE_TYPE	startupStage	
EPWR_SYSTEM_MODE_INFO	systemMode	
EPWR_TRANSPORT_MODE_TYPE	transportMode	

### struct StartupConfirmationMsgStrut

#### Class Members:

EPWR_SC_CWORD56_BOOT_MODE_TYPE	_CWORD56_BootMode	
EPWR_SC_COLD_START_REQ_TYPE	coldStartRequest	
UI_32	HWVersion	
UI_32	imageType	
UI_32	majorVersion	
UI_32	matchedHardwareType	
UI_32	minorVersion	
EPWR_SC_SECURITY_STATUS	securityStatus	
UI_32	softwareType	
UI_32	SWVersionPatchLevel	
UI_32	SWVersionWeek	
UI_32	SWVersionYear	
EPWR_SC_WAKEUP_TYPE	wakeupType	

### struct PowerRequestMsgStrut

#### Class Members:

EPWR_LAST_SYS_RET_REQ_TYPE	lastSystemRetentionReq	
EPWR_USER_MODE_TYPE	lastUserMode	
EPWR_MAN_RESET_INFO_TYPE	manResetInfo	
EPWR_OPENING_TYPE	openingType	
EPWR_WAKEUP_FACTOR_TYPE	startupReason	
EPWR_CWORD102_STARTUP_INFO_TYPE	startupType	
EPWR_USER_MODE_TYPE	userMode	

### struct PowerRequestMsgStrutWithUMCR

structure for power request message

#### Class Members:

EPWR_LAST_SYS_RET_REQ_TYPE	lastSystemRetentionReq	
EPWR_USER_MODE_TYPE	lastUserMode	
EPWR_MAN_RESET_INFO_TYPE	manResetInfo	
EPWR_OPENING_TYPE	openingType	
EPWR_WAKEUP_FACTOR_TYPE	startupReason	
EPWR_CWORD102_STARTUP_INFO_TYPE	startupType	
EPWR_USER_MODE_TYPE	userMode	

EPWR_USER_MODE_CHANGE_REASON_TYPE	userModeChangeReason	State reason.	transition
-----------------------------------	----------------------	------------------	------------

**struct ShutdownRequestMsgStrut**

**Class Members:**

EPWR_USER_MODE_TYPE	lastUserMode	
EPWR_LHC_TYPE	limpHomeCutoffRequest	
EPWR_ONS_TYPE	ONS_Type	
EPWR_PROD_MODE_TYPE	productionMode	
EPWR_SHUTDOWN_TRIGGER_TYPE	shutdownTrigger	
EPWR_TRANSPORT_MODE_TYPE	transportMode	

**struct EPWR\_HB\_REQ\_MSG\_STRUCT**

**Class Members:**

UI_8	IntervalSec	
------	-------------	--

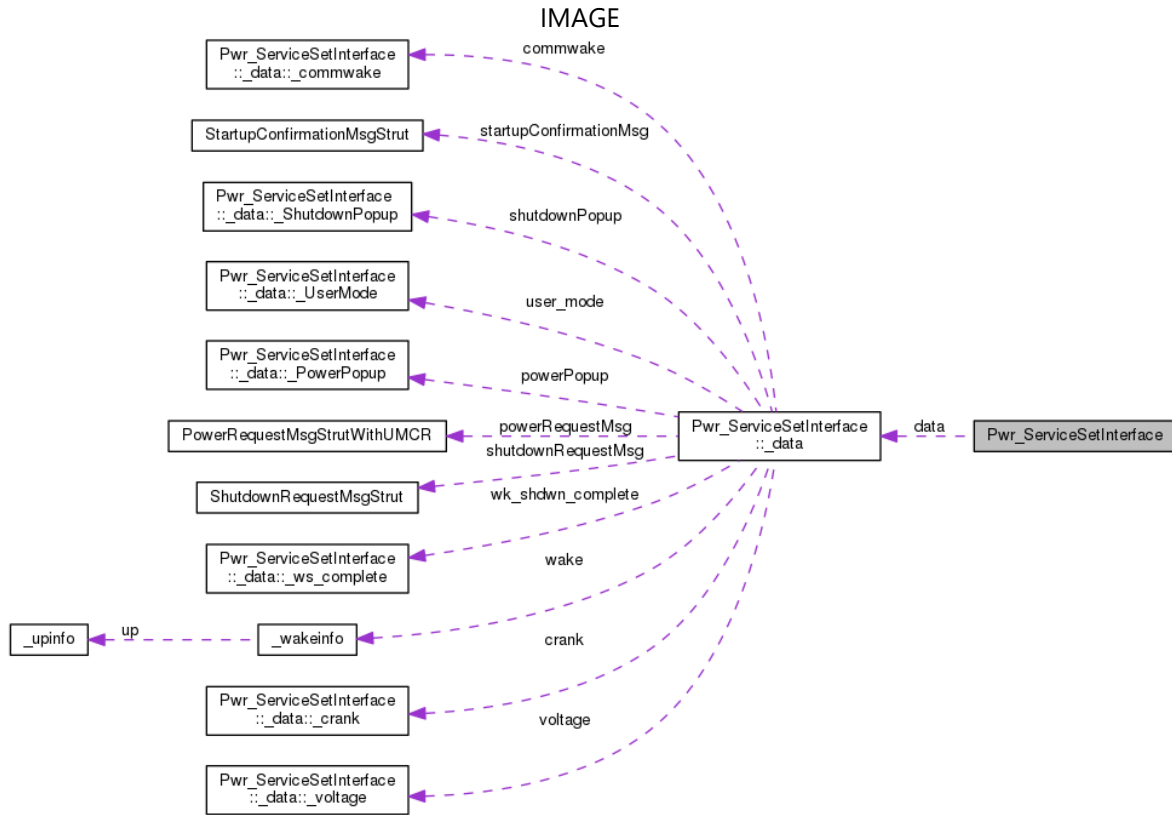
**struct SS\_Pwr\_CpuResetMsgStruct**

**Class Members:**

CHAR	messageStr[PWR_RESET_MSG_STR_SIZE]	
epsCpuResetReason	resetReason	

**struct Pwr\_ServiceSetInterface**

Collaboration diagram for Pwr\_ServiceSetInterface:



**Class Members:**

union <a href="#">data</a>	data
----------------------------	------

**Enumeration Type Documentation**

**enum [ePowerSrv\\_CWORD102\\_StartupInfoType](#)**

*CWORD102* Startup Information

**Enumerator**

***epsprm\_CWORD102\_si\_CWORD102\_STARTUP\_NORMAL*** Normal Startup.

***epsprm\_CWORD102\_si\_CWORD102\_STARTUP\_AFTER\_RESET*** Startup after Irregular Reset.

**enum [ePowerSrvPwrManResetInfoType](#)**

Manual Reset Information

**enum [ePowerSrvPwrReqMsgCIDIOpeningType](#)**

Opening Type

**Enumerator**

***epsprmotTIMING\_TYPE\_1*** CI/DI Show timing type1.

***epsprmotTIMING\_TYPE\_2*** CI/DI Show timing type2.

**enum [ePowerSrvTypeLastSysRetReq](#)**

Last System Retention Request

**enum [ePwrServiceUserModeChangeReasonType](#)**

State transition reason.

**Enumerator**

***epsumcrNOT\_AVAILABLE*** Not available.

***epsumcrPARKING\_B*** Parking(+B) Power state transition.

***epsumcrPRE\_BA*** Pre-boot(+BA) Power state transition.

***epsumcrNORMAL*** Normal-boot Power state transition.

***epsumcrBACKGROUND\_BA*** Background-boot(+BA) Power state transition.

---

**Function Documentation**

**E\_CWORD33\_Status ClosePowerService (HANDLE *f\_hApp*, HANDLE *f\_hService*)**

**Summary**

Free a handle for using PowerService.

**Parameters:**

in	<i>f_hApp</i>	HANDLE - Application handle
in	<i>f_hService</i>	HANDLE - PowerService handle

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvlHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Sync only

**See also:**

None

**HANDLE OpenPowerService (HANDLE *f\_hApp*)****Summary**

Obtain a handle for using the PowerService.

**Parameters:**

in	<i>f_hApp</i>	HANDLE - Application handle
----	---------------	-----------------------------

**Return values:**

<i>Handle</i>	Success
<i>NULL</i>	Failed

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

**E\_CWORD33\_Status PwrServiceCloseSessionRequest (HANDLE *f\_hService*, HANDLE *f\_hSession*)****Summary**

End using the PowerService.

**Parameters:**

in	<i>f_hService</i>	HANDLE - PowerService handle
in	<i>f_hSession</i>	HANDLE - Session type

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Fire and Forget Method

**See also:**

None

**E\_CWORD33\_Status PwrServiceDecodeOpenSessionResponse (HANDLE *f\_hApp*, HANDLE & *f\_hSession*)****Summary**

Obtain a handle for OpenSessionRequest response message.

**Parameters:**

in	<i>f_hApp</i>	HANDLE - Application handle
in	<i>f_hSession</i>	HANDLE& - Address of storing session handle

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	NULL Pointer

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

**E\_CWORD33\_Status PwrServiceOpenSessionRequest (HANDLE *f\_hService*, EPWR\_SESSION\_TYPE *f\_eSessionType*)****Summary**

Make the PowerService available.

**Parameters:**

in	<i>f_hService</i>	HANDLE - PowerService handle
in	<i>f_eSessionType</i>	EPWR_SESSION_TYPE - Session type

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Fire and Forget Method

**See also:**

None

**E\_CWORD33\_Status PwrServiceSendHeartBeatRequest (HANDLE *f\_hSession*,  
[EPWR\\_HB\\_REQ\\_MSG\\_STRUCT](#) \* *f\_eHbReqMsg*)****Summary**

Send a request for HeartBeat monitoring start.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eHbReqMsg</i>	EPWR_HB_REQ_MSG_STRUCT* 2 Address of the structure for HeartBeat monitoring start request message

Structure for HeartBeat monitoring start request message

```

1 typedef struct {
2   UI_8 IntervalSec;
3 } EPWR_HB_REQ_MSG_STRUCT;

```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Method x Method

**See also:**

None

**E\_CWORD33\_Status PwrServiceSendInitCompReport (HANDLE *f\_hSession*)****Summary**

Send an initialize complete response.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
----	-------------------	-------------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
---------------------------	---------



<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Fire and Forgeat Fire and Forget

**See also:**

None

**E\_CWORD33\_Status PwrServiceSendPowerRequest (HANDLE *f\_hSession*, [EPWR POWER REQUEST MSG STRUCT WITH UMCR](#) & *f\_eState*)**

**Brief**

Send power request.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eState</i>	<a href="#">EPWR POWER REQUEST MSG STRUCT WITH UMCR</a> - Address of the structure for power request message

Of the eight elements of the [EPWR POWER REQUEST MSG STRUCT WITH UMCR](#) structure, five elements set fixed values.

startupType = [epsprm\\_CWORD102\\_si\\_CWORD102\\_STARTUP\\_NORMAL](#)

openingType = [epsprmotTIMING\\_TYPE\\_1](#)

lastUserMode = epsumON

manResetInfo = epsprmriNORMAL

lastSystemRetentionReq = epsprlsrrLAST\_SYSTEM\_OFF

For the following, set different values at system startup and shutdown.

(Element name) = (Startup settings or Shutdown settings)

startupReason = (epswfIGN\_ACC or epswfINVALID)

userMode = (epsumON or epsumOFF)

For the following, set different values at power state transition.

Element name	Power state	Value
userModeChangeReason		
Not Available		<a href="#">epsumcrNOT_AVAILABLE</a>
		epsumcrON_KEY
Parking(+B)		<a href="#">epsumcrPARKING_B</a>
Pre-boot(+BA)		<a href="#">epsumcrPRE_BA</a>
Normal-boot		<a href="#">epsumcrNORMAL</a>
Background-boot(+BA)		<a href="#">epsumcrBACKGROUND_BA</a>

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Prerequisite**

None

**Change of internal state**

None

**Classification**

Public

**Type**

Method only

**See also:**

None

**E\_CWORD33\_Status PwrServiceSendSetShutdownPopupRequest (HANDLE *f\_hSession*, EPWR\_SHUTDOWN\_POPUP\_TYPE *f\_eShutdownPopup*)**

**Summary**

Obtain shutdown state.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eShutdownPopup</i>	EPWR_SHUTDOWN_POPUP_TYPE - Shutdown state

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Method only

**See also:**

None

**E\_CWORD33 Status PwrServiceSendShutdownRequest (HANDLE *f\_hSession*,  
EPWR\_SHUTDOWN\_REQUEST\_MSG\_STRUCT & *f\_eState*)**

**Summary**

Send shutdown request.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eState</i>	EPWR_SHUTDOWN_REQUEST_MSG_STRUCT& 3 Address of the structure for shutdown request message

Structure for shutdown request message

```

1 typedef struct {
2   EPWR_ONS_TYPE          ONS_Type;
3   EPWR_SHUTDOWN_TRIGGER_TYPE shutdownTrigger;
4   EPWR_USER_MODE_TYPE   lastUserMode;
5   EPWR_TRANSPORT_MODE_TYPE transportMode;
6   EPWR_PROD_MODE_TYPE   productionMode;
7   EPWR_LHC_TYPE         limpHomeCutoffRequest;
8 } ShutdownRequestMsgStrut, EPWR_SHUTDOWN_REQUEST_MSG_STRUCT

```

EPWR\_ONS\_TYPE

Name	Value
epssdmonsINVALID	0xFF
epssdmonsNO_ONS	0x00
epssdmonsONS	0x01

EPWR\_SHUTDOWN\_TRIGGER\_TYPE

Name	Value
epssdmsdtINVALID	0xFF
epssdmsdtTESTACC_OFF	0x00
epssdmsdtON_KEY	0x01
epssdmsdtIGN_LOCK	0x02
epssdmsdtPWR_SAVE	0x03
epssdmsdtTMP_STARTUP	0x04
epssdmsdtDIAG_DEACTIVATION	0x05
epssdmsdtABNORMAL_VOLTAGE	0x06
epssdmsdtABNORMAL_TEMP	0x07
epssdmsdtBATTERYCUTOFF	0x08
epssdmsdtLIMPHOME	0x09

epssdmsdtHU_CAN_ERROR	0x0A
epssdmsdtBODY_CAN_ERROR	0x0B
epssdmsdtTRANSPORT_MODE	0x0C
epssdmsdtPRODUCTION_MODE	0x0D
epssdmsdtIGN_OFF	0x0E
epssdmsdtGENERIC_ERROR_RESET	0x0F
epssdmsdtFATAL_ERROR_RESET	0x10
epssdmsdtUSER_DATA_RESET	0x11
epssdmsdtFACTORY_DATA_RESET	0x12
epssdmsdtFAST_SLEEP_MODE	0x13
epssdmsdtNORMAL_RESET	0x14
epssdmsdtPROGUPDATE_RESET	0x15

EPWR\_USER\_MODE\_TYPE

Name	Value
epsumINVALID	0xFF
epsumOFF	0x00
epsumON	0x01

EPWR\_TRANSPORT\_MODE\_TYPE

Name	Value
epstmINVALID	0xFF
epstmDISABLED	0x00
epstmENABLED	0x01

EPWR\_PROD\_MODE\_TYPE

Name	Value
epspmINVALID	0xFF
epspmDISABLED	0x00
epspmENABLED	0x01

EPWR\_LHC\_TYPE

Name	Value
epslhcinVALID	0xFF
epslhcdISABLED	0x00
epslhceENABLED	0x01

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Method x Method

**See also:**

None

**E\_CWORD33\_Status PwrServiceSendStartupConfirmationMsgRequest (HANDLE *f\_hSession*, EPWR\_SC\_MSG\_STRUCT *f\_eState*)****Summary**

Send startup confirmation request.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eState</i>	EPWR_SC_MSG_STRUCT 4 Address of the structure for startup confirmation request message

## Structure for startup confirmation request message

```

1 typedef struct {
2   EPWR_SC_CWORD56_BOOT_MODE_TYPE_CWORD56_BootMode;
3   EPWR_SC_WAKEUP_TYPE      wakeupType;
4   EPWR_SC_COLD_START_REQ_TYPE coldStartRequest;
5   EPWR_SC_SECURITY_STATUS  securityStatus;
6   UI_32                    HWVersion;
7   UI_32                    matchedHardwareType;
8   UI_32                    softwareType;
9   UI_32                    imageType;
10  UI_32                    majorVersion;
11  UI_32                    minorVersion;
12  UI_32                    SWVersionYear;
13  UI_32                    SWVersionWeek;
14  UI_32                    SWVersionPatchLevel;
15 } StartupConfirmationMsgStrut, EPWR_SC_MSG_STRUCT;

```

## EPWR\_SC\_CWORD56\_BOOT\_MODE\_TYPE

Name	Value
eps_CWORD56_bmINVALID	0xFF
eps_CWORD56_bmAPPLICATION_MODE	0x00

eps_CWORD56_bmPROGRAMMING_MODE	0x08
--------------------------------	------

#### EPWR\_SC\_WAKEUP\_TYPE

Name	Value
epsstINVALID	0xFF
epsstWARMSTART	0x00
epsstCOLDSTART	0x01

#### EPWR\_SC\_COLD\_START\_REQ\_TYPE

Name	Value
epssctINVALID	0xFF
epssctNOT_REQUIRED	0x00
epssctREQUIRED	0x01

#### EPWR\_SC\_SECURITY\_STATUS

Name	Value
epsssINVALID	0xFF
epsssUNLOCK	0x00
epsssLOCK	0x01

#### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

#### Classification

Public

#### Type

Fire and Forget Fire and Forget

#### See also:

None

**E\_CWORD33\_Status PwrServiceSetCrankState (HANDLE *f\_hSession*, EPWR\_CRANK\_STATE\_TYPE *f\_eCrank\_state*)**

**Summary**

Set crank state.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eCrank_state</i>	EPWR_CRANK_STATE_TYPE - Crank state value

Crank state value

Name	Value
epscsINVALID	0xFF
epscsENTRY	0xA0
epscsEXIT	0xA2

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Fire and Forget only

**See also:**

None

**E\_CWORD33\_Status PwrServiceSetVoltageState (HANDLE *f\_hSession*, EPWR\_VOLTAGE\_STATE\_TYPE *f\_eVoltage\_state*)**

**Summary**

Set power supply state.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
in	<i>f_eVoltage_state</i>	EPWR_VOLTAGE_STATE_TYPE - Power supply status value

Power supply status value

Name	Value
------	-------

epsvsINVALID	0xFF
epsvsNORMAL	0x20
epsvsLV11	0x22
epsvsLV12	0x24

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Method only

**See also:**

None

**E\_CWORD33\_Status PwrServiceSystemModelInfoRequest (HANDLE *f\_hSession*)**

**Summary**

Request to obtain the system mode information.

**Parameters:**

in	<i>f_hSession</i>	HANDLE - Session handle
----	-------------------	-------------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Failed

**Classification**

Public

**Type**

Method Method

**See also:**

None

**Version\_library**

struct [SSVER\\_PkgInfo](#)

*The structure of version package information. [More...](#)*

class [CSSVer](#)



### Version information set-up/acquisition. Macros

```
#define SSVER_VERCHAR_MAX (64)  
#define SSVER_DATE_MAX (16)
```

### Typedefs

```
typedef std::map< std::string, SSVER\_PkgInfo > SSVerPkgList  
typedef SSVerPkgList::const_iterator SSVerPkgListIter
```

### Functions

```
CSSVer::CSSVer ()  
CSSVer::~~CSSVer ()  
SSVerPkgListIter CSSVer::begin ()  
SSVerPkgListIter CSSVer::end ()  
bool CSSVer::empty ()  
E_CWORD78_Status CSSVer::getPkgInfo (const std::string &name, SSVER\_PkgInfo *p_info)  
E_CWORD78_Status CSSVer::setPkgInfo (const std::string &name, SSVER\_PkgInfo &info)
```

### Variables

```
char SSVER\_PkgInfo::version [SSVER_VERCHAR_MAX]  
char SSVER\_PkgInfo::date [SSVER_DATE_MAX]
```

---

## Detailed Description

---

### Class Documentation

#### struct **SSVER\_PkgInfo**

The structure of version package information.

#### Class Members:

char	date[SSVER_DATE_MAX]	Date (String):The termination of string must be "\0" Date (String):Store "\0" when date information does not exist.
char	version[SSVER_VERCHAR_MAX]	Version information (String): The termination of string must be "\0"

---

## Function Documentation

### SSVerPkgListIter CSSVer::begin ()[inline]

#### Summary

Returns the first iterator of package list.

#### Parameters:

None	
------	--

#### Return values:

SSVerPkgListIter	The first iterator of package list
------------------	------------------------------------

The structure of version package information

```
#define SSVER_VERCHAR_MAX  (64)
#define SSVER_DATE_MAX    (16)
typedef struct{
    char version[SSVER_VERCHAR_MAX]; /* Version information (String): The termination of
    *                               string must be "\0" */
    char date[SSVER_DATE_MAX];      /* Date (String): The termination of string must be "\0"*/
    /* Store "\0" when date information does not exist. */
}SSVER_PkgInfo;

typedef std::map<std::string, SSVER_PkgInfo> SSVerPkgList; /* Package list definition */
typedef SSVerPkgList::const_iterator SSVerPkgListIter; /* Iterator definition of package list */
```

#### Preconditions

None

#### Changes of the internal state

The internal state is not changed.

#### Classification

Public

#### Type

Sync only(None communication)

#### See also:

[end](#)

### CSSVer::CSSVer ()

#### Summary

Constructor for [CSSVer](#) class

#### Parameters:

None	
------	--

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

None

**Changes of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**

[~CSSVer](#)

**bool CSSVer::empty ()[inline]****Summary**

Checks whether data exists in package list or not.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>bool</i>	The possibility of data existence of package list
-------------	---

true : Data does not exist

false : Data exists

**Preconditions**

None

**Changes of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

None

## SSVerPkgListIter CSSVer::end ()[inline]

### Summary

Returns the end iterator of package list.

### Parameters:

None	
------	--

### Return values:

SSVerPkgListIter	The end iterator of package list
------------------	----------------------------------

The structure of version package information

```
#define SSVER_VERCHAR_MAX (64)
#define SSVER_DATE_MAX (16)
typedef struct{
    char version[SSVER_VERCHAR_MAX]; /* Version information (String): The termination of
    * string must be "\0" */
    char date[SSVER_DATE_MAX]; /* Date (String): The termination of string must be "\0" */
    /* Store "\0" when date information does not exist. */
}SSVER_PkgInfo;

typedef std::map<std::string, SSVER_PkgInfo> SSVerPkgList; /* Package list definition */
typedef SSVerPkgList::const_iterator SSVerPkgListIter; /* Iterator definition of package list */
```

### Preconditions

None

### Changes of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only(No communication)

### See also:

[begin](#)

**E\_CWORD78\_Status CSSVer::getPkgInfo (const std::string & name, [SSVER\\_PkgInfo](#) \* p\_info)**

### Summary

Gets the package information of specified package.

### Parameters:

in	name	std::string & - Package name
out	p_info	SSVER_PkgInfo* - Pointer to the storage area of

		package information
--	--	---------------------

The structure of version package information

```
#define SSVER_VERCHAR_MAX (64)
#define SSVER_DATE_MAX (16)
typedef struct{
    char version[SSVER_VERCHAR_MAX]; /* Version information (String): The termination of
    * string must be "\0" */
    char date[SSVER_DATE_MAX]; /* Date (String): The termination of string must be "\0" */
    /* Store "\0" when date information does not exist. */
}SSVER_PkgInfo;

typedef std::map<std::string, SSVER_PkgInfo> SSVerPkgList; /* Package list definition */
typedef SSVerPkgList::const_iterator SSVerPkgListIter; /* Iterator definition of package list */
```

#### Return values:

<i>e_CWORD78_StatusOK</i>	Succeeded in getting package information
<i>e_CWORD78_StatusFileLoadError</i>	Loading error for file
<i>e_CWORD78_StatusFail</i>	Failed at some process

#### Preconditions

None

#### Changes of the internal state

The internal state is not changed.

#### Classification

Public

#### Type

Sync only(Non communication)

#### See also:

[setPkgInfo](#)

**E\_CWORD78\_Status CSSVer::setPkgInfo (const std::string & name, [SSVER\\_PkgInfo](#) & info)**

#### Summary

Sets the package information of specified package.

#### Parameters:

in	<i>name</i>	std::string & - Package name
in	<i>info</i>	SSVER_PkgInfo* - Package information

The structure of version package information

```
#define SSVER_VERCHAR_MAX (64)
#define SSVER_DATE_MAX (16)
typedef struct{
    char version[SSVER_VERCHAR_MAX]; /* Version information (String): The termination of
```

```

*
        string must be "\0" */
        char date[SSVER_DATE_MAX]; /* Date (String): The termination of string must be \ */
        /* Store "\0" when date information does not exist. */
}SSVER_PkgInfo;

typedef std::map<std::string, SSVER_PkgInfo> SSVerPkgList; /* Package list definition */
typedef SSVerPkgList::const_iterator SSVerPkgListIter; /* Iterator definition of package list */

```

**Return values:**

<i>e_CWORD78_StatusOK</i>	Succeeded in setting package information
<i>e_CWORD78_StatusFail</i>	Failed at some process

**Preconditions**

None

**Changes of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[getPkgInfo](#)

**CSSVer::~~CSSVer ()**

**Summary**

Destructor for [CSSVer](#) class

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

None

**Changes of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**

[CSSVer](#)

---

### **Variable Documentation**

**char SSVER\_PkgInfo::date[SSVER\_DATE\_MAX]**

Date (String):The termination of string must be "\0" Date (String):Store "\0" when date information does not exist.

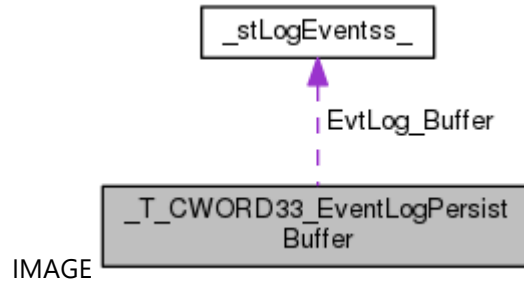
**char SSVER\_PkgInfo::version[SSVER\_VERCHAR\_MAX]**

Version information (String): The termination of string must be "\0"

# Class Documentation

## **\_T\_CWORD33\_EventLogPersistBuffer Struct Reference**

Collaboration diagram for \_T\_CWORD33\_EventLogPersistBuffer:



### **Public Attributes**

[st\\_LogEvent\\_ss](#) **EvtLog\_Buffer** [EVT\_BUFMAXSIZE]  
UI\_16 **Current\_Log\_Size**

### **Static Public Attributes**

static const UI\_16 **EVT\_BUFMAXSIZE** = [MAX EVT RECORDS](#)

---

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

5 [ss\\_logger\\_service\\_local.h](#)



## **\_T\_CWORD33\_ScreenCaptureEvt Struct Reference**

Screen Capture Event data.

```
#include <ss_logger_service.h>
```

### **Public Attributes**

BOOL **fSucessful**

UI\_32 **uiSceenShotId**

CHAR **strNameAndLocation** [STR\_BUFF\_LEN]

UI\_32 **uiFaultReasonCode**

### **Static Public Attributes**

```
static const UI_16 STR_BUFF_LEN = ***
```

---

### **Detailed Description**

Screen Capture Event data.

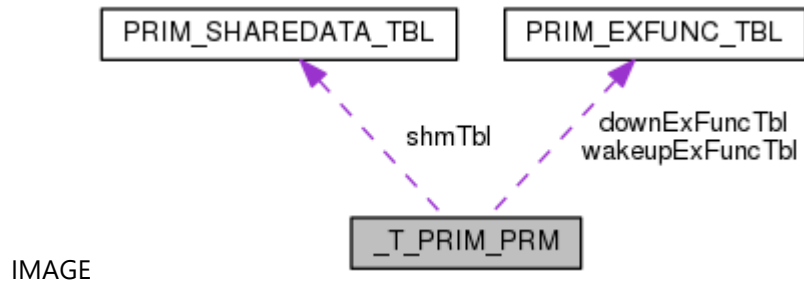
---

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

6 [ss\\_logger\\_service.h](#)

## **\_T\_PRIM\_PRM Struct Reference**

Collaboration diagram for \_T\_PRIM\_PRM:



### **Public Attributes**

PCSTR **name**

const [PRIM\\_SHAREDATA\\_TBL](#) \* **shmTbl**

const [PRIM\\_EXFUNC\\_TBL](#) \* **wakeupExFuncTbl**

const [PRIM\\_EXFUNC\\_TBL](#) \* **downExFuncTbl**

E\_CWORD33\_Status(\* **onInit** )(HANDLE hApp)

E\_CWORD33\_Status(\* **onDestory** )(HANDLE hApp)

E\_CWORD33\_Status(\* **onDebugDump** )(HANDLE hApp)

E\_CWORD33\_Status(\* **onTouch** )(HANDLE hApp)

E\_CWORD33\_Status(\* **onLowMem** )(HANDLE hApp)

void \* **priv**

---

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

7 [INI\\_API.hpp](#)

## **\_TErrorLogger\_FolderInfo Struct Reference**

### **Public Attributes**

CHAR **FoldernameAndLogname** [STR\_BUFF\_LEN]

CHAR **StorageTarget** [STR\_BUFF\_LEN]

### **Static Public Attributes**

static const UI\_16 **STR\_BUFF\_LEN** = \*\*\*

---

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

8 [ss\\_logger\\_service\\_local.h](#)

## **\_TSKM\_EVENT\_INFO\_t Struct Reference**

### **Public Attributes**

TSKM\_EVENT\_t **event**

TSKM\_ERR\_t **errCode**

pid\_t **fromPid**

TSKM\_BOOL\_t **hasExtend**

uint32\_t **extendSize**

void \* **extendPrm**

union {

[TSKM\\_EV\\_PRI\\_REQ\\_WAKEUP\\_PRM\\_t](#) **reqWakeup**

[TSKM\\_EV\\_PRI\\_REQ\\_DOWN\\_PRM\\_t](#) **reqDown**

[TSKM\\_EV\\_PRI\\_REP\\_WAKEUP\\_COMP\\_PRM\\_t](#) **repWakeupComp**

[TSKM\\_EV\\_PRI\\_REP\\_DOWN\\_COMP\\_PRM\\_t](#) **repDownComp**

[TSKM\\_EV\\_PRI\\_REP\\_CONNECT\\_PRM\\_t](#) **repConnect**

[TSKM\\_EV\\_PRI\\_RES\\_WAKEUP\\_PRM\\_t](#) **resWakeup**

[TSKM\\_EV\\_PRI\\_RES\\_DOWN\\_PRM\\_t](#) **resDown**

[TSKM\\_EV\\_LCL\\_CHG\\_SVC\\_STATE\\_PRM\\_t](#) **chgSvc**

} **prm**

---

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

9 [tskm\\_local\\_type.h](#)

## **\_TVINnumber Struct Reference**

VIN numbers.

```
#include <ss_logger_service.h>
```

### **Public Attributes**

```
CHAR VINstr [VIN_LEN]
```

### **Static Public Attributes**

```
static const UI_8 VIN_LEN = ***
```

---

### **Detailed Description**

VIN numbers.

---

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

10 [ss\\_logger\\_service.h](#)

## BOOT\_AccessIf Class Reference

[BOOT\\_AccessIf](#).

```
#include <ss_sm_boot_access.h>
```

### Public Member Functions

[BOOT\\_AccessIf](#) ([BAI\\_OPEN\\_t](#) type)

[~BOOT\\_AccessIf](#) ()

E\_CWORD33\_Status [getBootInfo](#) ([LBM\\_NOR\\_t](#) \*p\_boot\_info)

E\_CWORD33\_Status [setBootInfo](#) ([LBM\\_NOR\\_t](#) \*p\_boot\_info)

---

### Detailed Description

[BOOT\\_AccessIf](#).

### Brief Introduction

Class to provide the function of BOOT\_AccessIf

---

### Constructor & Destructor Documentation

**BOOT\_AccessIf::BOOT\_AccessIf** ([BAI\\_OPEN\\_t](#) type)[explicit]

#### Summary:

Obtain the access permission to the boot information (secondary storage area).

#### Parameters:

in	type	BAI_OPEN_t - Access type to the boot information
----	------	--

BAI\_OPEN\_t

BAI\_MTD\_DEV\_RO Access type for the Read only

BAI\_MTD\_DEV\_RW Access type for the Read and Write

#### Return values:

None
------

#### Precondition:

None

#### Change in the internal status:

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

None

**See also:**[~BOOT\\_AccessIf](#), CL\_LockMap, CL\_LockGet**BOOT\_AccessIf::~~BOOT\_AccessIf ()**

~

**Summary:**

Release the access permission to the boot information (secondary storage area).

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

None

**See also:**[BOOT\\_AccessIf](#), CL\_LockRelease**Member Function Documentation****E\_CWORD33\_Status BOOT\_AccessIf::getBootInfo ([LBM\\_NOR\\_t](#) \* *p\_boot\_info*)****Summary:**

Read the boot information (secondary storage area).

**Parameters:**

out	<i>p_boot_info</i>	LBM_NOR_t * - Destination buffer to read the boot information
-----	--------------------	---

LBM\_NOR\_t Structure body

```

typedef struct LBM\_boot\_t{
    LBM_UINT32 sts1;        //SYSUP_CND_*
    LBM_UINT32 btmode;     //SYSUP_MODE_*
    LBM_UINT32 sts2;        //SYSUP_CND_*
    LBM\_UPTBLINFO upTbl[UPTBLE_ID_MAX];
    LBM_UINT32 sts3;        //SYSUP_CND_*
} LBM\_NOR\_t;

```

Refer to "ss\_boot\_map.h" for the parameters to be set to the member of struct LBM\_NOR\_t.

**Return values:**

<i>e_CWORD33_StatusOK</i>	Reading success
<i>e_CWORD33_StatusFail</i>	Reading failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

Sync only(No communication)

**See also:**

[setBootInfo](#)

**E\_CWORD33\_Status BOOT\_AccessIf::setBootInfo ([LBM\\_NOR\\_t](#) \* *p\_boot\_info*)**

**Summary:**

Write the boot information (secondary storage area).

**Parameters:**

in	<i>p_boot_info</i>	LBM_NOR_t * - Original buffer to write the boot information
----	--------------------	---

```

LBM_NOR_tStructure body
typedef struct LBM\_boot\_t{
    LBM_UINT32 sts1;        //SYSUP_CND_*
    LBM_UINT32 btmode;     //SYSUP_MODE_*
    LBM_UINT32 sts2;        //SYSUP_CND_*
    LBM\_UPTBLINFO upTbl[UPTBLE_ID_MAX];
    LBM_UINT32 sts3;        //SYSUP_CND_*
} LBM\_NOR\_t;

```

Refer to "ss\_boot\_map.h" for the parameters to be set to the member of struct LBM\_NOR\_t.

**Return values:**

<i>e_CWORD33_StatusOK</i>	Write success
---------------------------	---------------



<i>e_CWORD33_StatusFail</i>	Write failed
-----------------------------	--------------

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

Sync only(None communication)

**See also:**

[getBootInfo](#)

---

**The documentation for this class was generated from the following file:**

11 [ss\\_sm\\_boot\\_access.h](#)

## CHeartBeatServicelf Class Reference

### Public Member Functions

[CHeartBeatServicelf](#) (BOOL avail, HANDLE service, PCSTR name)

virtual [~CHeartBeatServicelf](#) ()

E\_CWORD33\_Status [OnHeartBeatRequest](#) (HANDLE hApp)

### Friends

E\_CWORD33\_Status **DBG\_CloseHeatBeat** (HANDLE hApp)

---

### Constructor & Destructor Documentation

**CHeartBeatServicelf::CHeartBeatServicelf** (BOOL *avail*, HANDLE *service*, PCSTR *name*)

#### Summary

Constructor of [CHeartBeatServicelf](#) class.

#### Parameters:

in	<i>avail</i>	BOOL avail - default value of HBSession available
in	<i>service</i>	HANDLE service - set default value of Service handle
in	<i>name</i>	PSTR name - set application name used by client

#### Return values:

<i>None</i>	
-------------	--

#### Preconditions

None.

#### Change of the internal state

Change of internal state according to the API does not occur.

#### Classification

Public

#### Type

None

#### See also:

[~CHeartBeatServicelf](#)

**virtual CHeartBeatServicelf::~~CHeartBeatServicelf** ()[virtual]

#### Summary

Destructor of [CHeartBeatServicelf](#) class.

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Preconditions**

None.

**Change of the internal state**

Change of internal state according to the API does not occur.

**Classification**

Public

**Type**

None

**See also:**

[CHeartBeatServiceIf](#)

**Member Function Documentation****E\_CWORD33\_Status CHeartBeatServiceIf::OnHeartBeatRequest (HANDLE hApp)****Summary**

Subscribe hApp to message queue of the HeartBeat client application.

**Parameters:**

in	<i>f_hApp</i>	HANDLE - Handle to message queue of the HeartBeat client application.
----	---------------	---

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

**Preconditions**

### **Change of the internal state**

Change of internal state according to the API does not occur.

### **Classification**

Public

### **Type**

None

### **See also:**

`_CWORD33_GetAppName` `_CWORD33_SubscribeNotificationsWithCallback`

---

**The documentation for this class was generated from the following file:**

12 [ss\\_heartbeat\\_if.h](#)

## CSSVer Class Reference

Version information set-up/acquisition.

```
#include <ss_ver.h>
```

### Public Member Functions

[CSSVer](#) ()

[~CSSVer](#) ()

SSVerPkgListIter [begin](#) ()

SSVerPkgListIter [end](#) ()

bool [empty](#) ()

E\_CWORD78\_Status [getPkgInfo](#) (const std::string &name, [SSVER\\_PkgInfo](#) \*p\_info)

E\_CWORD78\_Status [setPkgInfo](#) (const std::string &name, [SSVER\\_PkgInfo](#) &info)

---

### Detailed Description

Version information set-up/acquisition.

### Brief Introduction

Class to provide the function of the version information set-up/acquisition

---

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

13 [ss\\_ver.h](#)

## EnumStringMap< enumT, fp > Class Template Reference

[EnumStringMap.](#)

```
#include <ss_templates.h>
```

### Public Member Functions

[EnumStringMap](#) ()

[~EnumStringMap](#) ()

SS\_String **GetStr** (enumT f\_enum)

---

### Detailed Description

```
template<typename enumT, void(*) (std::map< enumT, SS_String > &m_strMap) fp>
```

```
class EnumStringMap< enumT, fp >
```

[EnumStringMap.](#)

### Brief Introduction

Class to provide [EnumStringMap](#) template function

---

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

14 [ss\\_templates.h](#)

## LoggerServicelf Class Reference

logger\_service

#include <ss\_logger\_service\_ifc.h>

### Public Member Functions

[LoggerServicelf](#) ()

virtual [~LoggerServicelf](#) ()

BOOL [Initialize](#) (HANDLE hApp)

E\_CWORD33\_Status [NotifyOnLoggerServiceAvailability](#) (CbFuncPtr f\_pCallBackFn)

E\_CWORD33\_Status [NotifyOnOpenSessionAck](#) (CbFuncPtr f\_pCallBackFn)

E\_CWORD33\_Status [NotifyOnCloseSessionAck](#) (CbFuncPtr f\_pCallBackFn)

E\_CWORD33\_Status [OpenSessionRequest](#) ()

E\_CWORD33\_Status [DecodeOpenSessionResponse](#) ()

E\_CWORD33\_Status [CloseSessionRequest](#) ()

E\_CWORD33\_Status [RegisterForLoggerEvent](#) ([SS\\_LoggerServerEvents](#) f\_eLoggerEvent, CbFuncPtr f\_pCallBackFn)

E\_CWORD33\_Status [UnRegisterForLoggerEvent](#) ([SS\\_LoggerServerEvents](#) f\_eLoggerEvent)

E\_CWORD33\_Status [SendDiagStat](#) ([STLOGGER\\_CANDIAGSTAT](#) \*pCanDiagStat\_t)

E\_CWORD33\_Status [Loggerlf\\_CANGetCurrentDateAndTime](#) ([STCanCurrentDateTime](#) stDateAndTime)

E\_CWORD33\_Status [Loggerlf\\_CANSetVIN](#) ([STVIN\\_NUMBER](#) &stVinNumber)

E\_CWORD33\_Status [Loggerlf\\_SetLoggerParams](#) ([ELOGGER\\_STAT](#) eLoggerStatus, [EDEV\\_TYPE](#) eDevType)

E\_CWORD33\_Status [Loggerlf\\_UDPLogging](#) ([ELOGGER\\_STAT](#) eLoggerStatus)

E\_CWORD33\_Status [Loggerlf\\_ScreenCaptureEventACK](#) ([STScreenCaptureEvt](#) stScreenCaptureInfo)

E\_CWORD33\_Status [Loggerlf\\_EventLoggingCommonInfo](#) ([STEventLoggerCommonInfo](#) stEventCommonInfo)

E\_CWORD33\_Status [Loggerlf\\_EventLoggingEventInfo](#) ([STEventLoggerEventInfo](#) stEventInfo)

E\_CWORD33\_Status [Loggerlf\\_EventLoggingResetInfo](#) ([STEventLoggerResetInfo](#) stResetInfo)

E\_CWORD33\_Status [Loggerlf\\_PersistEventLogOnActiveDTC](#) (void)

E\_CWORD33\_Status [Loggerlf\\_CWORD105\\_Shutdown\\_Complete](#) (void)

E\_CWORD33\_Status [StoreEventLogsToUSB](#) ([EEvtLogUSBDevNumber](#) eUSBDevNumber)

E\_CWORD33\_Status [StoreEmergencyErrorLogsToUSB](#) ([EDevNumber](#) eDevNumber)

E\_CWORD33\_Status [StartCANLogging](#) (void)

E\_CWORD33\_Status [RegisterLoggingStartNotification](#) (CbFuncPtr f\_pCallBackFn)

E\_CWORD33\_Status [RegisterLoggingFinishNotification](#) (CbFuncPtr f\_pCallBackFn)

E\_CWORD33\_Status [StartDTCLoggingToEmmc](#) (UI\_32 f\_dtc)

E\_CWORD33\_Status [ClearEventLogs](#) (void)

E\_CWORD33\_Status [ReadStatisticalCounter](#) ([EStatCounterGroupID](#) eCounterGroup)

E\_CWORD33\_Status [ResetStatisticalCounter](#) ([EStatCounterGroupID](#) eCounterGroup)

E\_CWORD33\_Status [Loggerlf\\_SetDiagID](#) (UI\_16 f\_u16DiagID)

E\_CWORD33\_Status [Loggerlf\\_UploadEventLog](#) ()

## Detailed Description

logger\_service

## Brief Introduction

Class to provide [LoggerServiceIf](#)

---

## Constructor & Destructor Documentation

### LoggerServiceIf::LoggerServiceIf ()

#### Summary

Constructor of [LoggerServiceIf](#) class.

#### Parameters:

None	
------	--

#### Return values:

None	
------	--

#### Preconditions

None.

#### Change of the internal state

The internal state is not changed.

#### Classification

Public

#### Type

None

#### See also:

[~LoggerServiceIf](#), [Initialize](#)

### virtual LoggerServiceIf::~~LoggerServiceIf ()[virtual]

~

#### Summary

Destructor of [LoggerServiceIf](#) class.

#### Parameters:

None	
------	--

#### Return values:

None	
------	--



## Preconditions

None.

## Change of the internal state

The internal state is not changed.

## Classification

Public

## Type

None

## See also:

[LoggerServiceIf](#)

---

## Member Function Documentation

### E\_CWORD33\_Status LoggerServiceIf::ClearEventLogs (void )

#### Summary

API to request to clear the event log to SS\_LoggerService.

#### Parameters:

<i>None</i>	
-------------	--

#### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

#### Preconditions

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

(*\_CWORD33\_CreateDispatcherWithoutLoop*) has been done, and Availability of SS\_LoggerService is TRUE.

#### Change of the internal state

The internal state is not changed.

#### Classification

Public

**Type**

Fire and Forget x Pub-Sub

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::CloseSessionRequest ()****Summary**

API to discard service/session of SS\_LoggerService.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

**Preconditions**

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

([\\_CWORD33\\_CreateDispatcherWithoutLoop](#) etc.) has been done, and Availability of SS\_LoggerService is TRUE.

Use the [NotifyOnCloseSessionAck\(\)](#), that you register a callback function for receiving a completion response of CloseSessionRequest to Dispatcher

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Pub-Sub Pub-Sub

**See also:**

[OpenSessionRequest](#)

## E\_CWORD33\_Status LoggerServiceIf::DecodeOpenSessionResponse ()

### Summary

API to hold the session ID in SS\_LoggerServiceIf class

### Parameters:

<i>None</i>	
-------------	--

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred

### Preconditions

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(\_CWORD33\_CreateDispatcherWithoutLoop etc.) has been done, and Availability of  
SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only(None communication)

### See also:

[OpenSessionRequest](#), [CloseSessionRequest](#)

## BOOL LoggerServiceIf::Initialize (HANDLE hApp)

### Summary

API to initialize the [LoggerServiceIf](#) class.

### Parameters:

in	<i>hApp</i>	HANDLE - HANDLE for Application
----	-------------	---------------------------------

### Return values:

<i>TRUE</i>	Success
<i>FALSE</i>	Failure

### Preconditions

None.

### Change of the internal state

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[LoggerServiceIf](#)

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_CWORD105\_Shutdown\_Complete (void )**

**Summary**

API to send a shutdown completion message of the *CWORD105* to SS\_LoggerService.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

(*\_CWORD33\_CreateDispatcherWithoutLoop*) has been done, and Availability of

SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Fire and Forget

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_CANGetCurrentDateAndTime**  
**([STCanCurrentDateTime](#) stDateAndTime)**

**Summary**

API to send the current date and time of the CAN to SS\_LoggerService.

**Parameters:**

in	<i>stDateAndTime</i>	STCanCurrentDateTime - Structure of CAN current date and time
----	----------------------	---

STCanCurrentDateTime Structure

```
typedef struct \_CWORD62\_DateAndTime
{
    UI_8 DateTime_Stat; /* Date and Time State */
    UI_8 DateTimeDay; /* Day */
    UI_8 DateTimeHour; /* Hour */
    UI_8 DateTimeMinute; /* Minute */
    UI_8 DateTimeMonth; /* Month */
    UI_8 DateTimeSecond; /* Second */
    UI_8 DateTimeYear; /* Year */
    UI_8 TimeFormat; /* Time display format */
};
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Sync

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_CANSetVIN ([STVIN\\_NUMBER](#) & *stVinNumber*)****Summary**

API to send the Vehicle Identification Number(VIN) to SS\_LoggerService.

**Parameters:**

in	<i>stVinNumber</i>	STVIN_NUMBER& - Structure of Vehicle Identification Number(VIN)
----	--------------------	---

STVIN\_NUMBER Structure

typedef struct [\\_TVINnumber](#)

{

static const UI\_8 VIN\_LEN = \*\*;

CHAR VINstr[VIN\_LEN]; /\* Vehicle Identification Number(VIN) \*/

};[STVIN\\_NUMBER](#);**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

(\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of

SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Sync

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_EventLoggingCommonInfo**  
**([STEventLoggerCommonInfo](#) *stEventCommonInfo*)****Summary**

API to send the event information of the common log in SS\_LoggerService.

**Parameters:**

in	<i>stEventCommonInfo</i>	STEventLoggerCommonInfo - Event information structure of the common log
----	--------------------------	---

**STEventLoggerCommonInfo Structure**

```
typedef struct \_SEventLoggerCommonInfo
{
    UI_8 BodyCAN_Stat:4; /* CAN state of the body */
    UI_8 HeadUnitCAN_Stat:4; /* CAN state of the Head Unit */
    UI_8 HMIInteraction:4; /* HMI Interaction */
    UI_8 IGN_Status:4; /* Ignition state */
    UI_8 FOT_Temp:2; /* Field Operation Tests Temporary */
    UI_8 Syst_CWORD61_oltage:6; /* System Voltage */
} STEventLoggerCommonInfo;
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

(\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Fire and Forget

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_EventLoggingEventInfo**  
**([STEventLoggerEventInfo](#) *stEventInfo*)**

**Summary**

API to send the event information of the *CWORD56* log to SS\_LoggerService.

**Parameters:**

in	<i>stEventInfo</i>	STEventLoggerEventInfo - Event information structure of <i>CWORD56</i> log
----	--------------------	--

## STEventLoggerEventInfo Structure

```
typedef struct \_SEventLoggerCommonInfo
{
    UI_8 NumberOfEvents; /* Event count */
    UI_8 EventGroup; /* Event group */
    UI_8 EventIdentifier; /* Event identifier */
    UI_8 EventData[4]; /* Event data */
} STEventLoggerEventInfo;
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (*\_CWORD33\_CreateDispatcherWithoutLoop*) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public



**Type**

Fire and Forget x Fire and Forget

**See also:**

None

**E\_CWORD33\_Status\_LoggerServiceIf::LoggerIf\_EventLoggingResetInfo**  
**([STEventLoggerResetInfo](#) *stResetInfo*)**

**Summary**

API to send the event information of *CWORD56* reset count to SS\_LoggerService.

**Parameters:**

in	<i>stResetInfo</i>	STEventLoggerResetInfo - Event information structure of <i>CWORD56</i> reset counter
----	--------------------	--

## STEventLoggerResetInfo Structure

typedef struct [\\_SEventLoggerResetInfo](#)

```
{
    UI_8_CWORD56_ResetInfo; /* Reset counter information of _CWORD56_ */
    UI_8_CWORD102_ResetInfo; /* Reset counter information of _CWORD102_ */
};
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

(*\_CWORD33\_CreateDispatcherWithoutLoop*) has been done, and Availability of SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Fire and Forget

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_PersistEventLogOnActiveDTC (void )****Summary**

API to persist the event log on the DTC to SS\_LoggerService.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Sync

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_ScreenCaptureEventACK**  
**(STScreenCaptureEvt stScreenCaptureInfo)**

**Summary**

API to send the event response of screen capture to SS\_LoggerService.

**Parameters:**

in	<i>stScreenCaptureInfo</i>	STScreenCaptureEvt - Structure of event data of screen capture
----	----------------------------	--

**STScreenCaptureEvt Structure**

```
typedef struct T\_CWORD33\_ScreenCaptureEvt
{
    static const UI_16 STR_BUFF_LEN = ***;
    BOOL          fSuccessful;          /* Success propriety flag */
    UI_32         uiScenShotId;        /* Screen capture ID */
    CHAR          strNameAndLocation[STR_BUFF_LEN]; /* Screen capture save file name */
    UI_32         uiFaultReasonCode;   /* Failure reason code */
};STScreenCaptureEvt;
```

- uiFaultReasonCode : Failure reason code (plm::screen\_shot::status List)
- ok : Success
- invalid\_window\_handle : Invalid window handle
- invalid\_context\_handle : Invalid context handle
- display\_count\_error : Display count error
- rgb\_display\_not\_found : RGB display not found
- create\_pixmap\_error : Create error of PIXMAP
- usage\_pixmap\_property\_error : Usage error of PIXMAP property
- format\_pixmap\_property\_error : Format error of PIXMAP property
- buffer\_pixmap\_property\_error : Buffer error of PIXMAP property
- create\_pixmap\_buffer\_error : Create error of PIXMAP buffer
- render\_pixmap\_property\_error : Render error of PIXMAP property
- pointer\_pixmap\_property\_error : Pointer error of PIXMAP property
- stride\_pixmap\_property\_error : Stride error of PIXMAP property
- window\_read\_error : Window read error
- write\_bitmap\_file\_error : Writing error of bitmap files
- window\_post\_error : Window post error
- window\_property\_error : Window property error

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size

<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Sync

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_SetDiagID (UI\_16 *f\_u16DiagID*)**

**Summary**

API to send the diagnosis ID to SS\_LoggerService.

**Parameters:**

in	<i>f_u16DiagID</i>	UI_16 - Diagnosis ID
----	--------------------	----------------------

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Sync

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_SetLoggerParams ([ELOGGER\\_STAT](#) [eLoggerStatus](#), [EDEV\\_TYPE](#) [eDevType](#))**

**Summary**

API to send the logging propriety information of the selected device to SS\_LoggerService.

**Parameters:**

in	<i>eLoggerStatus</i>	ELOGGER_STAT - Logging propriety information
in	<i>eDevType</i>	EDEV_TYPE - Device type

ELOGGER\_STAT enum value

```
typedef enum \_LoggerState
{
    eDeactivate,      /* Logging impossible(Deativate) */
    eActivate,        /* Logging possible(Activate) */
    eInvalid_LoggerState /* Invalid logging state */
};ELOGGER\_STAT;
```

EDEV\_TYPE enum value

```
typedef enum \_LoggerDeviceTypes
{
    eDevUSB1,        /* USB1 */
    eDevUSB2,        /* USB2 */
    eDevSD,          /* SD */
    eEthernet,       /* Ethernet */
    eTotalDevicesTypes, /* Total device types */
    eInvalid_DevType /* Invalid device type */
};EDEV\_TYPE;
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred

<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)
---------------------------------	--

### Preconditions

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget x Sync

### See also:

None

## E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_UDPLogging ([ELOGGER\\_STAT](#) *eLoggerStatus*)

### Summary

API to send the logging propriety information of UDP to SS\_LoggerService.

### Parameters:

in	<i>eLoggerStatus</i>	ELOGGER_STAT - Logging propriety information
----	----------------------	--

ELOGGER\_STAT enum value  
 typedef enum [\\_ELoggerState](#)  
 {  
     eDeactivate,       /\* Logging impossible(Deactivate) \*/  
     eActivate,        /\* Logging possible(Activate) \*/  
     eInvalid\_LoggerState /\* Invalid logging state \*/  
 }[ELOGGER\\_STAT](#);

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget x Sync

### See also:

None

## E\_CWORD33\_Status LoggerServiceIf::LoggerIf\_UploadEventLog ()

### Summary

API to request the upload of the event log to SS\_LoggerService.

### Parameters:

None	
------	--

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

**Classification**

Public

**Type**

Method x Fire and Forget

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::NotifyOnCloseSessionAck (CbFuncPtr *f\_pCallbackFn*)****Summary**

API to set the Callback function for CloseSessionRequest response from SS\_LoggerService.

**Parameters:**

in	<i>f_pCallbackFn</i>	CbFuncPtr - Callback function pointer for receiving the response of OpenSessionRequest
----	----------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle

**Preconditions**

Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**[NotifyOnOpenSessionAck](#)**E\_CWORD33\_Status LoggerServiceIf::NotifyOnLoggerServiceAvailability (CbFuncPtr *f\_pCallbackFn*)****Summary**

API to set the Callback function for Availability notification of SS\_LoggerService.

**Parameters:**

in	<i>f_pCallbackFn</i>	CbFuncPtr - Pointer to function callback for SS_LoggerService Availability Notification
----	----------------------	---



**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

**Preconditions**

Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop etc.) has been done.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Pub-Sub Pub-Sub

**See also:**

None

**E\_CWORD33\_Status LoggerServiceIf::NotifyOnOpenSessionAck (CbFuncPtr *f\_pCallbackFn*)****Summary**

API to set the Callback function for OpenSessionRequest response from SS\_LoggerService.

**Parameters:**

in	<i>f_pCallbackFn</i>	CbFuncPtr - Callback function pointer for receiving the response of OpenSessionRequest
----	----------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle

**Preconditions**

Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop etc.) has been done.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only(None communication)

### See also:

[NotifyOnCloseSessionAck](#)

## E\_CWORD33\_Status LoggerServiceIf::OpenSessionRequest ()

### Summary

API to generate service/session of SS\_LoggerService.

### Parameters:

<i>None</i>	
-------------	--

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

### Preconditions

SS\_LoggerService process has been started.

Availability of SS\_LoggerService is TRUE.

Generation/initialization of Dispatcher for the Application

(\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of SS\_LoggerService is TRUE.

Use the [NotifyOnOpenSessionAck\(\)](#), that you register a callback function for receiving a completion response of OpenSessionRequest to Dispatcher

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Method x Fire and Forget

### See also:

[CloseSessionRequest](#)

## E\_CWORD33\_Status LoggerServiceIf::ReadStatisticalCounter ([EStatCounterGroupID](#) [eCounterGroup](#))

### Summary

API to request a statistics counter reading of the event log to SS\_LoggerService.

### Parameters:

in	<i>eCounterGroup</i>	EStatCounterGroupID - Group ID of the statistics counter
----	----------------------	--

EStatCounterGroupID enum value

```
typedef enum ECounterGroupID
{
    STARTUP_SHUTDOWN_COUNTER_GROUP = 0x01, /* Statistics counter group for StartUp/Shutdown */
    _CWORD105_EVENTS_COUNTER_GROUP, /* Statistics counter group for _CWORD105_event */
    APP_USAGE_COUNTER_GROUP, /* Statistics counter group for application usage */
    F_BLK_STABILITY_COUNTER_GROUP, /* Do not use : Statistics counter for flash access */
    MAX_COUNTER_GROUP /* Max value of statistics counter group */
}; EStatCounterGroupID;
```

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvlHandle</i>	Invalid handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvlBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

([\\_CWORD33\\_CreateDispatcherWithoutLoop](#)) has been done, and Availability of

SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Method x Fire and Forget

### See also:

None

## E\_CWORD33\_Status LoggerServiceIf::RegisterForLoggerEvent ([SS\\_LoggerServerEvents](#) *f\_eLoggerEvent*, CbFuncPtr *f\_pCallbackFn*)

### Summary

API to register a Callback function for SS\_LoggerService.

### Parameters:

in	<i>f_eLoggerEvent</i>	SS_LoggerServerEvents - Event type
in	<i>f_pCallbackFn</i>	CbFuncPtr - Pointer to a callback function that corresponds to the event

SS\_LoggerServerEvents enum value

typedef enum [\\_LoggerServerEvents](#)

```
{
    SS_LOGGER_SCREENCAPTURE_EVT = ***, /* Event notification of the Screen Capture */
    SS_LOGGER_ERRORINFO_EVT, /* Event notification of error log information */
    SS_LOGGER_LOGINFORM_EVT, /* Event notification of log information */
    SS_LOGGER_LOGSTARTED_EVT /* Event notification at the time of log start */
}SS_LoggerServerEvents;
```

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.

Generation/initialization of Dispatcher for the Application

(*\_CWORD33\_CreateDispatcherWithoutLoop* etc.) has been done, and Availability of SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only(None communication)

**See also:**

[UnRegisterForLoggerEvent](#)

**E\_CWORD33\_Status LoggerServiceIf::RegisterLoggingFinishNotification (CbFuncPtr f\_pCallbackFn)**

**Summary**

API to set a callback function for CAN logging finish notification.

**Parameters:**

in	<i>f_pCallbackFn</i>	CbFuncPtr - Callback function pointer for CAN logging finish notification
----	----------------------	---

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

**Preconditions**

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(*\_CWORD33\_CreateDispatcherWithoutLoop* etc.) has been done.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Pub-Sub Pub-Sub

**See also:**

[StartCANLogging](#), [RegisterLoggingStartNotification](#)

## E\_CWORD33\_Status LoggerServiceIf::RegisterLoggingStartNotification (CbFuncPtr f\_pCallbackFn)

### Summary

API to set a callback function for CAN logging start notification.

### Parameters:

in	<i>f_pCallbackFn</i>	CbFuncPtr - Callback function pointer for CAN logging start notification
----	----------------------	--

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldParam</i>	Invalid parameter
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusInvldHndlType</i>	Invalid type of handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error has occurred(Cannot access shared memory, etc.)

### Preconditions

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(\_CWORD33\_CreateDispatcherWithoutLoop etc.) has been done.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Pub-Sub Pub-Sub

### See also:

[StartCANLogging](#), [RegisterLoggingFinishNotification](#)

## E\_CWORD33\_Status LoggerServiceIf::ResetStatisticalCounter ([EStatCounterGroupID](#) eCounterGroup)

### Summary

API to request the reset of statistics counters of the event log to SS\_LoggerService.

**Parameters:**

in	<i>eCounterGroup</i>	EStatCounterGroupID - Group ID of the statistics counter
----	----------------------	--

EStatCounterGroupID enum value

```
typedef enum ECounterGroupID
{
    STARTUP_SHUTDOWN_COUNTER_GROUP =0x01, /* Statistics counter group for StartUp/Shutdown */
    _CWORD105_EVENTS_COUNTER_GROUP, /* Statistics counter group for _CWORD105_event */
    APP_USAGE_COUNTER_GROUP, /* Statistics counter group for application usage */
    F_BLK_STABILITY_COUNTER_GROUP, /* Do not use : Statistics counter for flash access */
    MAX_COUNTER_GROUP /* Max value of statistics counter group */
};EStatCounterGroupID;
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Fire and Forget

**See also:**

None

**E\_CWORD33\_Status LoggerService::SendDiagStat ([STLOGGER CANDIAGSTAT](#) \*  
*pCanDiagStat\_t*)**

**Summary**

API to send CAN Diagnostic status data(it has mileage information) to SS\_LoggerService.

**Parameters:**

in	<i>pCanDiagStat_t</i>	STLOGGER_CANDIAGSTAT - Pointer to structure of CAN Diagnostic state data
----	-----------------------	--

**STLOGGER\_CANDIAGSTAT Structure**

```
typedef struct T\_CWORD33\_CANMileageInfo
{
    UI_8 DidA_ExtTest_Pres; /* For extended test(unused) */
    UI_8 EngRun_Stat; /* Engine run state(unused) */
    UI_8 Odo_CWORD34_H; /* Mileage information(_CWORD34_:High) */
    UI_8 Odo_CWORD34_L; /* Mileage information(_CWORD34_:Low) */
    UI_8 Odo_LSB_H; /* Mileage information(LSB:High) */
    UI_8 Odo_LSB_L; /* Mileage information(LSB:Low) */
    UI_8 PN14_SupBat_Volt; /* Battery voltage(unused) */
};STLOGGER\_CANDIAGSTAT;
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

**Preconditions**

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Fire and Forget x Sync

**See also:**

None



## E\_CWORD33\_Status LoggerServiceIf::StartCANLogging (void )

### Summary

API to request the start of CAN logging to SS\_LoggerService.

### Parameters:

None	
------	--

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(*\_CWORD33\_CreateDispatcherWithoutLoop*) has been done, and Availability of  
SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget Fire and Forget

### See also:

[RegisterLoggingStartNotification](#), [RegisterLoggingFinishNotification](#)

## E\_CWORD33\_Status LoggerServiceIf::StartDTCLoggingToEmmc (UI\_32 *f\_dtc*)

### Summary

API to request the start of CAN logging to SS\_LoggerService.

### Parameters:

None	
------	--

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
---------------------------	---------

<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget Fire and Forget

### See also:

None

## **E\_CWORD33\_Status LoggerServiceIf::StoreEmergencyErrorLogsToUSB ([EDevNumber](#) [eDevNumber](#))**

### Summary

API to request the emergency error log output to USB/SD to SS\_LoggerService.

### Parameters:

in	<i>eDevNumber</i>	EDevNumber - Emergency error log output destination USB/SD device number
----	-------------------	--

```
EDevNumber enum
typedef enum EDevNumber
{
    eEEL_USB1=1,    /* USB0 */
    eEEL_USB2=2,    /* USB1 */
    eEEL_SD=3       /* SD   */
};
```

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle

<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer
<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Fire and Forget Fire and Forget

### See also:

None

## **E\_CWORD33\_Status LoggerServiceIf::StoreEventLogsToUSB ([EEvtLogUSBDevNumber](#) [eUSBDevNumber](#))**

### Summary

API to request an event log output to USB/SD to SS\_LoggerService.

### Parameters:

in	<i>eUSBDevNumber</i>	EEvtLogUSBDevNumber - Event Log output destination USB/SD device number
----	----------------------	--

```

EEvtLogUSBDevNumber enum value
typedef enum \_EEventLoggerUSBDeviceNumber
{
    USB0=0,    /* USB0 */
    USB1=1,    /* USB1 */
    SD=2       /* SD */
};EEvtLogUSBDevNumber;

```

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle
<i>e_CWORD33_StatusNullPointer</i>	Invalid pointer

<i>e_CWORD33_StatusMsgQFull</i>	Message queue is full
<i>e_CWORD33_StatusErrNoEBADF</i>	Invalid File-Descriptor
<i>e_CWORD33_StatusErrNoEINTR</i>	An interrupt is generated by the system call (signal)
<i>e_CWORD33_StatusInvldBufSize</i>	Invalid buffer-size
<i>e_CWORD33_StatusFail</i>	Some sort of error occurred
<i>e_CWORD33_StatusErrOther</i>	Other error(It failed to open/allocation of shared memory)

### Preconditions

SS\_LoggerService process has been started.  
 Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop) has been done, and Availability of  
 SS\_LoggerService is TRUE.

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Method x Fire and Forget

### See also:

None

## **E\_CWORD33\_Status LoggerService::UnRegisterForLoggerEvent ([SS\\_LoggerServerEvents](#) f\_eLoggerEvent)**

### Summary

API to cancel a Callback function for SS\_LoggerService.

### Parameters:

in	<i>f_eLoggerEvent</i>	SS_LoggerServerEvents - Event type
----	-----------------------	------------------------------------

SS\_LoggerServerEvents enum value

typedef enum [LoggerServerEvents](#)

```
{
    SS_LOGGER_SCREENCAPTURE_EVT = ***, /* Event notification of the Screen Capture */
    SS_LOGGER_ERRORINFO_EVT, /* Event notification of error log information */
    SS_LOGGER_LOGININFO_EVT, /* Event notification of log information */
    SS_LOGGER_LOGSTARTED_EVT /* Event notification at the time of log start */
}SS_LoggerServerEvents;
```

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusInvldHandle</i>	Invalid handle

### Preconditions

SS\_LoggerService process has been started.  
Generation/initialization of Dispatcher for the Application  
(\_CWORD33\_CreateDispatcherWithoutLoop etc.) has been done, and Availability of  
SS\_LoggerService is TRUE.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[RegisterForLoggerEvent](#)

---

**The documentation for this class was generated from the following file:**

15 [ss\\_logger\\_service ifc.h](#)

## PRIM\_BACKUPCHK\_TBL Struct Reference

### Public Attributes

int32\_t(\* **func** )(int32\_t kind)

---

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

16 [Primary\\_common.h](#)

## PRIM\_EXFUNC\_TBL Struct Reference

### Public Attributes

void(\* **func** )(void \*prm)

void \* **prm**

uint8\_t **localStep**

uint8\_t **rsv** [3]

---

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

17 [Primary\\_common.h](#)

## PRIM\_FORK\_TBL Struct Reference

### Public Attributes

PRI\_DWORD(\* **threadFunc** )(void \*prm)  
void \* **prm**  
uint32\_t **priority**  
uint16\_t **pno**  
uint8\_t **rsv**  
uint8\_t **wakeLocalStep**  
char **threadName** [16]  
char **downLocalStep**  
void \* **primaryLocal**

---

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

18 [Primary\\_common.h](#)



# Process Class Reference

## Public Types

enum **eProcessLoadMode** { **WAIT**, **NOWAIT** }

enum **eProcessSchedulingPolicy** { **FIFO**, **ROUND\_ROBIN**, **OTHER** }

## Public Member Functions

[Process](#) ()

[Process](#) (const [Process](#) &p\_rhs\_i)

virtual [~Process](#) ()

[Process](#) & [operator=](#) (const [Process](#) &p\_rhs\_i)

int const [GetProcessId](#) (void)

void [SetCallingArgumentList](#) (const char \*p\_pcArgv\_i[], const int p\_iArgc\_i)

void [SetCallingArgumentList](#) (const StringList &p\_strlstParameters\_i)

const char \*const [GetExecutableFileName](#) ()

int [GetProcessReturnCode](#) (void)

void [SetSchedulingPolicy](#) (const eProcessSchedulingPolicy p\_eSchedulingPolicy\_i)

eProcessSchedulingPolicy const [GetSchedulingPolicy](#) (void)

void [SetPriority](#) (const int p\_iPriority\_i)

void [SetPriority](#) (const pid\_t p\_iPid\_i, const int p\_iPriority\_i)

void [IncreasePriorityByOne](#) (void)

void [DecreasePriorityByOne](#) (void)

int const [GetPriority](#) (void)

void [SetProcessName](#) (const SS\_String &p\_strProcessName\_i)

SS\_String [GetProcessName](#) (void) const

void [CreateProcess](#) (const SS\_String &p\_strFile\_i, const StringList &p\_strlstArgv\_i, const eProcessLoadMode p\_eMode\_i, const SS\_String &p\_strProcessName\_i, const eProcessSchedulingPolicy p\_eSchedulingPolicy\_i, const int p\_iPriority\_i, const char \*unix\_user\_name, const long p\_lSpawnFlags\_i)

void [CreateProcess](#) (const SS\_String &p\_strFile\_i, const SS\_String &p\_strProcessName\_i, const char \*unix\_user\_name=NULL, const long p\_lSpawnFlags\_i=iProcess\_DEFAULT\_PROCESS\_FLAGS)

void [CreateProcess](#) (const SS\_String &p\_strFile\_i, const SS\_String &p\_strProcessName\_i, const int p\_iPriority\_i, const char \*unix\_user\_name=NULL, const long p\_lSpawnFlags\_i=iProcess\_DEFAULT\_PROCESS\_FLAGS)

void [CreateProcess](#) (const SS\_String &p\_strFile\_i, const char \*unix\_user\_name=NULL, const long p\_lSpawnFlags\_i=iProcess\_DEFAULT\_PROCESS\_FLAGS)

void [CreateProcess](#) (const SS\_String &p\_strFile\_i, const SS\_String &p\_strProcessName\_i, const StringList &p\_strlstArgv\_i, const char \*unix\_user\_name=NULL, const long p\_lSpawnFlags\_i=iProcess\_DEFAULT\_PROCESS\_FLAGS)

void [CreateProcess](#) (const SS\_String &p\_strFile\_i, const SS\_String &p\_strProcessName\_i, const int p\_iPriority\_i, const StringList &p\_strlstArgv\_i, const char \*unix\_user\_name=NULL, const long p\_lSpawnFlags\_i=iProcess\_DEFAULT\_PROCESS\_FLAGS)

void [CreateProcess](#) (const SS\_String \*p\_str\_file, char \*const \*c\_argv, char \*environment\_string, const CL\_ProcessAttr\_t \*cl\_attr)

void [CreateProcessWait](#) (const SS\_String &p\_strFile\_i)

void [CreateProcessWait](#) (const SS\_String &p\_strFile\_i, const StringList &p\_strlstArguments\_i)

void [KillProcess](#) (int signal=SIGKILL)  
 BOOL [DoesProcessExist](#) (void)  
 void [DisableAutoKill](#) (void)  
 void [EnableAutoKill](#) (void)

## Constructor & Destructor Documentation

### Process::Process ()

#### Summary

Default Constructor, called when the class is instantiated.

#### Parameters:

None	
------	--

#### Return values:

None	
------	--

#### Preconditions

-nopreconditions

#### Change of the internal state

initialize all var

#### Classification

Public

#### Type

sync only

#### See also:

[~Process](#)

### Process::Process (const [Process](#) & *p\_rhs\_i*)

#### Summary

Copy Constructor

#### Parameters:

in	-	p_rhs_i 19 <a href="#">Process</a> - Reference to a <a href="#">Process</a> that you want to copy.
----	---	---

**Return values:**

None	
------	--

**Preconditions**

-noprerequisites

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

[~Process](#)

**virtual Process::~~Process ()[virtual]**

~

**Summary**

Destructor function

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Preconditions**

-noprerequisites

**Change of the internal state**

set m\_ValidationTag with 0

**Classification**

Public

**Type**

sync only

**See also:**

[Process](#)

## Member Function Documentation

**void Process::CreateProcess (const SS\_String & *p\_strFile\_i*, const StringList & *p\_strlstArgv\_i*, const eProcessLoadMode *p\_eMode\_i*, const SS\_String & *p\_strProcessName\_i*, const eProcessSchedulingPolicy *p\_eSchedulingPolicy\_i*, const int *p\_iPriority\_i*, const char \* *unix\_user\_name*, const long *p\_lSpawnFlags\_i*)**

### Summary

This method will create a process with the executable provided and mode as a calling parameter. The caller can also provide a list of arguments that will be provided to the executable at startup.

### Parameters:

in	<i>p_strFile_i</i>	20 SS_String - Path and Filename of executable to create process for
in	<i>p_strlstArgv_i</i>	21 StringList - List of ARGV values for new process
in	<i>p_eMode_i</i>	22 eProcessLoadMode - Mode to create and load new process
in	<i>p_strProcessName_i</i>	23 SS_String - This is the name that will be registered to the OS for this process
in	<i>p_eSchedulingPolicy_i</i>	24 eProcessSchedulingPolicy
in	<i>p_iPriority_i</i>	25 int - Priority for this process
in	<i>unix_user_name</i>	26 char* - unix user name
in	<i>p_lSpawnFlags_i</i>	27 long - Spawning flags. These are PosixBasedOS001 specific....

eProcessLoadMode enum

- enum eProcessLoadMode {

    WAIT, //The invoked program is loaded into available memory, is executed,

```

        //and then the original program resumes execution.
NOWAIT, // Causes the current program to execute concurrently with the new child process.
};

```

**eProcessSchedulingPolicy enum**

```

- enum eProcessSchedulingPolicy {
    FIFO, // A fixed priority scheduler in which the highest ready process runs until it
        // blocks or is preempted by a higher priority process.
    ROUND_ROBIN, // The same as FIFO, except processes at the same priority level time-slice.
    OTHER // A general time sharing scheduler in which a process decays in priority if it
        // consumes too much processor before blocking. It reverts to its default priority
        // when it blocks. Should it fail to run over a 2 second period and it has decayed
        // then it's boosted one priority level up to a maximum of its default priority.
};

```

**Return values:**

None	
------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

set m\_iErrorCode with 0 set m\_iReturnCode with 0 set m\_eProcessLoadMode with p\_eMode\_i; set m\_strFile with p\_strFile\_i; set m\_strProcessName with p\_strProcessName\_i; use the result of function CL\_ProcessCreate() to set m\_tProcessId

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcess (const SS\_String & p\_strFile\_i, const SS\_String & p\_strProcessName\_i, const char \* unix\_user\_name = NULL, const long p\_lSpawnFlags\_i = iProcess\_DEFAULT\_PROCESS\_FLAGS)**

**Summary**

This method will create a PosixBasedOS001 process with the executable provided and mode as a calling parameter.

**Parameters:**

in	<i>p_strFile_i</i>	28 SS_String - Path and Filename of executable
----	--------------------	--

		to create process for
in	<i>p_strProcessName_i</i>	29 SS_String - This is the name that will be registered to the OS for this process
in	<i>unix_user_name</i>	30 char* - unix user name
in	<i>p_lSpawnFlags_i</i>	31 long - Posix Spawning flags. These are PosixBasedOS001 specific

**Return values:**

None	
------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcess (const SS\_String & *p\_strFile\_i*, const SS\_String & *p\_strProcessName\_i*, const int *p\_iPriority\_i*, const char \* *unix\_user\_name* = NULL, const long *p\_lSpawnFlags\_i* = iProcess\_DEFAULT\_PROCESS\_FLAGS)**

**Summary**

This method will create a process with the executable provided and mode as a calling parameter.

**Parameters:**

in	<i>p_strFile_i</i>	32 SS_String - Path and Filename of executable to create process for
in	<i>p_strProcessName_i</i>	

		33 SS_String - This is the name that will be registered to the OS for this process
in	<i>p_iPriority_i</i>	34 int - Priority of process
in	<i>unix_user_name</i>	35 char* - unix user name
in	<i>p_lSpawnFlags_i</i>	36 long - Posix Spawning flags. These are PosixBasedOS001 specific

**Return values:**

None	
------	--

**Preconditions**

-noprerequisites

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcess (const SS\_String & *p\_strFile\_i*, const char \* *unix\_user\_name* = NULL, const long *p\_lSpawnFlags\_i* = iProcess\_DEFAULT\_PROCESS\_FLAGS)**

**Summary**

This method will create a process with the executable provided and mode as a calling parameter.

**Parameters:**

in	<i>p_strFile_i</i>	37 SS_String - <i>p_strFile_i</i> Path and Filename of executable to create process for
in	<i>unix_user_name</i>	38 char* - unix user name

in	<i>p_lSpawnFlags_i</i>	39 long - Spawning flags. These are PosixBasedOS001 specific.

**Return values:**

None	
------	--

**Preconditions**

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcess (const SS\_String & *p\_strFile\_i*, const SS\_String & *p\_strProcessName\_i*, const StringList & *p\_strlstArgv\_i*, const char \* *unix\_user\_name* = NULL, const long *p\_lSpawnFlags\_i* = iProcess\_DEFAULT\_PROCESS\_FLAGS)**

**Summary**

This method will create a process with the executable provided and mode as a calling parameter.

**Parameters:**

in	<i>p_strFile_i</i>	40 SS_String - <i>p_strFile_i</i> Path and Filename of executable to create process for
in	<i>p_strProcessName_i</i>	41 SS_String - This is the name that will be registered to the OS for this process
in	<i>p_strlstArgv_i</i>	42 StringList - List of ARGV values for new process



in	<i>unix_user_name</i>	43 char* - unix user name
in	<i>p_lSpawnFlags_i</i>	44 long - Spawning flags. These are PosixBasedOS001 specific.

**Return values:**

None
------

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcess (const SS\_String & *p\_strFile\_i*, const SS\_String & *p\_strProcessName\_i*, const int *p\_iPriority\_i*, const StringList & *p\_strlstArgv\_i*, const char \* *unix\_user\_name* = NULL, const long *p\_lSpawnFlags\_i* = iProcess\_DEFAULT\_PROCESS\_FLAGS)**

**Summary**

This method will create a process with the executable provided and mode as a calling parameter.

**Parameters:**

in	<i>p_strFile_i</i>	45 SS_String - Path and Filename of executable to create process for
in	<i>p_strProcessName_i</i>	46 SS_String - This is the name that will be registered to the OS for this process
in	<i>p_iPriority_i</i>	47 int - Priority for this process

in	<i>p_strlstArgv_i</i>	48 StringList - List of ARGV values for new process
in	<i>unix_user_name</i>	49 char* - unix user name
in	<i>p_lSpawnFlags_i</i>	50 long - Spawning flags. These are PosixBasedOS001 specific.

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcess (const SS\_String \* *p\_str\_file*, char \*const \* *c\_argv*, char \* *environment\_string*, const CL\_ProcessAttr\_t \* *cl\_attr*)**

**Summary**

This method will create a process with the executable provided and mode as a calling parameter.

**Parameters:**

in	<i>p_strFile_i</i>	51 SS_String - Path and Filename of executable to create process for
in	<i>c_argv</i>	52 char - This is the argument that will be registered to the OS for this process

in	<i>environment_string</i>	53 char - enviroment for this process
in	<i>cl_attr</i>	54 CL_ProcessAttr_t - List of ARGV values for new process

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcessWait (const SS\_String & p\_strFile\_i)**

**Summary**

This method will create a process with the executable provided.

**Parameters:**

in	<i>p_strFile_i</i>	55 SS_String - Path and Filename of executable to create process for
----	--------------------	--

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::CreateProcessWait (const SS\_String & *p\_strFile\_i*, const StringList & *p\_strlstArguments\_i*)**

**Summary**

This method will create a PosixBasedOS001 process with the executable provided.

**Parameters:**

in	<i>p_strFile_i</i>	56 SS_String - Path and Filename of executable to create process for
in	<i>p_strlstArguments_i</i>	57 StringList - List of process calling arguments

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

-noprerequisites

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

## void Process::DecreasePriorityByOne (void )

### Summary

This method will decrease the priority for the process this object represents by one.

### Parameters:

None	
------	--

### Return values:

None	
------	--

### Preconditions

-noprecondition

### Change of the internal state

None

### Classification

Public

### Type

sync only

### See also:

None

## void Process::DisableAutoKill (void )[inline]

### Summary

-none

### Parameters:

None	
------	--

### Return values:

None	
------	--

### Preconditions

-nopreconditions

### Change of the internal state

set m\_fAutoKill as FALSE

### Classification

Public

## Type

sync only

## See also:

None

## BOOL Process::DoesProcessExist (void )

### Summary

-Checkiftheprocessexisted

### Parameters:

<i>None</i>	
-------------	--

### Return values:

<i>TRUE</i>	- <a href="#">Process</a> Exists
<i>FALSE</i>	- <a href="#">Process</a> does not exist

### Preconditions

-nopreconditions

### Change of the internal state

The internal state is not changed.

### Classification

Public

## Type

sync only

## See also:

## void Process::EnableAutoKill (void )[inline]

### Summary

Enable the Auto Kill

### Parameters:

<i>None</i>	
-------------	--

### Return values:

<i>None</i>	
-------------	--

### Preconditions

-nopreconditions

### Change of the internal state

set m\_fAutoKill as TRUE

### Classification

Public

### Type

sync only

### See also:

None

**const char\* const Process::GetExecutableFileName ()[inline]**

### Summary

Get executable file name

### Parameters:

<i>None</i>	
-------------	--

### Return values:

<i>Pointer</i>	58 Points to SS_String object that holds the path and executable file name for this process
----------------	---

### Preconditions

-nopreconditions

### Change of the internal state

None

### Classification

Public

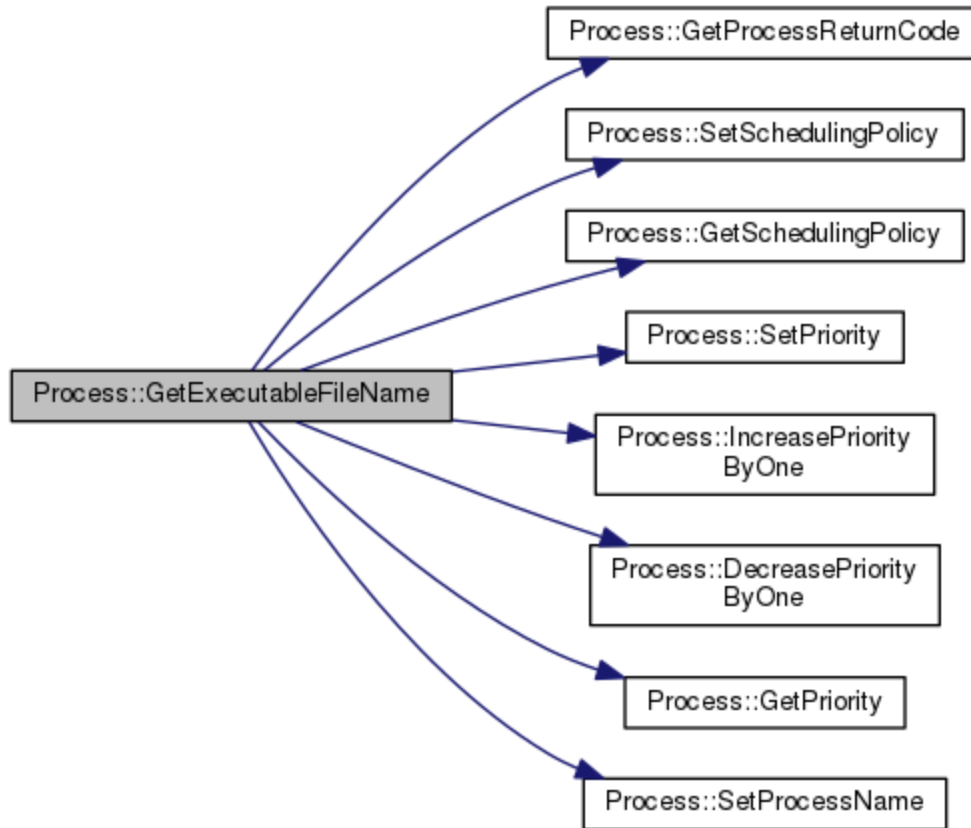
### Type

sync only

### See also:

None

Here is the call graph for this function:



IMAGE

### int const Process::GetPriority (void )

#### Summary

This method will return to the caller the currently configured process priority.

#### Parameters:

None	
------	--

#### Return values:

int	priority - process priority
-----	-----------------------------

#### Preconditions

-nopreconditions

#### Change of the internal state

If the result of function sched\_getparam(m\_tProcessId, &cur\_sch\_params) is less than -1, then m\_iErrorCode will be seted with errno.

#### Classification

Public



## Type

sync only

## See also:

None

**int const Process::GetProcessId (void ) [inline]**

## Summary

get process id

## Parameters:

<i>None</i>	
-------------	--

## Return values:

<i>process</i>	pid - the process pid of the process running.
----------------	---

## Preconditions

-noprerequisites

## Change of the internal state

None

## Classification

Public

## Type

sync only

## See also:

None

Here is the call graph for this function:



**SS\_String Process::GetProcessName (void ) const [inline]**

## Summary

Get process name

## Parameters:

<i>None</i>	
-------------	--

**Return values:**

<i>SS_String</i>	- <a href="#">Process</a> Name
------------------	--------------------------------

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

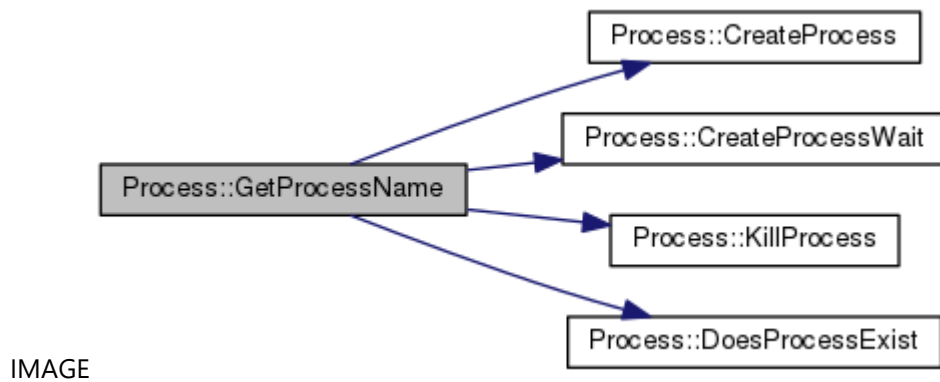
**Type**

sync only

**See also:**

None

Here is the call graph for this function:



**int Process::GetProcessReturnCode (void )**

**Summary**

This function will return the processes exit/return code.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>process</i>	exit code - Code for the last process to execute
----------------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

set m\_iReturnCode with WEXITSTATUS(iProcessReturn)

**Classification**

Public

**Type**

sync only

**See also:**

None

**eProcessSchedulingPolicy const Process::GetSchedulingPolicy (void )**

**Summary**

Get currently configured scheduling policy

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>FIFO</i>	- A fixed priority scheduler in which the highest ready process runs until it blocks or is preempted by a higher priority process.
<i>ROUND_ROBIN</i>	- The same as FIFO, except processes at the same priority level time-slice.
<i>OTHER</i>	- A general time sharing scheduler in which a process decays in priority if it consumes too much processor before blocking. It reverts to its default priority when it blocks. Should it fail to run over a 2 second period and it has decayed then it's boosted one priority level up to a maximum of its default priority.

**Preconditions**

-nopreconditions

**Change of the internal state**

If the result of calling function sched\_getscheduler(m\_tProcessId) is -1 then set m\_iErrorCode with errno

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::IncreasePriorityByOne (void )**

**Summary**

This method will increase the priority for the process this object represents by one.

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Preconditions**

-nopreconditions

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::KillProcess (int *signal* = SIGKILL)**

**Summary**

This method will send the specified signal to the process represented by this object

**Parameters:**

in	<i>signal</i>	int - signal
----	---------------	--------------

**Return values:**

None	
------	--

**Preconditions**

-nopreconditions

## Change of the internal state

Initialize the objects m\_iErrorCode member variable to 0

## Classification

Public

## Type

sync only

## See also:

None

[Process](#) & `Process::operator= (const Process & p_rhs_i)`

=

## Summary

Assignment Operator

## Parameters:

in		
----	--	--

`void Process::SetCallingArgumentList (const char * p_pcArgv_i[], const int p_iArgc_i)`

## Summary

This method will set the calling argument list that this object represents

## Parameters:

in	<i>p_pcArgv_i</i>	const char *[] - Pointer to array of null terminated parameter list.
in	<i>p_iArgc_i</i>	const int - - Number of arguments in the array passed.

## Return values:

<i>None</i>	
-------------	--

## Preconditions

-nopreconditions

## Change of the internal state

put the new arguments into m\_strlstArgv

## Classification

Public

## Type

sync only

## See also:

None

**void Process::SetCallingArgumentList (const StringList & *p\_strlstParameters\_i*)**

## Summary

This method will set the calling argument list that this object represents.

### Parameters:

in	<i>p_strlstParameters_i</i>	const StringList& - String list of arguments that will be used to start.
----	-----------------------------	--

### Return values:

<i>None.</i>	
--------------	--

### Preconditions

nopreconditions.

### Change of the internal state

set *m\_strlstArgv* with *p\_strlstParameters\_i*.

### Classification

Public.

## Type

sync only

## See also:

None

**void Process::SetPriority (const int *p\_iPriority\_i*)**

## Summary

This method will change the priority for the process this object represents.

### Parameters:

in	<i>p_iPriority_i</i>	int - Priority of the process
----	----------------------	-------------------------------

### Return values:

<i>None</i>	
-------------	--

**Preconditions**

-noprerequisites

**Change of the internal state**

If the result of function sched\_setparam(m\_tProcessId, &cur\_sch\_params) is -1, then set m\_iErrorCode with errno, else set m\_iErrorCode with 0.

**Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::SetPriority (const pid\_t p\_iPid\_i, const int p\_iPriority\_i)**

:'

**Summary**

This method will change the priority for the specified process ID.

**Parameters:**

in	<i>p_iPid_i</i>	pid_t - PID of the process to change the priority
in	<i>p_iPriority_i</i>	int - Priority of the process

**Return values:**

<i>None</i>
-------------

**Preconditions**

-noprerequisites

**Change of the internal state****Classification**

Public

**Type**

sync only

**See also:**

None

**void Process::SetProcessName (const SS\_String & p\_strProcessName\_i)**

### Summary

This method will set this objects process name member variable to the provided string value.

### Parameters:

in	<i>p_strProcessName_i</i>	SS_String - <a href="#">Process</a> Name to set the m_strProcessName member variable to
----	---------------------------	---

### Return values:

<i>None</i>	
-------------	--

### Preconditions

-nopreconditions

### Change of the internal state

Using p\_strProcessName\_i to set m\_strProcessName

### Classification

Public

### Type

sync only

### See also:

None

**void Process::SetSchedulingPolicy (const eProcessSchedulingPolicy p\_eSchedulingPolicy\_i)**

### Summary

This method will change the scheduling policy for the process this object represents.

### Parameters:

in	<i>p_eSchedulingPolicy_i</i>	const eProcessSchedulingPolicy - Scheduling Policy for this process
----	------------------------------	---

eProcessSchedulingPolicy

- enum eProcessSchedulingPolicy {

FIFO, A fixed priority scheduler in which the highest ready process runs until it\n blocks or is preempted by a higher priority process.

ROUND\_ROBIN, The same as FIFO, except processes at the same priority level time-slice.

OTHER A general time sharing scheduler in which a process decays in priority if it\n consumes too much processor before blocking. It reverts to its default priority\n



when it blocks. Should it fail to run over a 2 second period and it has decayed\n then it's boosted one priority level up to a maximum of its default priority.

};

**Return values:**

None	
------	--

**Preconditions**

-noprerequisites

**Change of the internal state**

-If the result of function is not 0,then set m\_iErrorCode with errno else set m\_iErrorCode with 0.

**Classification**

Public

**Type**

sync only

**See also:**

None

---

**The documentation for this class was generated from the following file:**

[ss\\_system\\_process.h](#)

# RAM\_AccessIf Class Reference

[RAM\\_AccessIf.](#)

```
#include <ss_sm_ram_access.h>
```

## Public Member Functions

[RAM\\_AccessIf](#) ([RAM\\_WAKEUP\\_STATE](#) wup\_state=RAM\_WAKEUP\_STATE\_DONT\_CARE)

[~RAM\\_AccessIf](#) ()

E\_CWORD33\_Status [getRamInfo](#) ([RAM\\_SM\\_INFO t](#) \*p\_boot\_info)

E\_CWORD33\_Status [setRamInfo](#) ([RAM\\_SM\\_INFO t](#) \*p\_boot\_info)

---

## Detailed Description

[RAM\\_AccessIf.](#)

## Brief Introduction

Class to provide the function of RAM AccessIf

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## Constructor & Destructor Documentation

**RAM\_AccessIf::RAM\_AccessIf** ([RAM\\_WAKEUP\\_STATE](#) wup\_state = [RAM\\_WAKEUP\\_STATE\\_DONT\\_CARE](#))[explicit]

### Summary:

Obtain the access permission to the system management information.

### Parameters:

in	wup_state	RAM_WAKEUP_STATE - System manager wakeup state type
----	-----------	---

RAM\_WAKEUP\_STATE

RAM\_WAKEUP\_STATE\_DONT\_CARE Don't care wakeup state

RAM\_WAKEUP\_STATE\_BACKUP\_NG Wakeup state is backup NG

RAM\_WAKEUP\_STATE\_BATTERY\_DOWN Wakeup state is battery down

### Return values:

None
------

### Precondition:

None

### Change in the internal status:

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

None

**See also:**[~RAM\\_AccessIf](#), CL\_LockMap, CL\_LockGet**RAM\_AccessIf::~~RAM\_AccessIf ()**

~

**Summary:**

Release the access permission to the system management information.

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

None

**See also:**[RAM\\_AccessIf](#), CL\_LockRelease**Member Function Documentation****E\_CWORD33\_Status RAM\_AccessIf::getRamInfo ([RAM\\_SM\\_INFO t](#) \* *p\_boot\_info*)****Summary:**

Read the system management information.

**Parameters:**

out	<i>p_boot_info</i>	<a href="#">RAM_SM_INFO t</a> * - Destination buffer to read the system management information.
-----	--------------------	---

[RAM\\_SM\\_INFO t](#) Structure body

```

typedef struct {
    char        signature_in[4];
    BOOL        isImmediateReset;
    BOOL        needRenotifyStartPrm;
    uint32_t    lastWakeupType;
    uint32_t    lastDramBackupStatus;
    uint32_t    lastResetStatus;
    char        productPrivate[RAM_PRODUCT_PRIVATE_MAX];
    char        order_name[SS_SM_ORDER_NAME_MAX];
    BOOL        isErrorReset;
    char        signature_out[4];
}RAM_SM_INFO t;

```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Reading success
<i>e_CWORD33_StatusFail</i>	Reading failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

Sync only(None communication)

**See also:**

[setRamInfo](#)

**E\_CWORD33\_Status RAM\_AccessIf::setRamInfo ([RAM\\_SM\\_INFO t](#) \* *p\_boot\_info*)**

**Summary:**

Write the system management information.

**Parameters:**

in	<i>p_boot_info</i>	<a href="#">RAM_SM_INFO t</a> * - Original buffer to write the system management information
----	--------------------	--

[RAM\\_SM\\_INFO t](#) Structure body

```

typedef struct {
    char        signature_in[4];
    BOOL        isImmediateReset;
    BOOL        needRenotifyStartPrm;
    uint32_t    lastWakeupType;
    uint32_t    lastDramBackupStatus;
    uint32_t    lastResetStatus;
    char        productPrivate[RAM_PRODUCT_PRIVATE_MAX];
    char        order_name[SS_SM_ORDER_NAME_MAX];
}

```

```
    BOOL      isErrorReset;  
    char      signature_out[4];  
};RAM_SM_INFO t;
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Write success
<i>e_CWORD33_StatusFail</i>	Write failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public

**Type**

Sync only(None communication)

**See also:**

[getRamInfo](#)

---

**The documentation for this class was generated from the following file:**

[ss\\_sm\\_ram\\_access.h](#)

## ROM\_AccessIf Class Reference

### [ROM\\_AccessIf](#)

```
#include <ss_sm_rom_access.h>
```

#### Public Member Functions

[ROM\\_AccessIf](#) ()

[~ROM\\_AccessIf](#) ()

E\_CWORD33\_Status [Initialize](#) ()

E\_CWORD33\_Status [SetProductPrivate](#) (UI\_8 buf[[ROM\\_PRODUCT\\_PRIVATE\\_MAX](#)])

E\_CWORD33\_Status [GetProductPrivate](#) (UI\_8 buf[[ROM\\_PRODUCT\\_PRIVATE\\_MAX](#)])

E\_CWORD33\_Status [SystemInitialize](#) ([DRAM\\_BACKUP\\_STATE](#) bkup\_state)

E\_CWORD33\_Status [GetBootMode](#) ([EBOOT\\_MODE](#) \*p\_boot\_mode)

E\_CWORD33\_Status [SetBootMode](#) ([EBOOT\\_MODE](#) boot\_mode)

E\_CWORD33\_Status [GetSignature](#) (UI\_32 \*p\_sig\_value)

E\_CWORD33\_Status [SetSignature](#) (UI\_32 sig\_value)

E\_CWORD33\_Status [SetActiveFlashloader](#) ([EACTIVE\\_FLASHLOADER](#) active\_flash\_loader)

E\_CWORD33\_Status [GetLastUserMode](#) ([EUSER\\_MODE](#) \*p\_user\_mode)

E\_CWORD33\_Status [SetLastUserMode](#) ([EUSER\\_MODE](#) user\_mode)

E\_CWORD33\_Status [GetTransportMode](#) ([ECONTROL\\_MODE](#) \*p\_control\_mode)

E\_CWORD33\_Status [SetTransportMode](#) ([ECONTROL\\_MODE](#) control\_mode)

E\_CWORD33\_Status [GetProductionMode](#) ([ECONTROL\\_MODE](#) \*p\_control\_mode)

E\_CWORD33\_Status [SetProductionMode](#) ([ECONTROL\\_MODE](#) control\_mode)

E\_CWORD33\_Status [GetLimpHomeCutOffReqMode](#) ([ECONTROL\\_MODE](#) \*p\_control\_mode)

E\_CWORD33\_Status [SetLimpHomeCutOffReqMode](#) ([ECONTROL\\_MODE](#) control\_mode)

E\_CWORD33\_Status [GetDataResetMode](#) ([EDATARESET\\_MODE](#) \*p\_data\_reset\_mode)

E\_CWORD33\_Status [GetDataResetModeFast](#) ([EDATARESET\\_MODE](#) \*p\_data\_reset\_mode)

E\_CWORD33\_Status [SetDataResetMode](#) ([EDATARESET\\_MODE](#) data\_reset\_mode)

E\_CWORD33\_Status [GetResetCount](#) (UI\_32 \*p\_reset\_count)

E\_CWORD33\_Status [SetResetCount](#) (UI\_32 reset\_count)

E\_CWORD33\_Status [GetLastIlgReset](#) ([ELASTILGRESET\\_MODE](#) \*p\_last\_ilg\_reset)

E\_CWORD33\_Status [SetLastIlgReset](#) ([ELASTILGRESET\\_MODE](#) last\_ilg\_reset)

E\_CWORD33\_Status [GetProgUpdateState](#) ([EPROGUPDATE\\_STATE](#) \*p\_prog\_update\_state)

E\_CWORD33\_Status [SetProgUpdateState](#) ([EPROGUPDATE\\_STATE](#) prog\_update\_state)

E\_CWORD33\_Status [GetErrLogCount](#) (UI\_32 \*p\_err\_log\_count)

E\_CWORD33\_Status [SetErrLogCount](#) (UI\_32 err\_log\_count)

E\_CWORD33\_Status [GetNextWakeupType](#) ([ENEXT\\_WAKEUP\\_TYPE](#) \*p\_next\_wakeup\_type)

E\_CWORD33\_Status [SetNextWakeupType](#) ([ENEXT\\_WAKEUP\\_TYPE](#) next\_wakeup\_type)

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#### Detailed Description

### [ROM\\_AccessIf](#)

#### Brief Introduction

Class to provide the function of ROM AccessIf

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## Constructor & Destructor Documentation

### ROM\_AccessIf::ROM\_AccessIf ()

**Summary:**

Obtain the access permission to SYS area (secondary storage area).

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>None</i>	
-------------	--

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

None

**See also:**

[~ROM\\_AccessIf](#), CL\_LockMap, CL\_LockGet

### ROM\_AccessIf::~~ROM\_AccessIf ()

~

**Summary:**

Release the access permission to SYS area (secondary storage area).

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>None</i>	
-------------	--

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

None

**See also:**[ROM\\_AccessIf](#), [CL\\_LockRelease](#)**Member Function Documentation****E\_CWORD33\_Status ROM\_AccessIf::GetBootMode ([EBOOT\\_MODE](#) \* *p\_boot\_mode*)****Summary:**

Get boot mode information.

**Parameters:**

out	<i>p_boot_mode</i>	EBOOT_MODE* - Destination buffer to store information of boot mode.
-----	--------------------	---

EBOOT\_MODE  
APPLICATION\_MODE  
PROGRAMMING\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**[SetBootMode](#)



**E\_CWORD33\_Status ROM\_AccessIf::GetDataResetMode (EDATARESET\_MODE \*  
p\_data\_reset\_mode)**

**Summary:**

Get reserved data reset mode information.

**Parameters:**

out	<i>p_data_reset_mode</i>	EDATARESET_MODE* - Destination buffer to store information of reserved data reset mode.
-----	--------------------------	---

EDATARESET\_MODE  
DATARESET\_NONE  
DATARESET\_USER  
DATARESET\_FACTORY

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetDataResetMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetDataResetModeFast (EDATARESET\_MODE \*  
p\_data\_reset\_mode)**

**Summary:**

Get reserved data reset mode information faster.This api can get correct value before calling SetDataResetMode.So it should be used only immediately after boot.

**Parameters:**

out	<i>p_data_reset_mode</i>	EDATARESET_MODE* - Destination buffer to store information of reserved data reset mode faster.
-----	--------------------------	--

EDATARESET\_MODE

DATARESET\_NONE  
DATARESET\_USER  
DATARESET\_FACTORY

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetDataResetMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetErrLogCount (UI\_32 \* *p\_err\_log\_count*)**

**Summary:**

Get error logging count information.

**Parameters:**

out	<i>p_err_log_count</i>	UI_32* - Destination buffer to store information of error logging count.
-----	------------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetErrLogCount](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetLastIlgReset (ELASTILGRESET\_MODE \* p\_last\_ilg\_reset)**

**Summary:**

Get last illegal reset information.

**Parameters:**

out	<i>p_last_ilg_reset</i>	ELASTILGRESET_MODE* - Destination buffer to store information of last illegal reset.
-----	-------------------------	--

ELASTILGRESET\_MODE  
LAST\_ILGRESET\_NORMAL  
LAST\_ILGRESET\_NG

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetLastIlgReset](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetLastUserMode (EUSER\_MODE \* p\_user\_mode)**

**Summary:**

Get last user mode information.

**Parameters:**

out	<i>p_user_mode</i>	EUSER_MODE* - Destination buffer to store information of user mode.
-----	--------------------	---

EUSER\_MODE

USER\_ON  
USER\_OFF

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetLastUserMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetLimpHomeCutOffReqMode ([ECONTROL\\_MODE](#) \*  
*p\_control\_mode*)**

**Summary:**

Get limp home cut off request mode information.

**Parameters:**

out	<i>p_control_mode</i>	ECONTROL_MODE* - Destination buffer to store information of limp home cut off request mode.
-----	-----------------------	---

ECONTROL\_MODE  
DISABLE\_MODE  
ENABLE\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**[SetLimpHomeCutOffReqMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetNextWakeupType ([ENEXT\\_WAKEUP\\_TYPE](#) \*  
*p\_next\_wakeup\_type*)**

**Summary:**

Get next wakeup type information.

**Parameters:**

out	<i>p_next_wakeup_type</i>	ENEXT_WAKEUP_TYPE* - Destination buffer to store information of next wakeup type.
-----	---------------------------	---

ENEXT\_WAKEUP\_TYPE  
NEXT\_WAKEUP\_TYPE\_NONE  
NEXT\_WAKEUP\_TYPE\_COLD  
NEXT\_WAKEUP\_TYPE\_HOT

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**[SetNextWakeupType](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetProductionMode ([ECONTROL\\_MODE](#) \*  
*p\_control\_mode*)**

**Summary:**

Get production mode information.

**Parameters:**

out	<i>p_control_mode</i>	ECONTROL_MODE* - Destination buffer to store information of production mode.
-----	-----------------------	--

ECONTROL\_MODE  
DISABLE\_MODE  
ENABLE\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetProductionMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetProductPrivate (UI\_8  
*buf*[ROM\_PRODUCT\_PRIVATE\_MAX])**

**Summary:**

Read the data information depending on the product specification from the secondary storage area.

**Parameters:**

out	<i>buf</i> [ROM_PRODUCT_PRIVATE_MAX]	UI_8[] - Storing destination of data information depending on the product specification
-----	--------------------------------------	---

Definition of ROM\_PRODUCT\_PRIVATE\_MAX  
#define ROM\_PRODUCT\_PRIVATE\_MAX 128

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetProductPrivate](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetProgUpdateState ([EPROGUPDATE\\_STATE](#) \*  
*p\_prog\_update\_state*)**
**Summary:**

Get program update status information.

**Parameters:**

out	<i>p_prog_update_state</i>	EPROGUPDATE_STATE* - Destination buffer to store information of program update status.
-----	----------------------------	--

```
typedef uint32_t EPROGUPDATE_STATE
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetProgUpdateState](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetResetCount (UI\_32 \* *p\_reset\_count*)**

**Summary:**

Get reset count information.

**Parameters:**

out	<i>p_reset_count</i>	UI_32* - Destination buffer to store information of reset count.
-----	----------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetResetCount](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetSignature (UI\_32 \* *p\_sig\_value*)**

**Summary:**

Get signature information.

**Parameters:**

out	<i>p_sig_value</i>	UI_32 - Destination buffer to store signature information
-----	--------------------	---

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**



The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetSignature](#)

**E\_CWORD33\_Status ROM\_AccessIf::GetTransportMode (ECONTROL\_MODE \*  
p\_control\_mode)**

**Summary:**

Get transport mode information.

**Parameters:**

out	<i>p_control_mode</i>	ECONTROL_MODE* - Destination buffer to store information of transport mode.
-----	-----------------------	---

ECONTROL\_MODE  
DISABLE\_MODE  
ENABLE\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[SetTransportMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::Initialize ()**

**Summary:**

Synchronize SYS area (secondary storage area) and the mirror data in DRAM

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Synchronization success
<i>e_CWORD33_StatusFail</i>	Synchronization failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

EL\_mem\_exram\_mmap

**E\_CWORD33\_Status ROM\_AccessIf::SetActiveFlashloader ([EACTIVE\\_FLASHLOADER](#)  
*active\_flash\_loader*)**
**Summary:**

Set active flash loader information.

**Parameters:**

in	<i>active_flash_loader</i>	EACTIVE_FLASHLOADER - Active flash loader information which write to secondary storage area.
----	----------------------------	--

EBOOT\_MODE  
 APPLICATION\_MODE  
 PROGRAMMING\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetBootMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetBootMode ([EBOOT\\_MODE](#) *boot\_mode*)****Summary:**

Set boot mode information.

**Parameters:**

in	<i>boot_mode</i>	EBOOT_MODE - Boot mode information which write to the secondary storage area.
----	------------------	---

EBOOT\_MODE  
APPLICATION\_MODE  
PROGRAMMING\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetBootMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetDataResetMode ([EDATARESET\\_MODE](#) *data\_reset\_mode*)****Summary:**

Set reserve data reset mode information.

**Parameters:**

in	<i>data_reset_mode</i>	EDATARESET_MODE - Reserve data reset mode information which write to the secondary storage
----	------------------------	--

		area.
--	--	-------

EDATARESET\_MODE  
 DATARESET\_NONE  
 DATARESET\_USER  
 DATARESET\_FACTORY

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetDataResetMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetErrLogCount (UI\_32 *err\_log\_count*)**

**Summary:**

Get error logging count information.

**Parameters:**

out	<i>err_log_count</i>	UI_32* - Destination buffer to store information of error logging count.
-----	----------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetErrLogCount](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetLastIlgReset ([ELASTILGRESET\\_MODE](#) *last\_ilg\_reset*)****Summary:**

Set last illegal reset information.

**Parameters:**

in	<i>last_ilg_reset</i>	ELASTILGRESET_MODE - Last illegal reset information which write to the secondary storage area.
----	-----------------------	--

ELASTILGRESET\_MODE  
LAST\_ILGRESET\_NORMAL  
LAST\_ILGRESET\_NG

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetLastIlgReset](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetLastUserMode ([EUSER\\_MODE](#) *user\_mode*)****Summary:**

Set last user mode information.

**Parameters:**

in	<i>user_mode</i>	EUSER_MODE - User mode information which write to the secondary storage area.
----	------------------	---

EUSER\_MODE  
USER\_ON  
USER\_OFF

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetLastUserMode](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetLimpHomeCutOffReqMode ([ECONTROL\\_MODE control\\_mode](#))**

**Summary:**

Set limp home cut off request mode information.

**Parameters:**

in	<i>control_mode</i>	ECONTROL_MODE - Limp home cut off request mode information which write to the secondary storage area.
----	---------------------	---

ECONTROL\_MODE  
DISABLE\_MODE  
ENABLE\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**[GetLimpHomeCutOffReqMode](#)**E\_CWORD33\_Status ROM\_AccessIf::SetNextWakeupType ([ENEXT\\_WAKEUP\\_TYPE](#) *next\_wakeup\_type*)****Summary:**

Get next wakeup type information.

**Parameters:**

out	<i>next_wakeup_type</i>	ENEXT_WAKEUP_TYPE* - Destination buffer to store information of next wakeup type.
-----	-------------------------	---

ENEXT\_WAKEUP\_TYPE  
NEXT\_WAKEUP\_TYPE\_NONE  
NEXT\_WAKEUP\_TYPE\_COLD  
NEXT\_WAKEUP\_TYPE\_HOT

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**[GetNextWakeupType](#)

## E\_CWORD33\_Status ROM\_AccessIf::SetProductionMode ([ECONTROL\\_MODE](#) *control\_mode*)

### Summary:

Set transport mode information.

### Parameters:

in	<i>control_mode</i>	ECONTROL_MODE - Production mode information which write to the secondary storage area.
----	---------------------	--

ECONTROL\_MODE  
DISABLE\_MODE  
ENABLE\_MODE

### Return values:

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

### Precondition:

None

### Change in the internal status:

The change in the internal status does not occur by this API.

### Classification:

Public english

### Type

Sync only(None communication)

### See also:

[GetProductionMode](#)

## E\_CWORD33\_Status ROM\_AccessIf::SetProductPrivate (UI\_8 *buf*[ROM\_PRODUCT\_PRIVATE\_MAX])

### Summary:

Write data information depending on the product specification to the secondary storage area.

### Parameters:

in	<i>buf</i> [ROM_PRODUCT_PRIVATE_MAX]	UI_8[] - Data information depending on the product specification
----	--------------------------------------	--

Definition of ROM\_PRODUCT\_PRIVATE\_MAX  
#define ROM\_PRODUCT\_PRIVATE\_MAX 128



**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetProductPrivate](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetProgUpdateState ([EPROGUPDATE\\_STATE](#)  
*prog\_update\_state*)**
**Summary:**

Set program update status information.

**Parameters:**

in	<i>prog_update_state</i>	EPROGUPDATE_STATE - Program update status information which write to the secondary storage area.
----	--------------------------	--

```
typedef uint32_t EPROGUPDATE_STATE
```

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetProgUpdateState](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetResetCount (UI\_32 *reset\_count*)**

**Summary:**

Set reset count information.

**Parameters:**

in	<i>reset_count</i>	UI_32 - Reset count information which write to the secondary storage area.
----	--------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetResetCount](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetSignature (UI\_32 *sig\_value*)**

**Summary:**

Set signature information.

**Parameters:**

in	<i>sig_value</i>	UI_32 - Signature information which write to the secondary storage area.
----	------------------	--

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetSignature](#)

**E\_CWORD33\_Status ROM\_AccessIf::SetTransportMode ([ECONTROL\\_MODE](#) *control\_mode*)****Summary:**

Set transport mode information.

**Parameters:**

in	<i>control_mode</i>	ECONTROL_MODE - Transport mode information which write to the secondary storage area.
----	---------------------	---

ECONTROL\_MODE  
DISABLE\_MODE  
ENABLE\_MODE

**Return values:**

<i>e_CWORD33_StatusOK</i>	Success
<i>e_CWORD33_StatusFail</i>	Failed

**Precondition:**

None

**Change in the internal status:**

The change in the internal status does not occur by this API.

**Classification:**

Public english

**Type**

Sync only(None communication)

**See also:**

[GetTransportMode](#)

## E\_CWORD33\_Status ROM\_AccessIf::SystemInitialize ([DRAM BACKUP STATE](#) *bkup\_state*)

### Summary:

Initialize the handles used for ROM access.

### Parameters:

in	<i>bkup_state</i>	
----	-------------------	--

DRAM\_BACKUP\_STATE  
DRAM\_BACKUP\_STATE\_OK  
DRAM\_BACKUP\_STATE\_NG

### Return values:

<i>e_CWORD33_StatusOK</i>	Initialize the handles used for ROM access success
<i>e_CWORD33_StatusFail</i>	Initialize the handles used for ROM access failed

### Precondition:

None

### Change in the internal status:

The change in the internal status does not occur by this API.

### Classification:

Public english

### Type

Sync only(None communication)

### See also:

EL\_mem\_exram\_mmap

---

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

[ss\\_sm\\_rom\\_access.h](#)

## T\_SS\_SM\_INIT\_HOOK Struct Reference

Version up mode, Callback function.

```
#include <ss_system_manager_conf.h>
```

### Public Attributes

BOOL [blsVupMode](#)

*Version up mode.*

E\_CWORD33\_Status(\* [cbRebootNoticeFunc](#))(HANDLE hApp)

*Call back function.*

---

### Detailed Description

Version up mode, Callback function.

---

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

[ss\\_system\\_manager\\_conf.h](#)

## T\_SS\_SM\_START\_DataStruct Struct Reference

```
#include <ss_system_manager_if.h>
```

### Public Member Functions

[T\\_SS\\_SM\\_START\\_DataStruct](#) ()

[T\\_SS\\_SM\\_START\\_DataStruct](#) (EPWR\_WAKEUP\_FACTOR\_TYPE f\_startupReason, BOOL f\_isUserModeOn, [ESMDataResetModelInfo](#) f\_dataResetMode, EPWR\_SC\_SECURITY\_STATUS f\_securityStatus, EPWR\_SC\_WAKEUP\_TYPE f\_wakeupType, [ESMDramBackupStatus](#) f\_dramBackupStatus, [ESMResetStatus](#) f\_resetStatus, UI\_32 f\_resetCount)

### Public Attributes

EPWR\_WAKEUP\_FACTOR\_TYPE **startupReason**

BOOL **isUserModeOn**

[ESMDataResetModelInfo](#) **dataResetMode**

EPWR\_SC\_SECURITY\_STATUS **securityStatus**

EPWR\_SC\_WAKEUP\_TYPE **wakeupType**

[ESMDramBackupStatus](#) **dramBackupStatus**

[ESMResetStatus](#) **resetStatus**

UI\_32 **errResetCount**

---

### Detailed Description

Parameters of the following message.

SS\_SM\_START '\_CWORD33\_OnStart'/'evStart'

SS\_SM\_PRE\_START '\_CWORD33\_OnPreStart'/'evPreStart'

SS\_SM\_BACKGROUND\_START '\_CWORD33\_OnBackgroundStart'/'evBackgroundStart'

---

### Constructor & Destructor Documentation

**T\_SS\_SM\_START\_DataStruct::T\_SS\_SM\_START\_DataStruct ()**[inline]

Constructor

**T\_SS\_SM\_START\_DataStruct::T\_SS\_SM\_START\_DataStruct** (EPWR\_WAKEUP\_FACTOR\_TYPE *f\_startupReason*, BOOL *f\_isUserModeOn*, [ESMDataResetModelInfo](#) *f\_dataResetMode*, EPWR\_SC\_SECURITY\_STATUS *f\_securityStatus*, EPWR\_SC\_WAKEUP\_TYPE *f\_wakeupType*, [ESMDramBackupStatus](#) *f\_dramBackupStatus*, [ESMResetStatus](#) *f\_resetStatus*, UI\_32 *f\_resetCount*)[inline]

Constructor

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

59 [ss\\_system\\_manager\\_if.h](#)

## T\_SS\_SM\_UserModeOnOffNotification\_Struct Struct Reference

```
#include <ss_system_manager_if.h>
```

### Public Member Functions

**T\_SS\_SM\_UserModeOnOffNotification\_Struct** (BOOL f\_bUserMode,  
EPWR\_WAKEUP\_FACTOR\_TYPE f\_startupReason, EPWR\_USER\_MODE\_CHANGE\_REASON\_TYPE  
f\_changeReason)

### Public Attributes

BOOL **isUserModeOn**

EPWR\_WAKEUP\_FACTOR\_TYPE **startupReason**

EPWR\_USER\_MODE\_CHANGE\_REASON\_TYPE **userModeChangeReason**

---

### Detailed Description

Data passed in the NTFY\_SSSystemMgrPowerOnOff and \* NTFY\_SSSystemMgrUserMode notification messages \*

---

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

60 [ss\\_system\\_manager\\_if.h](#)



## T\_SystemManagerCpuResetInfo Struct Reference

CPU Reset Info.

```
#include <ss_system_manager_if.h>
```

### Public Attributes

[ESMCpuResetReason](#) **resetReason**

CHAR **messageStr** [SS\_SM\_RESET\_MSG\_STR\_SIZE]

CHAR **suffixStr** [SS\_SM\_SUFFIX\_STR\_SIZE]

---

### Detailed Description

CPU Reset Info.

---

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

61 [ss\\_system\\_manager\\_if.h](#)

## Timer Class Reference

[Timer.](#)

```
#include <ss_system_timer.h>
```

### Public Member Functions

[Timer](#) ()

[Timer](#) (HANDLE hdl, UI\_32 id, CbFuncPtr CbFn)

virtual [~Timer](#) ()

BOOL [Initialize](#) (HANDLE hApp, UI\_32 id, CbFuncPtr CbFn)

void [Reinitialize](#) (UI\_32 id)

void [Shutdown](#) ()

BOOL [SetTime](#) (UI\_32 ss, UI\_32 sms, UI\_32 rs, UI\_32 rms)

BOOL [Start](#) (UI\_32 ss, UI\_32 sms, UI\_32 rs, UI\_32 rms)

BOOL [Start](#) ()

BOOL [Stop](#) ()

---

### Detailed Description

[Timer.](#)

### Brief Introduction

Class to provide [Timer](#) function

---

### Constructor & Destructor Documentation

**Timer::Timer** ()

#### Summary

Default constructor of [Timer](#) class.

#### Parameters:

<i>None</i>	
-------------	--

#### Return values:

<i>None</i>	
-------------	--

#### Preconditions

None.

#### Change of the internal state

The internal state is not changed.

**Classification**

Public

**Type**

sync only

**See also:**[~Timer](#), [Initialize](#)**Timer::Timer (HANDLE *hdl*, UI\_32 *id*, CbFuncPtr *CbFn*)****Summary**Constructor of [Timer](#) class.**Parameters:**

in	<i>hdl</i>	HANDLE - HANDLE for Application
in	<i>id</i>	UI_32 - <a href="#">Timer</a> ID corresponding to the callback function
in	<i>CbFn</i>	CbFuncPtr - Pointer to a callback function to be called when the timer expires

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

Generation/initialization of Dispatcher for the Application  
 (\_CWORD33\_CreateDispatcherWithoutLoop etc) has been done.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**[~Timer](#), [Initialize](#)**virtual Timer::~~Timer ()[virtual]**

~

**Summary**Destructor of [Timer](#) class.**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>None</i>	
-------------	--

**Preconditions**

None.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

None

**See also:**

[Timer](#)

**Member Function Documentation****BOOL Timer::Initialize (HANDLE *hApp*, UI\_32 *id*, CbFuncPtr *CbFn*)****Summary**

Initialization of the [Timer](#) class.

**Parameters:**

in	<i>hApp</i>	HANDLE - HANDLE for Application
in	<i>id</i>	UI_32 - <a href="#">Timer</a> ID corresponding to the callback function
in	<i>CbFn</i>	CbFuncPtr - Pointer to a callback function to be called when the timer expires

**Return values:**

<i>TRUE</i>	Initialization success
<i>FALSE</i>	Initialization failed

**Preconditions**

Generation/initialization of Dispatcher for the Application  
(`_CWORD33_CreateDispatcherWithoutLoop` etc) has been done.

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(No communication)

**See also:**[~Timer](#), [Shutdown](#)**void Timer::Reinitialize (UI\_32 *id*)**62 [Initialize\(\)](#)63 **Summary**

Reinitialize the timer by specifying a timer value information

64 **Parameters:**

in	<i>id</i>	UI_32 - timer id that you want to reinitialize
----	-----------	--

65 **Return values:**

<i>None</i>	
-------------	--

66 **Preconditions**That has been initialized in the [Initialize\(\)](#).67 **Change of the internal state**

set m\_tTi.iCmd with *id*  
 using the result of function McOpenSender(\_CWORD33\_GetAppName(m\_hApp)) to  
 set m\_hSnd  
 create a timer and give the handle to m\_hTmr  
 set m\_bInIt with TRUE

68 **Classification**

Public

69 **Type**

Method only

70 **Detail**Reinitialize the timer by specifying a timer value information,  
create a new timer if it is not initialize.71 **See also:**[Initialize](#)

72

## BOOL Timer::SetTime (UI\_32 *ss*, UI\_32 *sms*, UI\_32 *rs*, UI\_32 *rms*)

### Summary

Set the timer value information.

### Parameters:

in	<i>ss</i>	UI_32 - Timeout expiration time(sec)
in	<i>sms</i>	UI_32 - Timeout expiration time(nano sec)
in	<i>rs</i>	UI_32 - Timeout expiration time at the time of repeat(sec)
in	<i>rms</i>	UI_32 - Timeout expiration time at the time of repeat(nano sec)

### Return values:

<i>TRUE</i>	Setting success
<i>FALSE</i>	Setting failed

### Preconditions

That has been initialized in the [Initialize\(\)](#).

### Change of the internal state

The internal state is not changed.

### Classification

Public

### Type

Sync only(None communication)

### See also:

[Timer](#)

## void Timer::Shutdown ()

### Summary

The end of the [Timer](#) class.

### Parameters:

<i>None</i>	
-------------	--

### Return values:

<i>None</i>	
-------------	--

### Preconditions

That has been initialized in the [Initialize\(\)](#).

### Change of the internal state

The internal state is not changed.

**Classification**

Public

**Type**

Sync only(None communication)

**See also:**

[Timer](#), [Initialize](#)

**BOOL Timer::Start (UI\_32 *ss*, UI\_32 *sms*, UI\_32 *rs*, UI\_32 *rms*)**

**Summary**

The start of the timer by specifying a timer value information.

**Parameters:**

in	<i>ss</i>	UI_32 - Timeout expiration time(sec)
in	<i>sms</i>	UI_32 - Timeout expiration time(nano sec)
in	<i>rs</i>	UI_32 - Timeout expiration time at the time of repeat(sec)
in	<i>rms</i>	UI_32 - Timeout expiration time at the time of repeat(nano sec)

**Return values:**

<i>TRUE</i>	Stop success
<i>FALSE</i>	Stop failed

**Preconditions**

That has been initialized in the [Initialize\(\)](#).

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Method only

**See also:**

[Stop](#)

**BOOL Timer::Start ()**

**Summary**

Stop the timer.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>TRUE</i>	Stop success
<i>FALSE</i>	Stop failed

**Preconditions**

That has been initialized in the [Initialize\(\)](#).  
Set the timeout value in [SetTime\(\)](#).

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Method only

**See also:**

[SetTime](#), [Stop](#)

**BOOL Timer::Stop ()****Summary**

Stop the timer.

**Parameters:**

<i>None</i>	
-------------	--

**Return values:**

<i>TRUE</i>	Stop success
<i>FALSE</i>	Stop failed

**Preconditions**

That has been initialized in the [Initialize\(\)](#).  
The timer has been started

**Change of the internal state**

The internal state is not changed.

**Classification**

Public

**Type**

Method only



**See also:**

[Start](#)

---

**The documentation for this class was generated from the following file:**

73 [ss\\_system\\_timer.h](#)

## TimerCtrl Class Reference

OSprocess.

```
#include <ss_system_timer.h>
```

### Public Member Functions

[TimerCtrl](#) ()

[TimerCtrl](#) (UI\_32 ntimers)

VOID [Initialize](#) (HANDLE hApp)

VOID [Shutdown](#) ()

UI\_32 [CreateTimer](#) (CbFuncPtr CbFn)

UI\_32 [DeleteTimer](#) (UI\_32 id)

UI\_32 [SetTimer](#) (UI\_32 id, UI\_32 ss, UI\_32 sms, UI\_32 rs, UI\_32 rms)

UI\_32 [StartTimer](#) (UI\_32 id, UI\_32 ss, UI\_32 sms, UI\_32 rs, UI\_32 rms)

UI\_32 [StartTimerMulti](#) (UI\_32 id, UI\_32 ss, UI\_32 sms, UI\_32 rs, UI\_32 rms, UI\_32 subId)

UI\_32 [StartTimer](#) (UI\_32 id)

UI\_32 [StopTimer](#) (UI\_32 id)

---

### Detailed Description

OSprocess.

[TimerCtrl](#).

### Brief Introduction

This class is the System Manager OS process abstraction.

### Brief Introduction

Class to provide [TimerCtrl](#) function

---

### Constructor & Destructor Documentation

#### TimerCtrl::TimerCtrl ()

##### Summary

Default Constructor, called when the class is instantiated.

##### Parameters:

<i>None</i>	
-------------	--

##### Return values:

<i>None</i>	
-------------	--

##### Preconditions

### Change of the internal state

set m\_hApp as NULLm\_nTimersMax as DEFAULT\_NTIMERS

#### Classification

Public

#### Type

sync only

#### See also:

~TimerCtrl, [Initialize](#)

### TimerCtrl::TimerCtrl (UI\_32 *ntimers*)

#### Summary

Constructor, called when the class is instantiated.

#### Parameters:

in	<i>ntimers</i>	UI_32 - number of timers objects in the pool
----	----------------	--

#### Return values:

<i>None</i>	
-------------	--

#### Preconditions

### Change of the internal state

initialize var m\_hApp and m\_nTimersMax

#### Classification

Public

#### Type

sync only

#### See also:

~TimerCtrl, [Initialize](#)

---

### Member Function Documentation

#### UI\_32 TimerCtrl::CreateTimer (CbFuncPtr *CbFn*)

#### Summary

get a timer control from pool

#### Parameters:

in	<i>CbFn</i>	CbFn - Pointer to a callback function to be called when the timer expires
----	-------------	---

**Return values:**

<a href="#">Timer</a>	id - If id is in m_aTimers
0	- If id is not in m_aTimers

**Preconditions**

That has been initialized in the [Initialize\(\)](#).

**Change of the internal state**

insert one [Timer](#) to m\_rTimers

**Classification**

Public

**Type**

sync only

**See also:**

[DeleteTimer](#)

**UI\_32 TimerCtrl::DeleteTimer (UI\_32 *id*)****Summary**

delete a timer from m\_rTimers using the param.

**Parameters:**

in	<i>id</i>	UI_32 - timer id that you want to delete
----	-----------	--

**Return values:**

<a href="#">Timer</a>	id -If id is in m_aTimers
0	- If id is not in m_aTimers

**Preconditions**

That has been initialized in the [Initialize\(\)](#).

**Change of the internal state**

delete one [Timer](#) to m\_rTimers that id is the param.  
and put id of the timer into m\_aTimers.

**Classification**

Public

**Type**

sync only

**See also:**

[CreateTimer](#)

## VOID TimerCtrl::Initialize (HANDLE *hApp*)

### Summary

Initialize the class after instantiation.

### Parameters:

in	<i>hApp</i>	HANDLE - HANDLE to you applications <i>hApp</i> .
----	-------------	---

### Return values:

<i>None</i>	
-------------	--

### Preconditions

### Change of the internal state

initialize var *m\_hApp* and *m\_aTimers*

### Classification

Public

### Type

sync only

### See also:

~TimerCtrl, [Initialize](#)

## UI\_32 TimerCtrl::SetTimer (UI\_32 *id*, UI\_32 *ss*, UI\_32 *sms*, UI\_32 *rs*, UI\_32 *rms*)

### Summary

Sets the timer timeout values

### Parameters:

in	<i>id</i>	UI_32 - timer id that you want to set
in	<i>ss</i>	UI_32 - Start time in seconds
in	<i>sms</i>	UI_32 - Start time in milliseconds
in	<i>rs</i>	UI_32 - Repeat time in seconds
in	<i>rms</i>	UI_32 - Repeat time in milliseconds

### Return values:

<a href="#">Timer</a>	<i>id</i> - If <i>id</i> is in <i>m_aTimers</i>
<i>0</i>	- If <i>id</i> is not in <i>m_aTimers</i>

### Preconditions

That has been initialized in the [Initialize\(\)](#).

### Change of the internal state

set the timer infomation in *m\_rTimers* with *ss*, *sms*, *rs*, *rms*

**Classification**

Public

**Type**

sync only

**See also:****VOID TimerCtrl::Shutdown ()****Summary**

handle something when shut down timer control.

**Parameters:**

None	
------	--

**Return values:**

None	
------	--

**Preconditions**That has been initialized in the [Initialize\(\)](#)..**Change of the internal state**

Clear m\_aTimer,shut down timer in m\_rTimer and delete it.clear m\_rTimer.

**Classification**

Public

**Type**

sync only

**See also:**~TimerCtrl, [Initialize](#)**UI\_32 TimerCtrl::StartTimer (UI\_32 id, UI\_32 ss, UI\_32 sms, UI\_32 rs, UI\_32 rms)****Summary**

Sets the timer timeout values and starts the timer.

**Parameters:**

in	<i>id</i>	UI_32 - timer id that you want to start
in	<i>ss</i>	UI_32 - Timeout expiration time(sec)
in	<i>sms</i>	UI_32 - Timeout expiration time(nano sec)
in	<i>rs</i>	UI_32 - Timeout expiration time at the time of repeat(sec)
in	<i>rms</i>	UI_32 - Timeout expiration time at the time of repeat(nano sec)

**Return values:**

<a href="#">Timer</a>	id - If id is in m_aTimers
0	- If id is not in m_aTimers

**Preconditions**

That has been initialized in the [Initialize\(\)](#).

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

Stop

**UI\_32 TimerCtrl::StartTimer (UI\_32 id)****Summary**

Start the timer.

**Parameters:**

in	<i>id</i>	UI_32 - timer id that you want to start
----	-----------	---

**Return values:**

<a href="#">Timer</a>	id - If id is in m_aTimers
0	- If id is in not m_aTimers

**Preconditions**

That has been initialized in the [Initialize\(\)](#).

Set the timeout value in [SetTimer\(\)](#).

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

SetTime, Stop

## UI\_32 TimerCtrl::StartTimerMulti (UI\_32 *id*, UI\_32 *ss*, UI\_32 *sms*, UI\_32 *rs*, UI\_32 *rms*, UI\_32 *subId*)

### Summary

The start of the timer by specifying a timer value information and reinitialize timer id.

### Parameters:

in	<i>id</i>	UI_32 - timer id that you want to start
in	<i>ss</i>	UI_32 - Timeout expiration time(sec)
in	<i>sms</i>	UI_32 - Timeout expiration time(nano sec)
in	<i>rs</i>	UI_32 - Timeout expiration time at the time of repeat(sec)
in	<i>rms</i>	UI_32 - Timeout expiration time at the time of repeat(nano sec)
in	<i>subId</i>	UI_32 - using subId to reinitialize timer id

### Return values:

<a href="#">Timer</a>	id - If id is in m_aTimers
0	- If id is not in m_aTimers

### Preconditions

That has been initialized in the [Initialize\(\)](#).

### Change of the internal state

None

### Classification

Public

### Type

sync only

### See also:

Stop

## UI\_32 TimerCtrl::StopTimer (UI\_32 *id*)

### Summary

Stop the timer.

### Parameters:

in	<i>id</i>	UI_32 - timer id that you want to stop
----	-----------	--

### Return values:

<a href="#">Timer</a>	id - If id is in m_aTimers
0	- If id is not in m_aTimers



**Preconditions**

That has been initialized in the [Initialize\(\)](#).  
Set the timeout value in [SetTimer\(\)](#).

**Change of the internal state**

None

**Classification**

Public

**Type**

sync only

**See also:**

[SetTimer](#), [StartTimer](#)

---

**The documentation for this class was generated from the following file:**

[ss\\_system\\_timer.h](#)

## TSKM\_DATAINIT\_t Struct Reference

### Public Attributes

TSKM\_DATAINIT\_TYPE\_t **type**

E\_CWORD33\_Status(\* **onComplnit** )(HANDLE hApp)

---

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

[tskm\\_type.h](#)

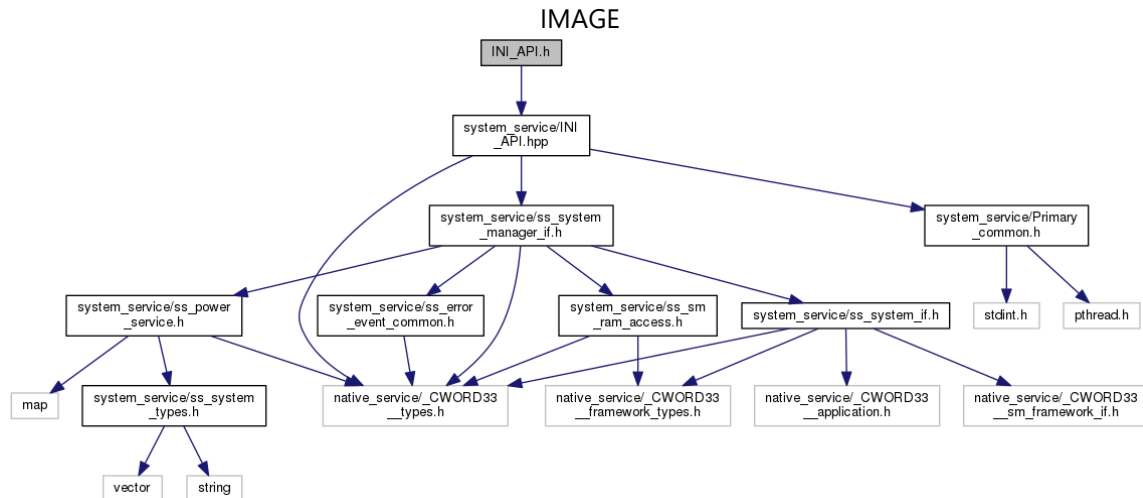
# File Documentation

## INI\_API.h File Reference

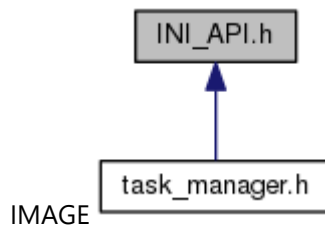
This file include [INI\\_API.hpp](#).

```
#include "system_service/INI_API.hpp"
```

Include dependency graph for INI\_API.h:



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



---

### Detailed Description

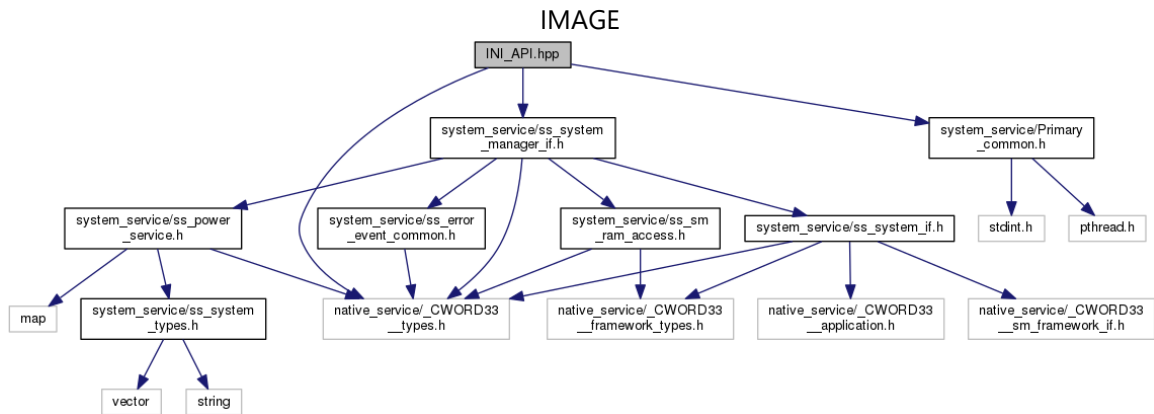
This file include [INI\\_API.hpp](#).

## INI\_API.hpp File Reference

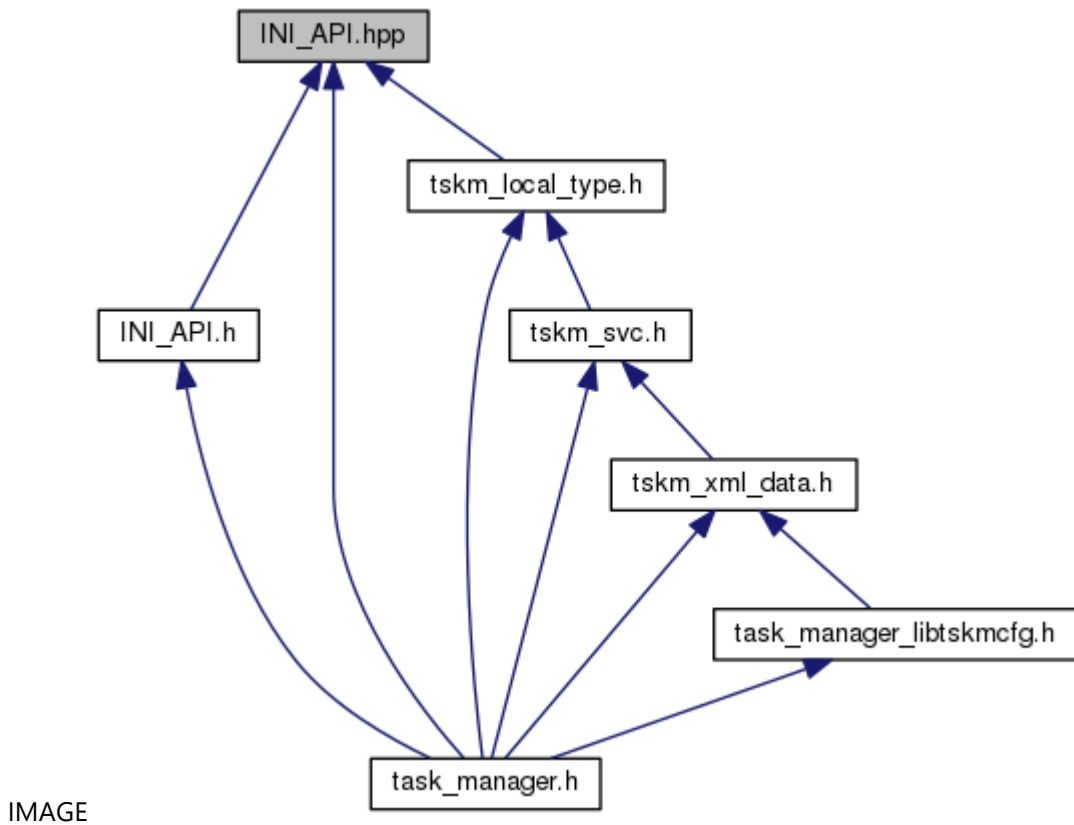
This file provide api to operating INI.

```
#include <native_service/_CWORD33_types.h>
#include <system_service/ss_system_manager_if.h>
#include "system_service/Primary_common.h"
```

Include dependency graph for INI\_API.hpp:



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



## Classes

```
struct T\_PRIM\_PRM  
struct T\_PRIM\_MONITOR\_PRM
```

## Macros

```
#define INI_SUCCESS 0 /* */  
#define INI_FALSE -1 /* */  
#define INI_FD_MAX 3  
#define INI_INITCOMP_NONE 0x0000000000000000LLU  
#define INI_INITCOMP_ON_START 0x0000000000000001LLU /* ON_START */  
#define INI_INITCOMP_NVM_ACCESS 0x0000000000000002LLU /* NVM ACCESS */  
#define INI_INITCOMP_TEST0 0x1000000000000000LLU /* TEST */  
#define INI_INITCOMP_TEST1 0x2000000000000000LLU /* TEST */  
#define INI_INITCOMP_TEST2 0x4000000000000000LLU /* TEST */  
#define INI_INITCOMP_TEST3 0x8000000000000000LLU /* TEST */  
#define INI_TERMCOMP_NONE 0x0000000000000000LLU  
#define INI_TERMCOMP_ACTIVITYMGR 0x0000000000000001LLU /* ActivityManager */  
#define INI_TERMCOMP_RESIDENT 0x0000000000000002LLU /* SVC */  
#define INI_TERMCOMP_TRANSIENT 0x0000000000000004LLU /* SVC */  
#define INI_TERMCOMP_TEST0 0x1000000000000000LLU /* TEST */  
#define INI_TERMCOMP_TEST1 0x2000000000000000LLU /* TEST */  
#define INI_TERMCOMP_TEST2 0x4000000000000000LLU /* TEST */  
#define INI_TERMCOMP_TEST3 0x8000000000000000LLU /* TEST */  
#define INI_DEBUGDUMP(args...) \_INI\_DEBUGDUMP(TRUE, ## args)  
#define INI_DEBUGDUMP_RAW(args...) \_INI\_DEBUGDUMP(FALSE, ## args)
```

## Typedefs

```
typedef struct T\_PRIM\_PRM T_PRIM_PRM
```

## Functions

```
int INI\_Main (T\_PRIM\_PRM *p_prm, int argc, char *argv[])  
void INI\_ExitStart (void *rsv)  
void INI\_ExitDone (int status)  
void * INI\_GetPrivate ()  
void * INI\_GetHandle ()  
int32_t INI\_SetMonitorTimeout (uint32_t timeout)  
int32_t INI\_StepForkComp (uint64_t compld)  
int32_t INI\_AccOffComp (uint64_t compld)  
int32_t INI\_GetBootInfo (T\_SS\_SM\_START\_DataStructType *info)  
int32_t INI\_GetExtBootInfo (T\_SS\_SM\_START\_ExtDataStructType *info)  
int32_t INI\_Init (T\_PRIM\_PRM *p_prm, int argc, char *argv[], int *fdNum, int fdlist[INI\_FD\_MAX])  
BOOL INI\_Handler (fd_set *p_fds)  
void INI\_Term (void)  
int32_t INI\_SetMonitorState (T\_PRIM\_MONITOR\_PRM *p_prm)  
void \_INI\_DEBUGDUMP (BOOL blsNeedSvcName, PCSTR f_cFormat,...)  
E_CWORD33_Status CWORD33\_OnTouch (HANDLE hApp)
```

**Detailed Description**

This file provide api to operating INI.

## interface\_unified.h File Reference

include all interface\_unified head files

```
#include "system_service/_CWORD33__system_application.h"
#include "system_service/_CWORD33__system_types.h"
#include "system_service/ss_boot_map.h"
#include "system_service/ss_client_names.h"
#include "system_service/ss_devicedetection_service.h"
#include "system_service/ss_devicedetection_service_ifc.h"
#include "system_service/ss_devicedetection_service_notifications.h"
#include "system_service/ss_devicedetection_service_protocol.h"
#include "system_service/ss_devicedetection_service_types.h"
#include "system_service/ss_error_event_common.h"
#include "system_service/ss_error_message.h"
#include "system_service/ss_heartbeat_if.h"
#include "system_service/ss_heartbeat_notifications.h"
#include "system_service/ss_heartbeat_service_protocol.h"
#include "system_service/ss_last_to_order.h"
#include "system_service/ss_logger_service.h"
#include "system_service/ss_logger_service_ifc.h"
#include "system_service/ss_logger_service_notifications.h"
#include "system_service/ss_logger_service_protocol.h"
#include "system_service/ss_services.h"
#include "system_service/ss_sm_client_if.h"
#include "system_service/ss_sm_thread_names.h"
#include "system_service/ss_string_maps.h"
#include "system_service/ss_sys_boot_area_map.h"
#include "system_service/ss_system_if.h"
#include "system_service/ss_system_manager_if.h"
#include "system_service/ss_system_manager_notifications.h"
#include "system_service/ss_system_manager_protocol.h"
#include "system_service/ss_system_process.h"
#include "system_service/ss_system_timer.h"
#include "system_service/ss_system_types.h"
#include "system_service/ss_templates.h"
#include "system_service/ss_test_clients.h"
#include "system_service/ss_version.h"
#include "system_service/ss_logger_store_logs.h"
#include "system_service/ss_devicedetection_service_local.h"
#include "system_service/ss_devicedetection_service_protocol_local.h"
#include "system_service/ss_devicedetection_service_types_local.h"
#include "system_service/ss_error_event_common_local.h"
```

```
#include "system_service/ss_sm_client_if_local.h"  
#include "system_service/ss_sm_thread_names_local.h"  
#include "system_service/ss_system_manager_if_local.h"  
#include "system_service/ss_system_manager_notifications_local.h"  
#include "system_service/ss_system_manager_protocol_local.h"  
#include "system_service/ss_logger_service_local.h"  
#include "system_service/ss_power_service_if.h"  
#include "system_service/ss_power_service_notifications.h"  
#include "system_service/ss_power_service_protocol.h"  
#include "system_service/ss_power_service.h"  
#include "system_service/ss_power_service_local.h"  
#include "system_service/ss_power_service_notifications_local.h"
```

---

### **Detailed Description**

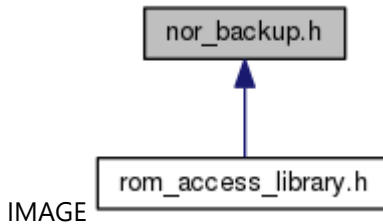
include all interface\_unified head files



## nor\_backup.h File Reference

This file provides API for get nor flash information.

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



### Macros

```
#define RET\_DEV\_NORMAL 0
#define RET\_DEV\_ERR\_PARAM 3
#define RET\_DEV\_ERROR 4
#define RET\_DEV\_RD\_ERR\_OTHER 1
#define RET\_DEV\_RD\_ERR 2
#define RET\_DEV\_RD\_ERR\_1 -1
#define RET\_DEV\_RD\_ERR\_2 -2
#define RET\_DEV\_RD\_ERR\_3 -3
#define RET\_DEV\_RD\_ERR\_4 -4
#define RET\_DEV\_WT\_ERR\_OTHER 1
#define RET\_DEV\_WT\_ERR 2
```

### Functions

int [mtdn\\_backup\\_Read](#) (const char \*path\_name, int i\_id, int i\_offset, int i\_size, void \*p\_buff)  
int [mtdn\\_backup\\_Write](#) (const char \*path\_name, int i\_id, int i\_offset, int i\_size, void \*p\_buff)

---

### Detailed Description

This file provides API for get nor flash information.

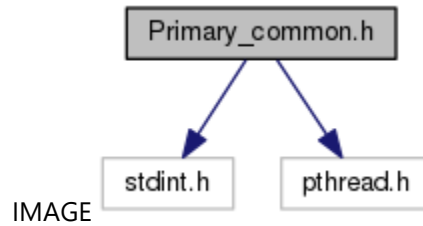
## Primary\_common.h File Reference

This file contains declaration of common enum and structures.

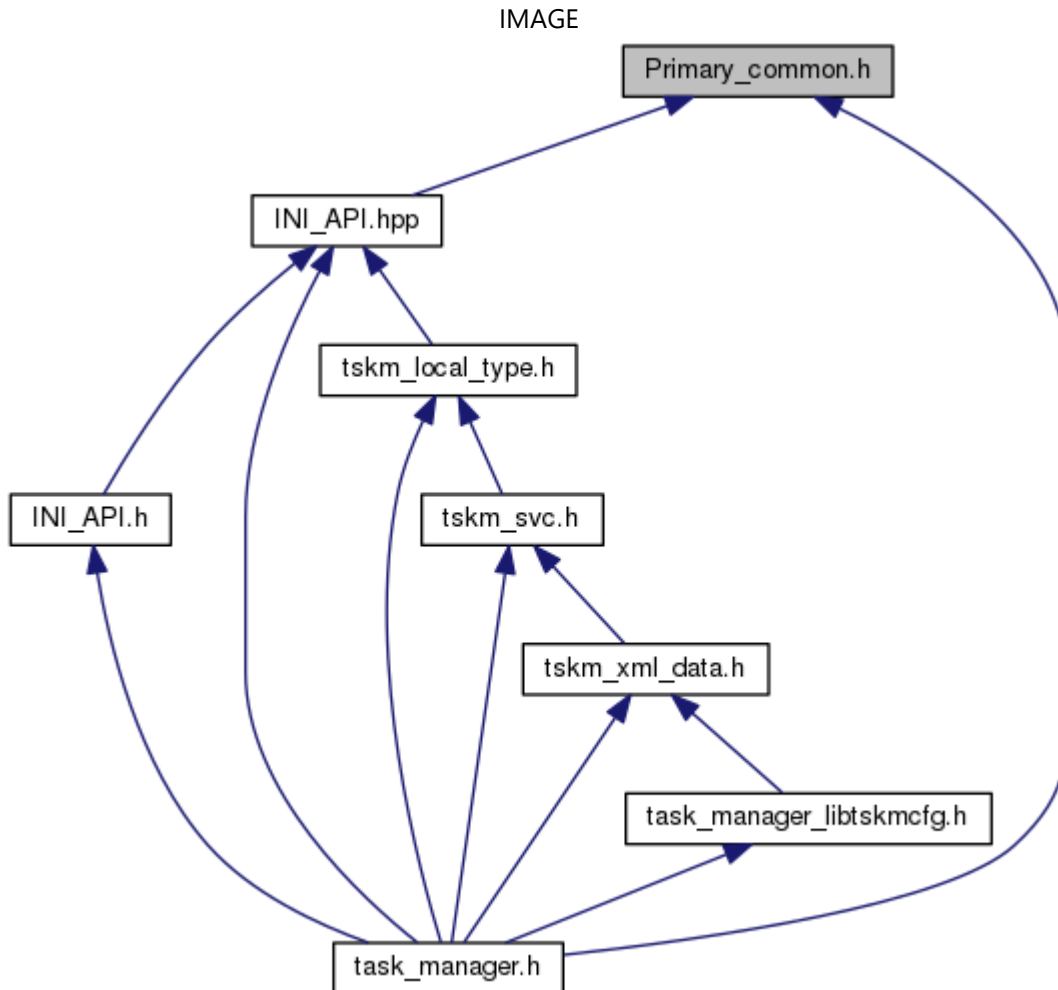
```
#include <stdint.h>
```

```
#include <pthread.h>
```

Include dependency graph for Primary\_common.h:



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



## Classes

```
struct PRIM\_SHAREDATA\_TBL
struct PRIM\_FORK\_TBL
struct PRIM\_EXFUNC\_TBL
struct PRIM\_BACKUPCHK\_TBL
struct PRIM\_ACCOFF\_TBL
```

## Macros

```
#define SRAM_INIT (int)0 /* */
#define SRAM_CHK (int)1 /* */
#define SRAM_MAPVER (int)2 /* Version */
#define SRAM_MAPVER_CHK (int)3 /* Version + */
#define SRAM_SYSTEM_INIT (int)4 /* #37 */
#define SRAM_CONFIG_INIT (int)5 /* #37 */
#define SRAM_CHK_OK (int)0 /* SRAM */
#define SRAM_CHK_CHG (int)1 /* SRAM */
#define SRAM_CHK_NG (int)-1 /* SRAM */
#define PRIM_SHM_NAME_MAX 32 /* */
```

## Typedefs

```
typedef unsigned int PRI_DWORD
```

## Enumerations

```
enum _PRIM_FORK_STEP { PRIM_STEPFORK_FIRST = ***, PRIM_STEPFORK_SECOND,
PRIM_STEPFORK_THIRD, PRIM_STEPFORK_FOURTH, PRIM_STEPFORK_FIFTH,
PRIM_STEPFORK_SIXTH, PRIM_STEPFORK_SEVENTH, PRIM_STEPFORK_EIGHTH,
PRIM_STEPFORK_NINTH, PRIM_STEPFORK_TENTH, PRIM_STEPFORK_MAX }
enum _PRIM_ACCOFF_STEP { PRIM_ACCOFF_FIRST = ***, PRIM_ACCOFF_SECOND,
PRIM_ACCOFF_THIRD, PRIM_ACCOFF_FOURTH, PRIM_ACCOFF_FIFTH,
PRIM_ACCOFF_MAX }
```

---

## Detailed Description

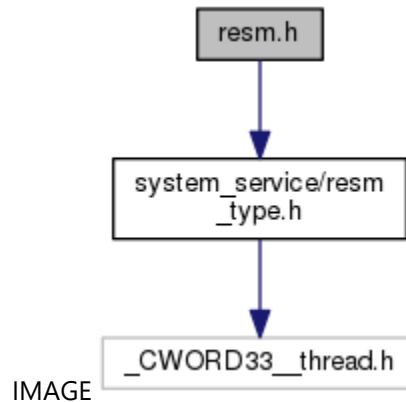
This file contains declaration of common enum and structures.

## resm.h File Reference

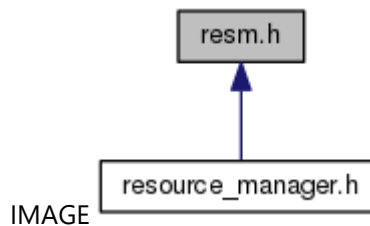
This file contains declaration of APIs for resm library.

```
#include "system_service/resm_type.h"
```

Include dependency graph for resm.h:



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



### Functions

RESM\_ERR\_t [RESM\\_Open](#) (const RESM\_RSV\_t \*p\_prim, uint32\_t \*p\_ssnld)

RESM\_ERR\_t [RESM\\_Close](#) (uint32\_t ssnld)

RESM\_ERR\_t [RESM\\_ReqEvent](#) (uint32\_t ssnld, const [RESM\\_REQ\\_EVENT\\_t](#) \*p\_reqEvent)

RESM\_ERR\_t [RESM\\_GetEventFd](#) (uint32\_t ssnld, int \*p\_fd)

RESM\_ERR\_t [RESM\\_GetEvent](#) (uint32\_t ssnld, RESM\_EV\_t \*p\_evFlag)

RESM\_ERR\_t [RESM\\_GetStatus](#) (uint32\_t ssnld, [RESM\\_STATUS\\_t](#) \*p\_status)

---

### Detailed Description

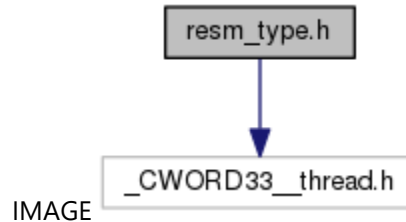
This file contains declaration of APIs for resm library.

## resm\_type.h File Reference

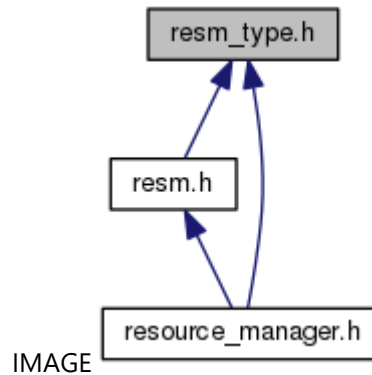
This file contains declaration of common enum and structures for resm library.

```
#include <_CWORD33_thread.h>
```

Include dependency graph for resm\_type.h:



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



### Classes

```
struct RESM\_REQ\_EVENT\_t  
struct RESM\_INET\_STATUS\_t  
struct RESM\_STATUS\_t  
struct RESM\_REQ\_EVENT\_t.prm  
struct RESM\_INET\_STATUS\_t.ifInfo
```

### Macros

```
#define NTFY_ResourceMgr_Availability MN_SS_RESOURCEMGR"/Availability"  
#define RESM_ERR_t int32_t  
#define RESM_E_OK (0)  
#define RESM_E_PAR (-1)  
#define RESM_E_NG (-2)  
#define RESM_EV_t uint32_t  
#define RESM_EV_NOP (0x00)  
#define RESM_EV_MEM (0x01)  
#define RESM_EV_NAND_STATUS (0x02)  
#define RESM_RSV_t int32_t
```

```
#define RESM_INET_IF_MAX 5 /* tentative */  
#define HWADDR_LEN (6)
```

### Enumerations

```
enum RESM_NAND_WRITE_STATUS_t { RESM_NAND_WRITE_ENABLE = ***,  
    RESM_NAND_WRITE_DISABLE = -1 }
```

---

### Detailed Description

This file contains declaration of common enum and structures for resm library.

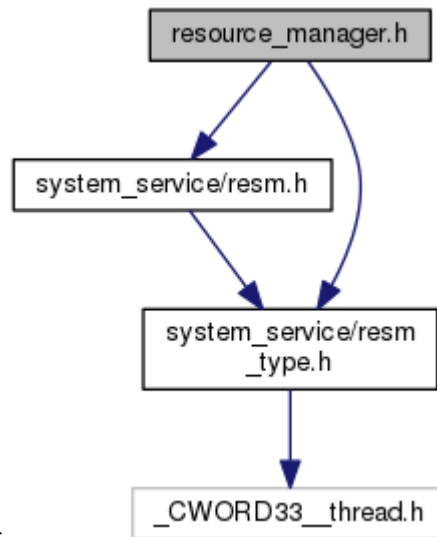
## resource\_manager.h File Reference

include all resm\_library head files

```
#include "system_service/resm.h"
```

```
#include "system_service/resm_type.h"
```

Include dependency graph for resource\_manager.h:



IMAGE

---

### Detailed Description

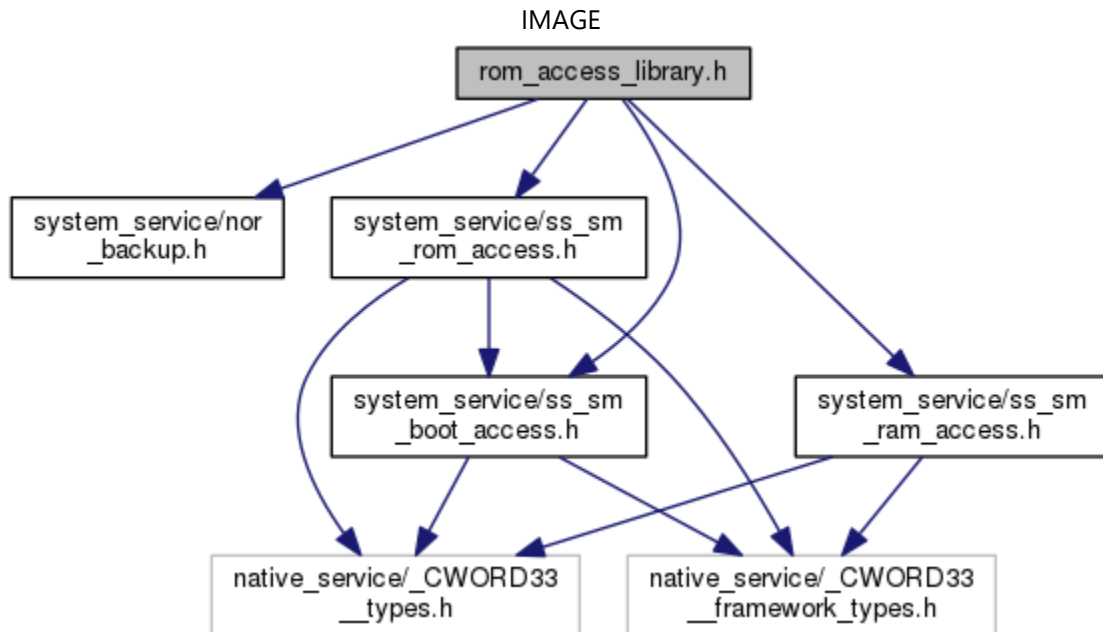
include all resm\_library head files

## rom\_access\_library.h File Reference

This file include all head file of rom and nor access library.

```
#include "system_service/nor_backup.h"  
#include "system_service/ss_sm_rom_access.h"  
#include "system_service/ss_sm_boot_access.h"  
#include "system_service/ss_sm_ram_access.h"
```

Include dependency graph for rom\_access\_library.h:



---

### Detailed Description

This file include all head file of rom and nor access library.



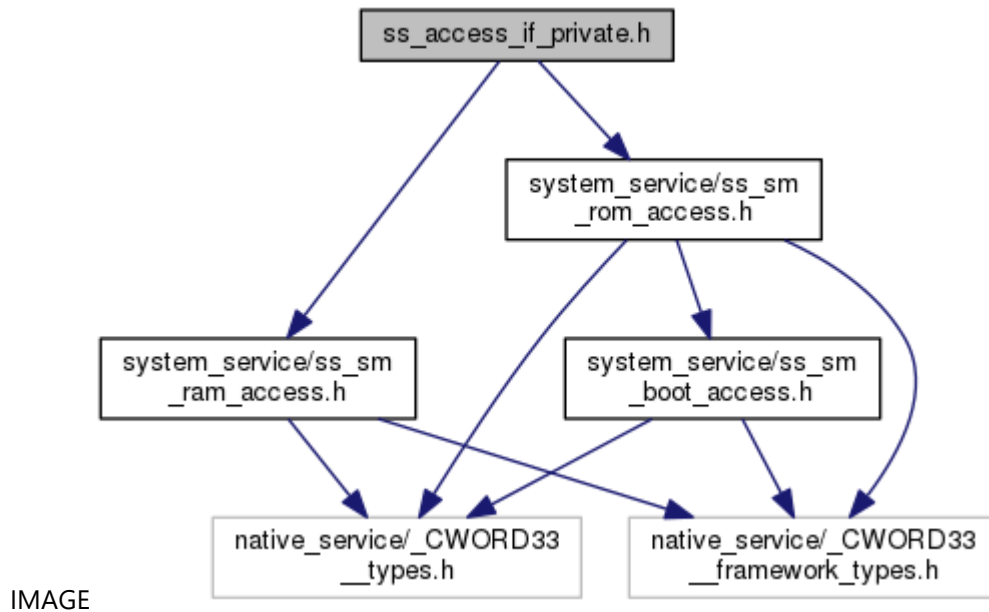
## ss\_access\_if\_private.h File Reference

This file contains declaration of structures.

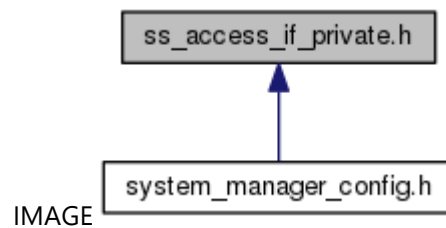
```
#include <system_service/ss_sm_rom_access.h>
```

```
#include <system_service/ss_sm_ram_access.h>
```

Include dependency graph for ss\_access\_if\_private.h:



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



### Classes

struct [RAM AccessPrivate](#)

*RAM Access Private data define. [More...](#)*

struct [ROM AccessPrivate](#)

*ROM Access Private data define. [More...](#)*

union [RAM AccessPrivate. unnamed](#)

struct [RAM AccessPrivate. unnamed](#) . [unnamed](#)

*CWORD80 error define [More...](#)*

union [ROM AccessPrivate. unnamed](#)

struct [ROM AccessPrivate. unnamed](#) . [unnamed](#)

*CWORD80 error count, connect state* [More...](#)

### **Macros**

```
#define SS_CONN_NONE 0  
#define SS_CONN_HAS_CWORD80_1  
#define SS_CONN_HASNOT_CWORD80_2
```

---

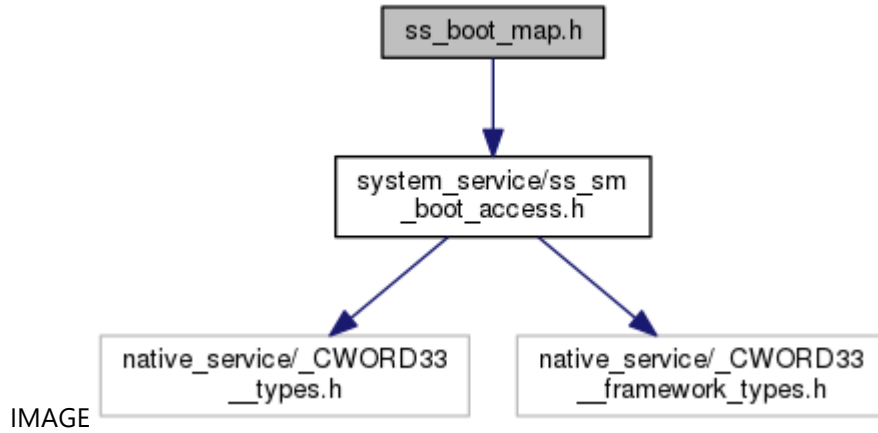
### **Detailed Description**

This file contains declaration of structures.

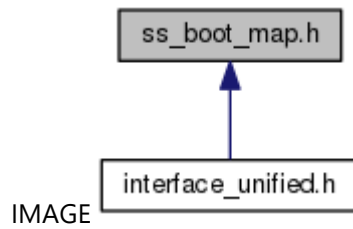
## ss\_boot\_map.h File Reference

```
#include <system_service/ss_sm_boot_access.h>
```

Include dependency graph for ss\_boot\_map.h:



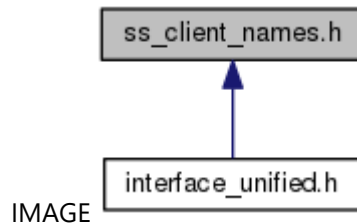
This graph shows which files directly or indirectly include this file:



## ss\_client\_names.h File Reference

This file supports contains the queue names of the client services that System Services needs to know about.

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



### Macros

```
#define SERVICE_CWORD69_ "_CWORD69_"
#define SERVICE_AS_AUDIO "AS_AudioService"
#define SERVICE_AS_MODE "AS_ModeService"
#define SERVICE_BR_BROWSER "BR_BrowserService"
#define SERVICE_CAN_SHADOW "VS_CANSShadow"
#define SERVICE_CWORD51_BT "_CWORD51_BT"
#define SERVICE_CWORD51_DR "_CWORD51_DR"
#define SERVICE_CWORD51__CWORD105_ "_CWORD51__CWORD105_"
#define SERVICE_DAB "RS_Master_Tuner"
#define SERVICE_HMI "HMI"
#define SERVICE_HMI_CWORD46_ "HMI_CWORD46_Service"
#define SERVICE_HMI_CWORD77_ "HMI_CWORD77_Service"
#define SERVICE_IPC_MP_SHADOW "PS_IPC_MP_Shadow"
#define SERVICE_KEY_HANDLER "PS_KeyHandler"
#define SERVICE_MM_ICD "MM_ICDService"
#define SERVICE_MM_MEDIA "MM_MediaService"
#define SERVICE_MM_CWORD21_ "MM_CWORD21_Service"
#define SERVICE_NAV "NAV_NavigationService"
#define SERVICE_NAV_LOC "NAV_LocationService"
#define SERVICE_NS_NPP "NS_NPPService"
#define SERVICE_NS_SHARED_MEM "NS_SharedMem"
#define SERVICE_NW_BT "NW_BluetoothService"
#define SERVICE_NW_CONNECTION "NW_ConnectionService"
#define SERVICE_NW_MESSAGING "NW_MessagingService"
#define SERVICE_NW_PHONE "NW_PhoneService"
#define SERVICE_NW_PHONE_BOOK "NW_PhoneBookService"
#define SERVICE_PSM_SHADOW "PS_PSMShadow"
#define SERVICE_PS_IPC "PS_IPC"
#define SERVICE_PS_SWDL_SHADOW "PS_SoftwareUpdateShadow"
#define SERVICE_SDARS "RS_XSDARSService"
#define SERVICE_TUNER "RS_Radio"
```

```
#define SERVICE_VS_CWORD4_ "VS_CWORD4_Service"  
#define SERVICE_VS_DIAG "VS_DiagService"  
#define SERVICE_VS_DIAG_DISP "DiagDispatcherService"  
#define SERVICE_VS_CWORD105_ "VS_CWORD105_Service"  
#define SERVICE_VS_RVC "VS_RVCService"  
#define SERVICE_VS_VEHICLE "VS_VehicleService"
```

---

### **Detailed Description**

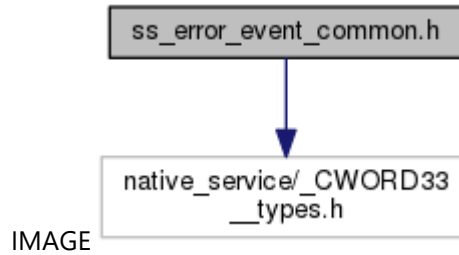
This file supports contains the queue names of the client services that System Services needs to know about.

## ss\_error\_event\_common.h File Reference

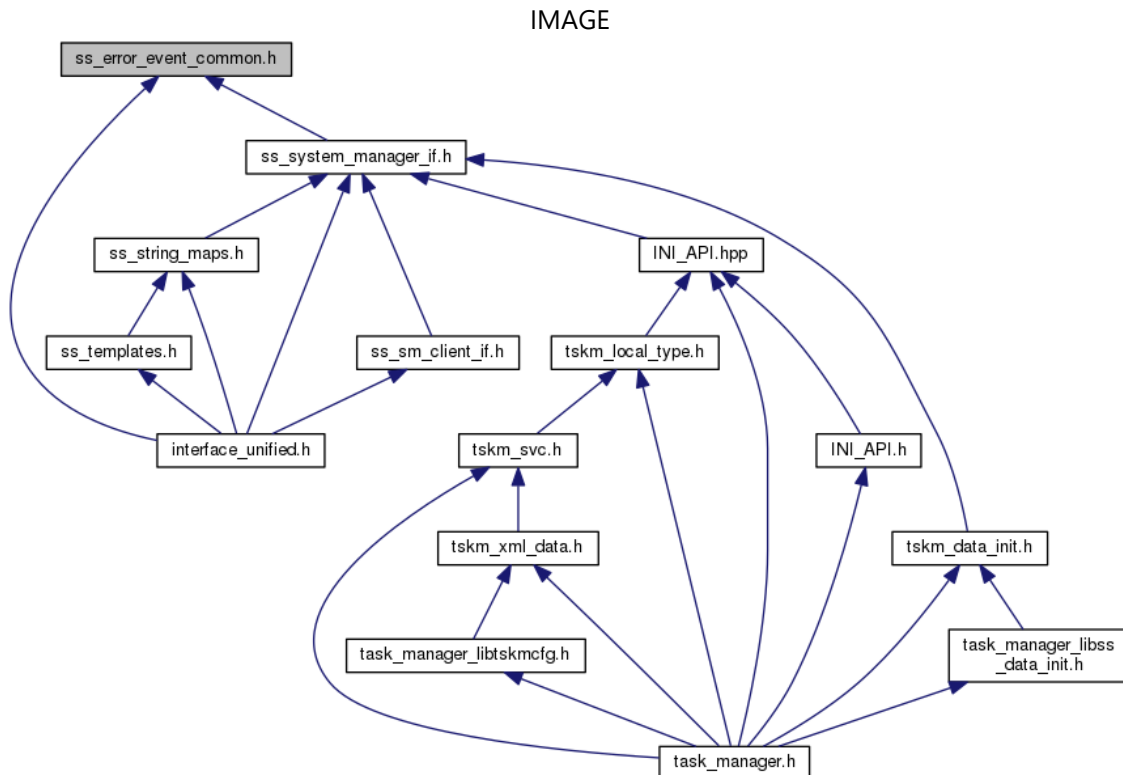
This file supports SM logging.

```
#include <native_service/_CWORD33_types.h>
```

Include dependency graph for ss\_error\_event\_common.h:



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



### Classes

struct [ARTIFACT\\_RESPONSE](#)

### Enumerations

```
enum EErrorEventType { eErrorEventTypeProcessCrash = ***,  
  eErrorEventTypeHeartBeatFailure, eErrorEventTypeSystemLowMemory,
```

```

eErrorEventTypeReserved1, eErrorEventTypeUserInvokedUserForceReset,
eErrorEventTypeReserved2, eErrorEventTypeReserved3,
eErrorEventTypeUserInvokedCollectAllLogs, eErrorEventTypeBootMicroReset,
eErrorEventTypeProcessExit, eErrorEventTypeUserInvokedCollectScreenShot,
eErrorEventTypeUserInvokedCollect_CWORD33_Logs, eErrorEventTypeEelExport,
eErrorEventType_CWORD33_EmmcLogs, eErrorEventTypeDiagEvent,
eErrorEventTypeCanEvent, eErrorEventTypeDtcEvent, eErrorEventTypeModConnFailed,
eErrorEventTypeStartRespFailed, eErrorEventTypeUserInvokedCollectDevLogs,
eErrorEventTypeModuleInvokedResetRequest,
eErrorEventTypeModuleInvokedCollectDebugLogs,
eErrorEventTypeUserInvokedClearLogs, eErrorEventTypeUserInvokedCollectNaviLog,
eErrorEventTypeGroupRelaunch, eErrorEventTypeMaxValue }
enum EArtifactId { eArtifactId_CWORD33_DebugLog = ***, eArtifactIdTransmitLog,
eArtifactIdPerformanceLog, eArtifactIdBootMicroLog, eArtifactIdSystemDataCsv,
eArtifactIdShowMemTxt, eArtifactIdProcessCore, eArtifactIdDebugDumpLog,
eArtifactIdKernelLog, eArtifactIdDRInitialLog, eArtifactIdDRLocationLog,
eArtifactIdCpuHighLoadMonteCarloLogs, eArtifactIdMetaCoreLogs, eArtifactIdCmsLogs,
eArtifactIdInternalDTC, eArtifactIdComDebugLog, eArtifactIdRadioDebugLog,
eArtifactIdConnectivityDebugLog, eArtifactIdKernelBootLog,
eArtifactIdGraphicsDebugLog, eArtifactIdSysLog, eArtifactIdPstoreLog,
eArtifactIdClearAllLog, eArtifactIdNaviLog, eArtifactIdWinSysLog, eArtifactIdAppFwLog,
eArtifactIdTomoyoLog, eArtifactIdScreenShot, eArtifactIdDebugFolder2Content,
eArtifactIdDebugFolderContent, eArtifactIdMaxValue }

```

---

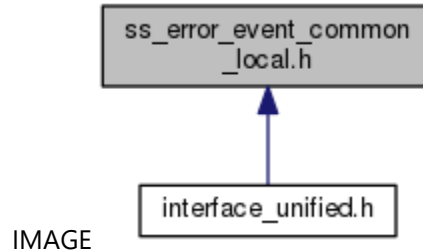
### Detailed Description

This file supports SM logging.

## ss\_error\_event\_common\_local.h File Reference

This file supports SM logging.

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



### Macros

```
#define SS_ERROR_EVENT_START_REQ_TO_SEC (5)
#define SS_ERROR_EVENT_DEBUG_DUMP_RSPN_TO_SEC (1)
#define SS_ERROR_EVENT_BOOT_MICRO_LOG_RESPONSE_TO_SEC (2)
#define SS_ERROR_EVENT_CORE_FILE_POLL_TO_MS (100)
```

### Enumerations

```
enum EErrorEventPrio { eErrorEventPrioDiagLogRequest = ***,
    eErrorEventPrioUserInvokedCollectAllLogs = ***,
    eErrorEventPrioUserInvokedCollectScreenShot = ***,
    eErrorEventPrioUserInvokedCollect_CWORD33_Logs = ***,
    eErrorEventPrioModuleInvokedCollectDebugLogs = ***,
    eErrorEventPrioUserInvokedUserForceReset = ***, eErrorEventPrioEelStorageFilePresent
    = ***, eErrorEventPrioEmmcLogsFilePresent = ***, eErrorEventPrioDefault = *** }
```

---

### Detailed Description

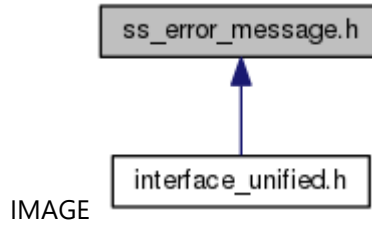
This file supports SM logging.



## ss\_error\_message.h File Reference

This file contains declaration of system error message.

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



### Macros

```
#define SS_ERROR_MSG_USB_DISCON "UsbDisconnected"  
#define  
    SS_ERROR_MSG_CWORD84_ABNORMAL_SHUTDOWN "_CWORD84_AbnormalShutdown"  
"
```

---

### Detailed Description

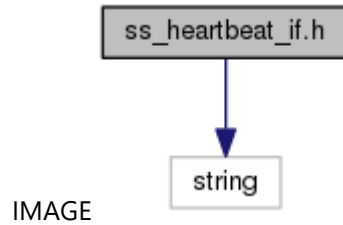
This file contains declaration of system error message.

## ss\_heartbeat\_if.h File Reference

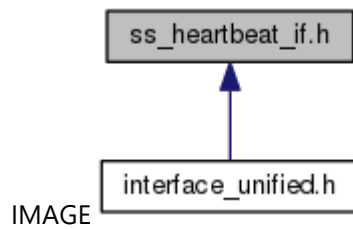
This file supports the System Manager Heartbeat Service.

```
#include <string>
```

Include dependency graph for ss\_heartbeat\_if.h:



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



### Classes

struct [THeartBeatSession](#)

class [CHeartBeatServiceIf](#)

---

### Detailed Description

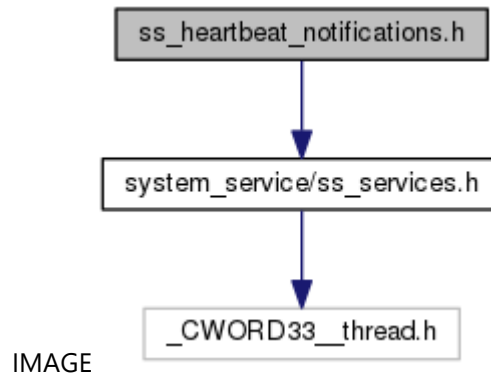
This file supports the System Manager Heartbeat Service.

## ss\_heartbeat\_notifications.h File Reference

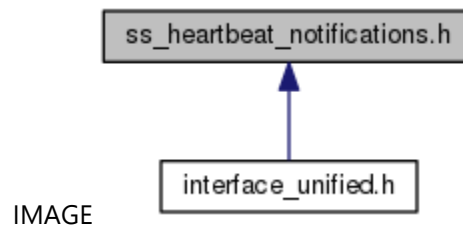
This file supports the System Manager Heartbeat Service.

```
#include "system_service/ss_services.h"
```

Include dependency graph for ss\_heartbeat\_notifications.h:



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



### Macros

```
#define NTFY HeartBeatAvailability SERVICE_HEARTBEAT"/Availability"  
Indicates if HeartBeat is available or unavailable.
```

---

### Detailed Description

This file supports the System Manager Heartbeat Service.

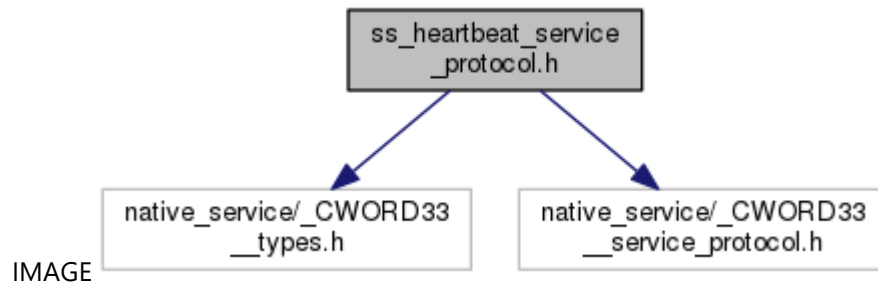
## ss\_heartbeat\_service\_protocol.h File Reference

Handle HeartBeat Module Start and Stop notifications.

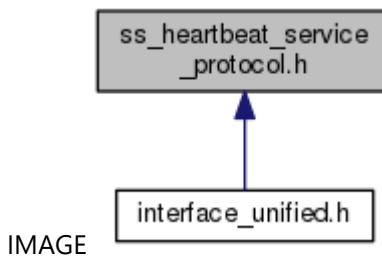
```
#include <native_service/_CWORD33__types.h>
```

```
#include <native_service/_CWORD33__service_protocol.h>
```

Include dependency graph for ss\_heartbeat\_service\_protocol.h:



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



### Typedefs

```
typedef enum T\_SMHBProtocolMessages EHBProtocolMessages
```

*HeatBeat Protocol Command heartbeat service protocol > define all protocol messages in and out of heart beat thread that are pertinent to the functionality offered by heart beat thread.*

### Enumerations

```
enum T\_SMHBProtocolMessages { SS HEARTBEAT PRINT CONNECTIONS = ***,  
SS HEARTBEAT PRINT STACK = ***, SS HEARTBEAT PERIODIC STATUS REQ = ***,  
SS HEARTBEAT PERIODIC RESP = ***, SS HEARTBEAT START = ***,  
SS HEARTBEAT STOP = ***, SS HEARTBEAT DELETE MODULE ENTRY = ***,  
SS HEARTBEAT MSG CATEGORY REPORT = ***, SS HEARTBEAT ERROR DETECTED =  
***, SS HEARTBEAT APPEND MODULE ENTRY = ***,  
SS HEARTBEAT AVAIL CHECK REQ = ***, SS HEARTBEAT AVAIL CHECK RESP = ***,  
SS HEARTBEAT RESPONSE = ***, SS HEARTBEAT REQUEST = *** }HeatBeat Protocol  
Command heartbeat service protocol > define all protocol messages in and out of  
heart beat thread that are pertinent to the functionality offered by heart beat thread.
```

---

**Detailed Description**

Handle HeartBeat Module Start and Stop notifications.

API Header for HeartBeat messages used by senders and receivers.

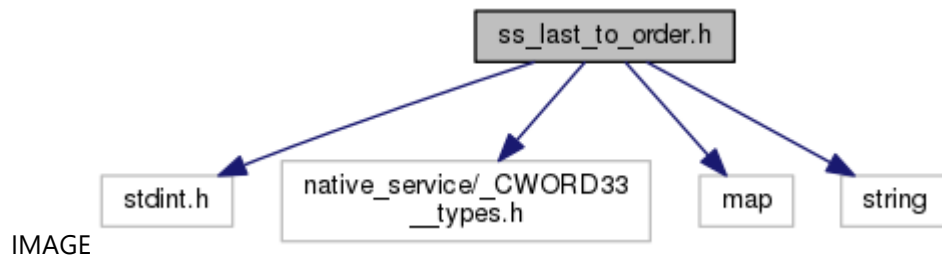
Declares the external Protocol messages to the HeartBeat.

## ss\_last\_to\_order.h File Reference

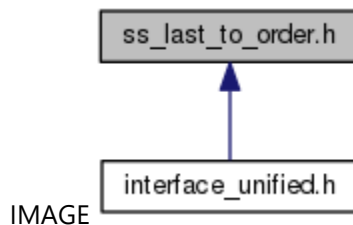
This file contains declaration of enum `SS_CONT_CATEGORY_t` and api convert lastinfo to order.

```
#include <stdint.h>
#include <native_service/_CWORD33_types.h>
#include <map>
#include <string>
```

Include dependency graph for `ss_last_to_order.h`:



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



### Typedefs

```
typedef std::string SS_CONTENT_NAME_t
typedef std::map< SS_CONT_CATEGORY_t, SS_CONTENT_NAME_t > SS_LAST_INFO_t
```

### Enumerations

```
enum SS_CONT_CATEGORY_t { SS_CCAT_F_VIDEO, SS_CCAT_F_SUB_VIDEO, SS_CCAT_F_AUDIO,  
  SS_CCAT_R_VIDEO, SS_CCAT_R_AUDIO, SS_CCAT_MAX }
```

### Functions

```
E_CWORD33_Status SS_ConvLastInfoToOrder (SS_LAST_INFO_t &curLastMode, std::string  
  &order, const char *p_cfgPath=NULL)
```

---

### Detailed Description

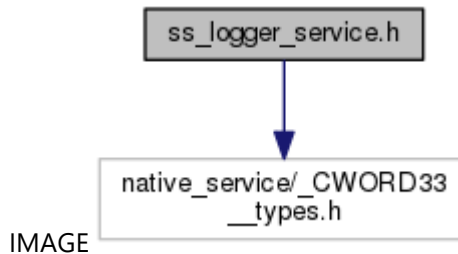
This file contains declaration of enum `SS_CONT_CATEGORY_t` and api convert lastinfo to order.

## ss\_logger\_service.h File Reference

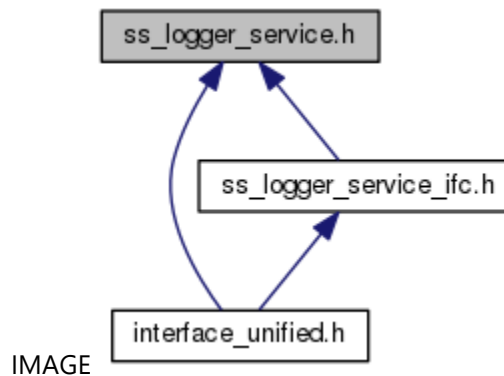
This file supports the the Logger Service.

```
#include <native_service/_CWORD33__types.h>
```

Include dependency graph for ss\_logger\_service.h:



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



### Classes

struct [\\_TVINnumber](#)

VIN numbers. struct [\\_T\\_CWORD33\\_CANMileageInfo](#)

CAN Diagnostic status data. [More...](#)

struct [\\_CWORD62\\_DateAndTime](#)

CAN current date and time. [More...](#)

struct [\\_T\\_CWORD33\\_ScreenCaptureEvt](#)

Screen Capture Event data. struct [\\_SStatisticalCounter](#)

Statistical counter. [More...](#)

struct [\\_SEventLoggerCommonInfo](#)

Event logger common information. [More...](#)

struct [\\_SEventLoggerResetInfo](#)

Event logger resets counter information. [More...](#)

struct [\\_SEventLoggerEventInfo](#)

Event logger CWORD56 events information. [More...](#)

struct [\\_SEventCANLoggerEventInfo](#)  
*Event logger CAN events information. [More...](#)*

## Macros

#define **MAX\_STATISTICAL\_BUFFER** 240  
#define [SHMEM\\_DRLOCATIONLOG](#) "/DRLocationLog"  
*Shared Memory names.*  
#define [SHMEM\\_DRINITIALLOG](#) "/DRInitialLog"  
*Shared Memory names.*

## Typedefs

typedef struct [\\_TVINnumber](#) [STVIN\\_NUMBER](#)  
*VIN numbers.*

typedef struct [T\\_CWORD33\\_CANMileageInfo](#) [STLOGGER\\_CANDIAGSTAT](#)  
*CAN Diagnostic status data.*

typedef struct [\\_CWORD62\\_DateAndTime](#) **STCanCurrentDateTime**

typedef enum [\\_ELoggerDeviceTypes](#) [EDEV\\_TYPE](#)  
*Logger Device Type.*

typedef enum [\\_ELoggerState](#) [ELOGGER\\_STAT](#)  
*Logger State.*

typedef enum [\\_ELoggerErrorCodes](#) **ELOGGERERR\_CODES**

typedef struct [T\\_CWORD33\\_ScreenCaptureEvt](#) [STScreenCaptureEvt](#)  
*Screen Capture Event data.*

typedef enum [\\_EEventLoggerUSBDeviceNumber](#) [EEvtLogUSBDevNumber](#)  
*USB source number to store event logs.*

typedef enum [\\_EDevNumber](#) [EDevNumber](#)  
*USB source number to store emergency error logs.*

typedef enum [\\_ECounterGroupID](#) [EStatCounterGroupID](#)  
*Counter group ID.*

typedef struct [\\_SStatisticalCounter](#) [SStatisticalCounter](#)  
*Statistical counter.*

typedef enum [\\_EEventLoggerSuccessCode](#) **EEvtLoggerSuccessCode**

typedef enum [\\_EEventLoggerErrorCode](#) [EEvtLoggerErrorCode](#)  
*Event Logger error code.*

typedef enum [\\_EEmergencyLogErrorCode](#) [EELL\\_ErrorCode](#)  
*Emergency Log error code.*

typedef struct [\\_SEventLoggerCommonInfo](#) [STEventLoggerCommonInfo](#)  
*Event logger common information.*

typedef struct [\\_SEventLoggerResetInfo](#) [STEventLoggerResetInfo](#)  
*Event logger resets counter information.*

typedef struct [\\_SEventLoggerEventInfo](#) [STEventLoggerEventInfo](#)



Event logger CWORD56 events information.

```
typedef struct \_SEventCANLoggerEventInfo SEventCANLoggerEventInfo
```

Event logger CAN events information.

### Enumerations

```
enum \_ELoggerDeviceTypes { eDevUSB1, eDevUSB2, eDevSD, eEthernet,  
eTotalDevicesTypes, eInvalid_DevType } Logger Device Type.
```

```
enum \_ELoggerState { eDeactivate, eActivate, eInvalid_LoggerState } Logger State.
```

```
enum _ELoggerErrorCodes { eSelectedDeviceNotFound = ***, eWriteToDeviceFailed = ***,  
eScreenCaptureFailed = ***, eScreenCaptureSaveTimeExpired = ***,  
eScreenCaptureStoreTimeExpired = ***, eNoLogToStore = *** }
```

```
enum \_EEventLoggerUSBDeviceNumber { USB0 = ***, USB1 = ***, SD = *** } USB  
source number to store event logs.
```

```
enum \_EDevNumber { eEEL_USB1 = ***, eEEL_USB2 = ***, eEEL_SD = *** } USB source  
number to store emergency error logs.
```

```
enum \_ECounterGroupID { STARTUP_SHUTDOWN_COUNTER_GROUP = ***,  
_CWORD105_EVENTS_COUNTER_GROUP, APP_USAGE_COUNTER_GROUP,  
F_BLK_STABILITY_COUNTER_GROUP, MAX_COUNTER_GROUP } Counter group ID.
```

```
enum _EEventLoggerSuccessCode { COPY_EVT_USB_SUCCESS = ***,  
CLEAR_EVENT_LOG_SUCCESS = ***, STATISTICAL_COUNTER_READ_SUCCESS = *** }
```

```
enum \_EEventLoggerErrorCode { USB_DEVICE_NOT_AVAILABLE = ***,  
USB_DEVICE_WRITE_ERROR = ***, CLEAR_EVENT_LOG_FAILED = ***,  
STATISTICAL_COUNTER_READ_FAILED = ***, NO_ERROR_INFO = *** } Event Logger  
error code.
```

```
enum \_EEmergencyLogErrorCode { eDEVICE_NOT_AVAILABLE = ***,  
eDEVICE_WRITE_ERROR = ***, eNO_ERROR_INFO = *** } Emergency Log error code.
```

---

### Detailed Description

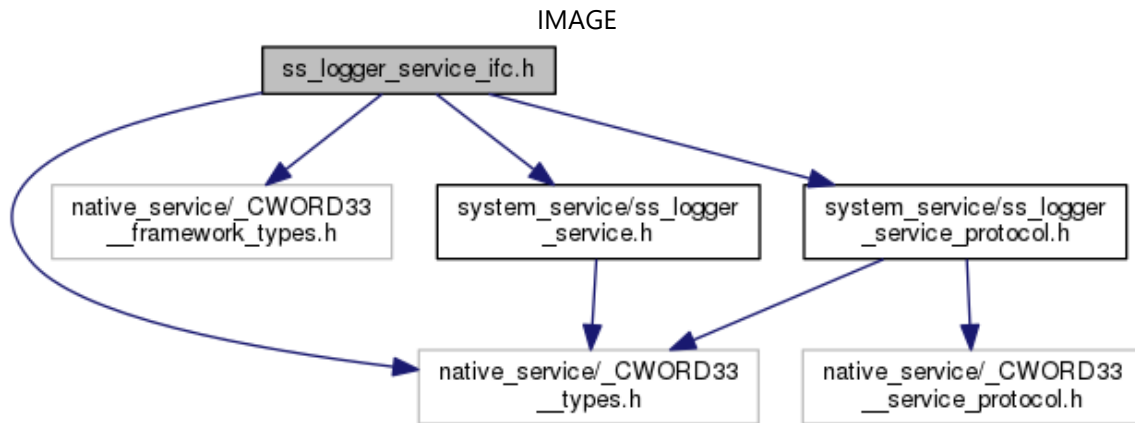
This file supports the the Logger Service.

## ss\_logger\_service\_ifc.h File Reference

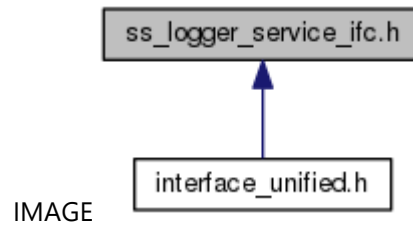
This file supports the the Logger Service.

```
#include <native_service/_CWORD33_types.h>  
#include <native_service/_CWORD33_framework_types.h>  
#include "system_service/ss_logger_service.h"  
#include "system_service/ss_logger_service_protocol.h"
```

Include dependency graph for ss\_logger\_service\_ifc.h:



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



### Classes

class [LoggerServiceIf](#)  
*logger\_service*

---

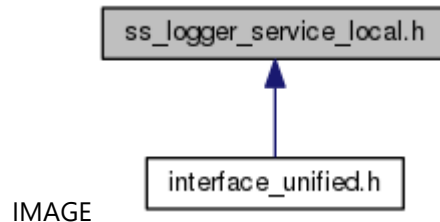
### Detailed Description

This file supports the the Logger Service.

## ss\_logger\_service\_local.h File Reference

This file supports the the Logger Service.

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



### Classes

struct [\\_T\\_CWORD33\\_SetLoggerParams](#)

*Screen Capture Event data. [More...](#)*

struct [\\_T\\_CWORD33\\_SetLoggerAllParams](#)

struct [\\_TErrorLogger\\_FolderInfo](#)

union [\\_uEvtLoggerCommonInfo](#)

*Event logger resets counter information. [More...](#)*

struct [\\_stLogEventss](#)

*Logger Event information. [More...](#)*

struct [\\_T\\_CWORD33\\_EventLogPersistBuffer](#)

### Macros

#define [MAX EVT RECORDS](#) 20000

*Macros definition for the Event Logs.*

#define [MAX EVENTLOG SIZE](#) 10\*[MAX EVT RECORDS](#)

*Max size for event logging.*

### Typedefs

typedef struct [\\_T\\_CWORD33\\_SetLoggerParams](#) [STLoggerSetParams](#)

*Screen Capture Event data.*

typedef struct [\\_T\\_CWORD33\\_SetLoggerAllParams](#) [STLoggerSetAllParams](#)

typedef struct [\\_TErrorLogger\\_FolderInfo](#) [STLoggerFolderInfo](#)

typedef union [\\_uEvtLoggerCommonInfo](#) [UEvtLoggerCommonInfo](#)

*Event logger resets counter information.*

typedef struct [\\_stLogEventss](#) [st\\_LogEvent\\_ss](#)

*Logger Event information.*

typedef struct [\\_T\\_CWORD33\\_EventLogPersistBuffer](#) [STEventLogPersistBuffer](#)

**Detailed Description**

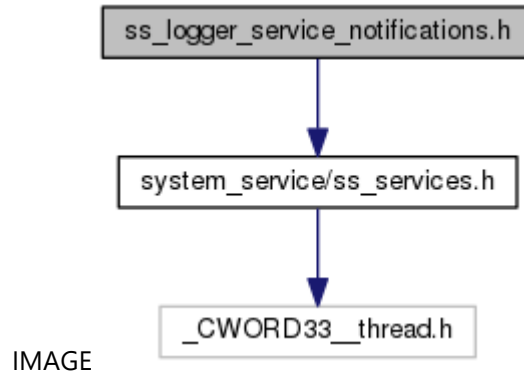
This file supports the the Logger Service.

## ss\_logger\_service\_notifications.h File Reference

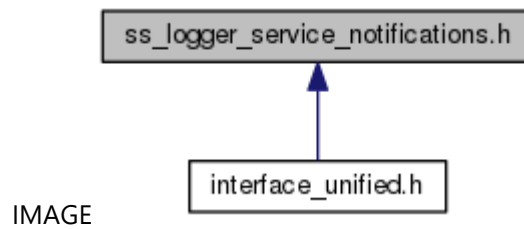
This file supports the the Logger Service.

```
#include "system_service/ss_services.h"
```

Include dependency graph for ss\_logger\_service\_notifications.h:



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



### Macros

```
#define NTFY\_SS LoggerService Availability SERVICE_LOGGER"/Availability"  
    Logger Service Availability Notification.
```

---

### Detailed Description

This file supports the the Logger Service.

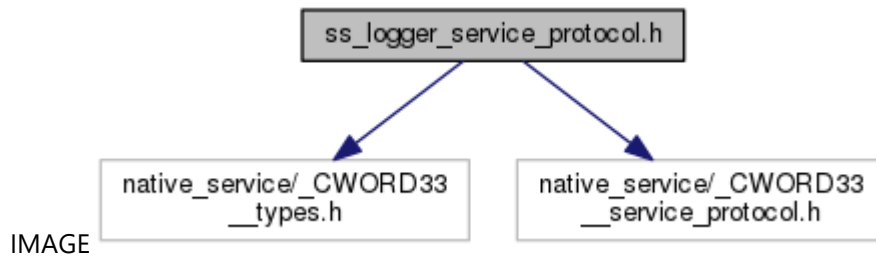
## ss\_logger\_service\_protocol.h File Reference

This file supports the the Logger Service.

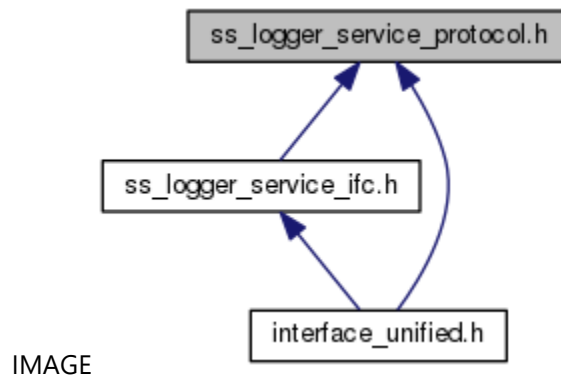
```
#include <native_service/_CWORD33__types.h>
```

```
#include <native_service/_CWORD33__service_protocol.h>
```

Include dependency graph for ss\_logger\_service\_protocol.h:



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



### Typedefs

```
typedef enum \_LoggerServiceProtocol SS\_LoggerServiceProtocol
```

*Logger service event IDs.*

```
typedef enum \_SS\_LOGGERSERVICEPROTOCOL SS\_loggerserviceprotocol
```

*Logger service event IDs.*

```
typedef enum \_LoggerServerEvents SS\_LoggerServerEvents
```

*Private events for the following categories of devices.*

### Enumerations

```
enum \_LoggerServiceProtocol { SS_LOGGER_MILEAGE_DATA = ***,  
SS_LOGGER_SET_PARAMS, SS_LOGGER_STORE_SCREENCAPTURE_AND_LOG,  
SS_LOGGER_STORE_SCREENCAPTURE, SS_LOGGER_STORE_LOG,  
SS_LOGGER_SCREENCAPTURE_EVT_ACK, SS_LOGGER_EVENT_COMMONINFO,  
SS_LOGGER_CWORD56_EVENT_INFO, SS_LOGGER_CWORD56_RESET_INFO,  
SS_LOGGER_SET_DATETIME, SS_LOGGER_SET_VIN, SS_LOGGER_UDP_LOGGING,
```

```

SS_LOGGER_ERROR_EVENT_ARTIFACT_REQ,
SS_LOGGER_ERROR_EVENT_ARTIFACT_RESP,
SS_LOGGER_CWORD105_SHUTDOWN_COMPLETE,
SS_LOGGER_DIAGDTC_ACTIVE, SS_LOGGER_SET_DIAGID,
SS_LOGGER_ERROR_EVENT_TIMER_ID_LOGGING_START_RSPN,
SS_LOGGER_ERROR_EVENT_TIMER_ID_ARTIFACT_RESPONSE,
SS_LOGGER_ERROR_EVENT_TIMER_ID_SCREEN_CAPTURE_RSPN }Logger service
event IDs.

```

```

enum SS\_LOGGERSERVICEPROTOCOL { SS_LOGGERCOPYEVENTUSB = ***,
SS_LOGGERCOPYEVENTUSB_SUCCESS_RESP,
SS_LOGGERCOPYEVENTUSB_ERROR_RESP, SS_LOGGERCOPYEMERGENCYLOGS,
SS_LOGGERCOPYEMERGENCYLOGS_SUCCESS_RESP,
SS_LOGGERCOPYEMERGENCYLOGS_ERROR_RESP, SS_LOGGERCLEAREVENT,
SS_LOGGERCLEAREVENT_SUCCESS_RESP, SS_LOGGERCLEAREVENT_ERROR_RESP,
SS_LOGGER_READ_STATL_COUNTER,
SS_LOGGER_READ_STATL_COUNTER_SUCCESS_RESP,
SS_LOGGER_READ_STATL_COUNTER_ERROR_RESP,
SS_LOGGER_RESET_STATL_COUNTER,
SS_LOGGER_RESET_STATL_COUNTER_SUCCESS_RESP,
SS_LOGGER_RESET_STATL_COUNTER_ERROR_RESP,
SS_LOGGER_ENG_READ_NUMOFEVENTS,
SS_LOGGER_ENG_READ_NUMOFEVENTS_RESP,
SS_LOGGER_ENG_READ_STATISTICAL_COUNTERS,
SS_LOGGER_ENG_READ_STATISTICAL_COUNTERS_RESP,
SS_LOGGER_UPLOAD_EVENTLOG, SS_LOGGER_UPLOAD_EVENTLOG_RESP }Logger
service event IDs.

```

```

enum LoggerServerEvents { SS_LOGGER_SCREENCAPTURE_EVT = ***,
SS_LOGGER_ERRORINFO_EVT, SS_LOGGER_LOGINFORM_EVT,
SS_LOGGER_LOGSTARTED_EVT }Private events for the following categories of devices.

```

```

enum eSSLoggerCANProtocolID { eSSLoggerCANProtocolIDCANTrigger = ***,
eSSLoggerCANProtocolIDDTCTrigger }eSSLoggerCANProtocolID

```

```

enum eSSLoggerCANEvent { eSSLoggerCANEventStart = ***,
eSSLoggerCANEventError, eSSLoggerCANEventFinished }eSSLoggerCANEvent

```

### Detailed Description

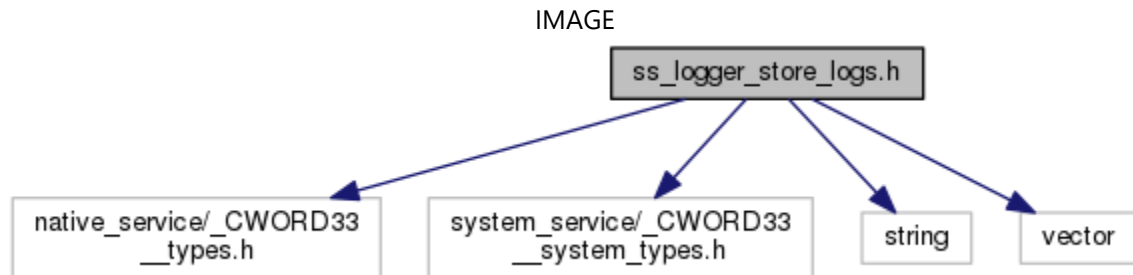
This file supports the the Logger Service.

## ss\_logger\_store\_logs.h File Reference

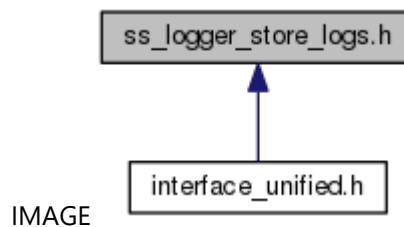
This file supports the logger service interface for SystemManager.

```
#include <native_service/_CWORD33__types.h>
#include "system_service/_CWORD33__system_types.h"
#include <string>
#include <vector>
```

Include dependency graph for ss\_logger\_store\_logs.h:



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



### Macros

```
#define
    SS_LOGGER_SAVE_CWORD33_LOG_FLAG "/ramd/log/_CWORD33_log/SS_LOGGER_SAVE_
    CWORD33_LOG_FLAG"
```

### Enumerations

```
enum SS_STORELOGS_OPE_TYPE { SS_STORELOGS_CWORD33_LOG = ***,
    SS_STORELOGS_ILLEGAL, SS_STORELOGS_ACCOFFON, SS_STORELOGS_SYS_ILLEGAL,
    SS_STORELOGS_ACCOFFON_PRESS, SS_STORELOGS_MAX }
```

### Functions

E\_CWORD33\_Status [SS\\_LoggerStoreLogs](#) (SS\_STORELOGS\_OPE\_TYPE type)  
*SSLoggerSrvIfWriteDebugLogs.*

E\_CWORD33\_Status **SS\_LoggerStoreLogs\_deleteOldLogAbnrm** (const std::string &log\_path,  
std::vector< std::string > &l\_vector, const std::string &f\_archive\_destination, SI\_32 max\_num,  
UI\_32 abnrm\_total)

E\_CWORD33\_Status **StartRtUsbLogThread** (HANDLE hApp)



E\_CWORD33\_Status **StopRtUsbLogThread** (HANDLE hApp)

---

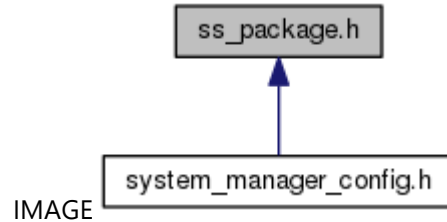
**Detailed Description**

This file supports the logger service interface for SystemManager.

## ss\_package.h File Reference

This file contains declaration of common package values.

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



### Macros

```
#define SS_PKG_SPI_LOADER "SPI_LOADER"  
#define SS_PKG_UBOOT "UBOOT"  
#define SS_PKG_SECURE_LOADER "SECURE_LOADER"  
#define SS_PKG_SYS_UCOM "SYS_UCOM"  
#define SS_PKG_CAN_UCOM "CAN_UCOM"  
#define SS_PKG_CWORD52_UCOM "_CWORD52_UCOM"  
#define SS_PKG_CWORD52_DATA "_CWORD52_DATA"  
#define SS_PKG_CWORD52_FIXEQ "_CWORD52_FIXEQ"  
#define SS_PKG_MAIN_EMMC "MAIN_EMMC"  
#define SS_PKG_TARGETBOARD "TARGETBOARD"  
#define SS_PKG_MAIN_PRODUCT_SI "MAIN_PRODUCT_SI"  
#define SS_PKG_MAIN_COMP_SI "MAIN_COMP_SI"  
#define SS_PKG_MAIN_LPF_SI "MAIN_LPF_SI"  
#define SS_PKG_FACTORY_FROM "FACTORY_FROM"  
#define SS_PKG_FACTORY_FROM2 "FACTORY_FROM2"  
#define SS_PKG_FACTORY_EEPROM "FACTORY_EEPROM"  
#define SS_PKG_DECK "DECK"  
#define SS_PKG_REAGION_CODE "REAGION_CODE"  
#define SS_PKG_CWORD8_DB "_CWORD8_DB"  
#define SS_PKG_CAPACITIVE_TP "CAPACITIVE_TP"  
#define SS_PKG_CWORD52__CWORD32_ "_CWORD52__CWORD32_"  
#define SS_PKG_RADIO_PARAMETER "RADIO_PARAMETER"  
#define SS_PKG_VR_DATA "VR_DATA"  
#define SS_PKG_NAVI_GPS "NAVI_GPS"  
#define SS_PKG_DTV_MAIN "DTV_MAIN"  
#define SS_PKG_DTV_EEPROM "DTV_EEPROM"  
#define SS_PKG_DTV_BOOT "DTV_BOOT"  
#define SS_PKG_DTV_STATION_DB "DTV_STATION_DB"  
#define SS_PKG_XM_TYPE_ID "XM_TYPE_ID"  
#define SS_PKG_XM_HW "XM_HW"  
#define SS_PKG_XM_SW "XM_SW"  
#define SS_PKG_XM_SXI "XM_SXI"
```

```
#define SS_PKG_XM_BB "XM_BB"  
#define SS_PKG_XM_HDEC "XM_HDEC"  
#define SS_PKG_XM_RF "XM_RF"  
#define SS_PKG_XM_SPL "XM_SPL"  
#define SS_PKG_XM_AREA "XM_AREA"  
#define SS_PKG_NAVI_PROGRAM "NAVI_PROGRAM"  
#define SS_PKG_NAVI_MAP "NAVI_MAP"  
#define SS_PKG_PHASE_INFO "PHASE_INFO"  
#define SS_PKG_SERIES_INFO "SERIES_INFO"  
#define SS_PKG_FPGA "FPGA"  
#define SS_PKG_VP_CWORD63_ "VP_CWORD63_"  
#define SS_PKG_VP_CWORD31_ "VP_CWORD31_"  
#define SS_PKG_PREINSTALL_DATA "PREINSTALL_DATA"  
#define MSG_PSM_REBOOT_NOTIFY 0x11
```

---

### **Detailed Description**

This file contains declaration of common package values.

## ss\_power\_service.h File Reference

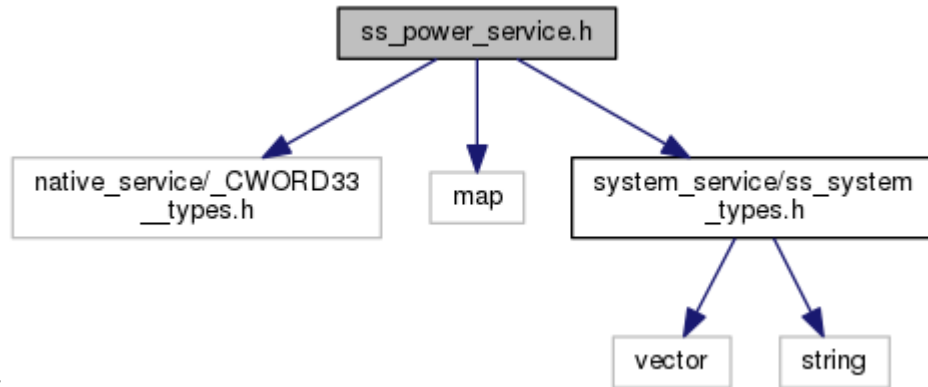
This file supports the Power Service interface.

```
#include <native_service/_CWORD33_types.h>
```

```
#include <map>
```

```
#include "system_service/ss_system_types.h"
```

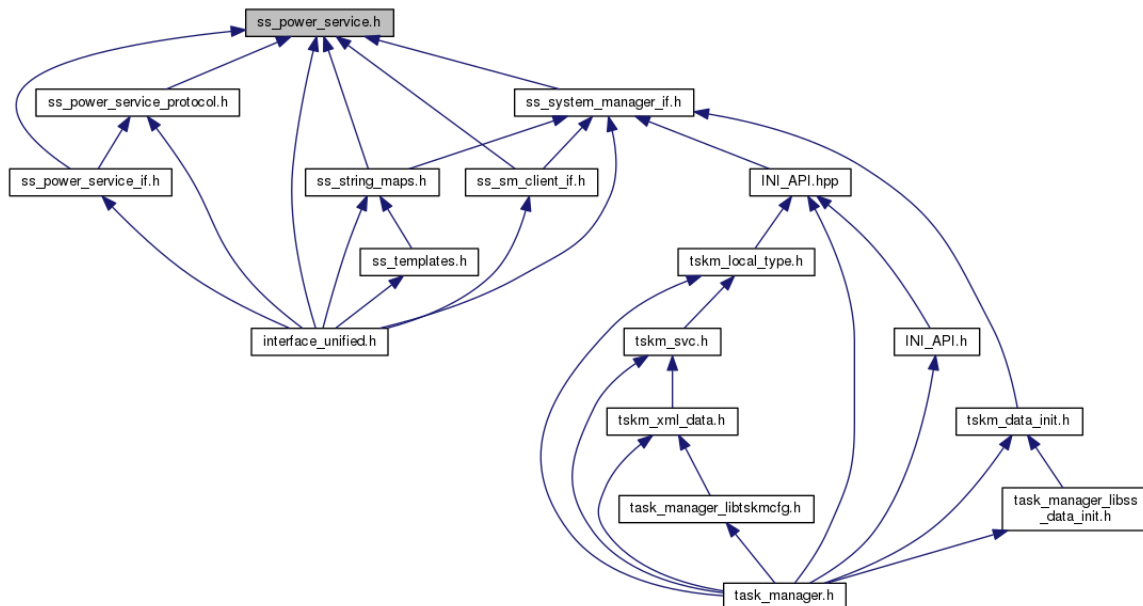
Include dependency graph for ss\_power\_service.h:



IMAGE

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

IMAGE



### Classes

struct [\\_upinfo](#)

struct [\\_wakeinfo](#)

struct [\\_SystemModelInfo](#)

```

struct StartupConfirmationMsgStrut
struct PowerRequestMsgStrut
struct PowerRequestMsgStrutWithUMCR
struct ShutdownRequestMsgStrut
struct EPWR\_HB\_REQ\_MSG\_STRUCT
struct SS\_Pwr\_CpuResetMsgStruct
struct Pwr\_ServiceSetInterface
union Pwr\_ServiceSetInterface::data
struct Pwr\_ServiceSetInterface::data::crank
struct Pwr\_ServiceSetInterface::data::voltage
struct Pwr\_ServiceSetInterface::data::ws\_complete
struct Pwr\_ServiceSetInterface::data::commwake
struct Pwr\_ServiceSetInterface::data::UserMode
struct Pwr\_ServiceSetInterface::data::ShutdownPopup
struct Pwr\_ServiceSetInterface::data::PowerPopup

```

## Macros

```
#define PWR_RESET_MSG_STR_SIZE 32
```

## Typedefs

```

typedef enum _PwLevelTypes PowerSrvLevelType
typedef enum _PwLevelTypes EPWR_LEVEL_TYPE
typedef enum PowerSrvSessionType EPWR_SESSION_TYPE
typedef enum ePowerSrvCANStates EPWR_CAN_STATE_TYPE
typedef enum ePowerSrvWakeupLevels EPWR_WAKEUP_LEVEL_TYPE
typedef EPWR_WAKEUP_LEVEL_TYPE * PEPWR_WAKEUP_LEVEL_TYPE
typedef enum ePowerSrvPowerStates EPWR_POWER_STATE_TYPE
typedef enum ePowerSrvVoltageStates EPWR_VOLTAGE_STATE_TYPE
typedef EPWR_VOLTAGE_STATE_TYPE * PEPWR_VOLTAGE_STATE_TYPE
typedef enum ePowerSrvCrankStates EPWR_CRANK_STATE_TYPE
typedef enum ePowerSrvWakeupFactors EPWR_WAKEUP_FACTOR_TYPE
typedef EPWR_WAKEUP_FACTOR_TYPE * PEPWR_WAKEUP_FACTOR_TYPE
typedef enum ePwrServiceShutdownPopupType EPWR_SHUTDOWN_POPUP_TYPE
typedef enum ePwrServicePowerPopupType EPWR_POWER_POPUP_TYPE
typedef enum ePwrServiceLHCType EPWR_LHC_TYPE
typedef enum ePwrServiceProdModeType EPWR_PROD_MODE_TYPE
typedef enum ePwrServiceTransportModeType EPWR_TRANSPORT_MODE_TYPE
typedef enum ePwrServiceUserModeType EPWR_USER_MODE_TYPE
typedef enum ePwrServiceUserModeChangeReasonType
EPWR_USER_MODE_CHANGE_REASON_TYPE
typedef struct \_upinfo upInfo
typedef struct \_wakeinfo wakeInfo
typedef enum ePowerSrvSystemModelInfo EPWR_SYSTEM_MODE_INFO
typedef enum ePowerSrvStartupStageType EPWR_STARTUP_STAGE_TYPE
typedef struct \_SystemModelInfo SystemModelInfo
typedef struct StartupConfirmationMsgStrut EPWR_SC_MSG_STRUCT
typedef enum ePowerSrv\_CWORD102\_StartupInfoType
EPWR_CWORD102_STARTUP_INFO_TYPE

```

```

typedef enum ePowerSrvPwrReqMsgCIDIOpeningType EPWR_OPENING_TYPE
typedef enum ePowerSrvPwrManResetInfoType EPWR_MAN_RESET_INFO_TYPE
typedef enum ePowerSrvTypeLastSysRetReq EPWR_LAST_SYS_RET_REQ_TYPE
typedef struct PowerRequestMsgStrut EPWR_POWER_REQUEST_MSG_STRUCT
typedef struct PowerRequestMsgStrutWithUMCR
    EPWR_POWER_REQUEST_MSG_STRUCT_WITH_UMCR
typedef enum ePowerSrvONSType EPWR_ONS_TYPE
typedef enum ePowerSrvPwrShutdownTriggerType EPWR_SHUTDOWN_TRIGGER_TYPE
typedef struct ShutdownRequestMsgStrut EPWR_SHUTDOWN_REQUEST_MSG_STRUCT

```

## Enumerations

```

enum \_PwLevelTypes { epspltUNKNOWN, epspltWAKEUP = ***, epspltNORMAL,
    epspltSHUTDOWN, epspltEMERGENCY }
enum PowerSrvSessionType { epsstUNKNOWN, epsstBASIC, epsstSUPERVISOR,
    epsstSYSTEM }
enum ePowerSrvCANStates { epscnINVALID = ***, epscnCANWAKEUP = ***, epscnCANSLEEP
    = *** }
enum ePowerSrvWakeupLevels { epswlINVALID = ***, epswIFULLRUN = ***,
    epswLOCALWAKEUP = *** }
enum ePowerSrvPowerStates { epswsINVALID = ***, epswsPWRON = ***, epswsPWROFF =
    *** }
enum ePowerSrvVoltageStates { epsvsINVALID = ***, epsvsNORMAL = ***, epsvsLVI1 = ***,
    epsvsLVI2 = *** }
enum ePowerSrvCrankStates { epscsINVALID = ***, epscsENTRY = ***, epscsEXIT = *** }
enum ePowerSrvWakeupFactors { epswfINVALID = ***, epswfTESTACC = ***, epswfON\_KEY =
    ***, epswfIGN\_ACC = ***, epswfDR\_OPEN\_CLOSE = ***, epswfDX\_ACTIVATION = ***,
    epswfETHERNET = ***, epswfPASS\_ACTIVATION = ***, epswfSPACTIVATION = ***,
    epswfUSER\_DATA\_RESET = *** }
enum ePwrServiceShutdownPopupType { epsspPowerSave1 = ***, epsspPowerSave2 = ***,
    epsspPowerSave3 = ***, epsspPowerSaveClr = ***, epsspLowVoltage1 = ***,
    epsspLowVoltage2 = ***, epsspLowVoltage3 = ***, epsspLowVoltageClr = ***,
    epsspBattCouplingSW1 = ***, epsspBattCouplingSW2 = ***, epsspBattCouplingSW3 =
    ***, epsspBattCouplingSWClr = ***, epsspAbnormalTemp\_1st = ***,
    epsspAbnormalTemp\_Clr = ***, epsspLimpHome\_1st = ***, epsspLimpHome\_2nd = ***,
    epsspLimpHome\_3rd = ***, epsspLimpHome\_Clr = ***, epsspProdMd\_1st = ***,
    epsspProdMd\_Clr = ***, epsspTransMd\_1st = ***, epsspTransMd\_Clr = ***, epsspAllClr =
    *** }
enum ePwrServicePowerPopupType { epsspNormal = ***, epsspCritical = ***,
    epsspAppCritical = ***, epsspAllClr = *** }
enum ePwrServiceLHCTYPE { epslhINVALID = ***, epslhDISABLED = ***, epslhENABLED =
    *** }
enum ePwrServiceProdModeType { epspmINVALID = ***, epspmDISABLED = ***,
    epspmENABLED = *** }
enum ePwrServiceTransportModeType { epstmINVALID = ***, epstmDISABLED = ***,
    epstmENABLED = *** }
enum ePwrServiceUserModeType { epsumINVALID = ***, epsumOFF = ***, epsumON = *** }

```

```

enum ePwrServiceUserModeChangeReasonType { epsumcrNOT\_AVAILABLE = ***,
epsumcrON\_KEY = ***, epsumcrPARKING\_B, epsumcrPRE\_BA, epsumcrNORMAL,
epsumcrBACKGROUND\_BA }
enum ePowerSrvSystemModelInfo { epssinfINVALID = ***, epssinfNORMAL = ***,
epssinfPROGRAMMING = *** }
enum ePowerSrvStartupStageType { epssusfINVALID = ***,
epssusSYSTEM\_SERVICES\_STARTED = ***, epssusALL\_SERVICES\_LAUNCHED = *** }
enum EPWR\_SC\_CWORD56\_BOOT\_MODE\_TYPE { eps\_CWORD56\_bmINVALID = ***,
eps\_CWORD56\_bmAPPLICATION\_MODE = ***,
eps\_CWORD56\_bmPROGRAMMING\_MODE = *** }
enum EPWR\_SC\_WAKEUP\_TYPE { epsstINVALID = ***, epsstWARMSTART = ***,
epsstCOLDSTART = *** }
enum EPWR\_SC\_COLD\_START\_REQ\_TYPE { epsscrtINVALID = ***, epsscrtNOT\_REQUIRED =
***, epsscrtREQUIRED = *** }
enum EPWR\_SC\_SECURITY\_STATUS { epsssINVALID = ***, epsssUNLOCK = ***, epsssLOCK =
*** }
enum ePowerSrv\_CWORD102\_StartupInfoType { epsprm\_CWORD102\_siINVALID = ***,
epsprm\_CWORD102\_si\_CWORD102\_STARTUP\_NORMAL = ***,
epsprm\_CWORD102\_si\_CWORD102\_STARTUP\_AFTER\_RESET = *** }
enum ePowerSrvPwrReqMsgCIDIOpeningType { epsprmotINVALID = ***,
epsprmotTIMING\_TYPE\_1 = ***, epsprmotTIMING\_TYPE\_2 = *** }
enum ePowerSrvPwrManResetInfoType { epsprmriINVALID = ***, epsprmriNORMAL = ***,
epsprmriWAKEUP\_AFTER\_RESET = *** }
enum ePowerSrvTypeLastSysRetReq { epsprlsrrINVALID = ***, epsprlsrrLAST\_SYSTEM\_OFF =
***, epsprlsrrLAST\_SYSTEM\_ON = *** }
enum ePowerSrvONSType { epssdmonsINVALID = ***, epssdmonsNO\_ONS = ***,
epssdmonsONS = *** }
enum ePowerSrvPwrShutdownTriggerType { epssdmsdtINVALID = ***,
epssdmsdtTESTACC\_OFF = ***, epssdmsdtON\_KEY = ***, epssdmsdtIGN\_LOCK = ***,
epssdmsdtPWR\_SAVE = ***, epssdmsdtTMP\_STARTUP = ***,
epssdmsdtDIAG\_DEACTIVATION = ***, epssdmsdtABNORMAL\_VOLTAGE = ***,
epssdmsdtABNORMAL\_TEMP = ***, epssdmsdtBATTERYCUTOFF = ***,
epssdmsdtLIMPHOME = ***, epssdmsdtHU\_CAN\_ERROR = ***,
epssdmsdtBODY\_CAN\_ERROR = ***, epssdmsdtTRANSPORT\_MODE = ***,
epssdmsdtPRODUCTION\_MODE = ***, epssdmsdtIGN\_OFF = ***,
epssdmsdtGENERIC\_ERROR\_RESET = ***, epssdmsdtFATAL\_ERROR\_RESET = ***,
epssdmsdtUSER\_DATA\_RESET = ***, epssdmsdtFACTORY\_DATA\_RESET = ***,
epssdmsdtFAST\_SLEEP\_MODE = ***, epssdmsdtNORMAL\_RESET = ***,
epssdmsdtPROGUPDATE\_RESET = *** }
enum epsCpuResetReason { epsCpuResetReasonGeneric = ***, epsCpuResetReasonFatalError,
epsCpuResetReasonUserDataReset, epsCpuResetReasonFactoryDataReset,
epsCpuResetReasonUserForceReset, epsCpuResetReasonShipmentModeReset,
epsCpuResetReasonHeadUnitReset, epsCpuResetReasonNormalReset,
epsCpuResetReasonProgupdateReset }

```

---

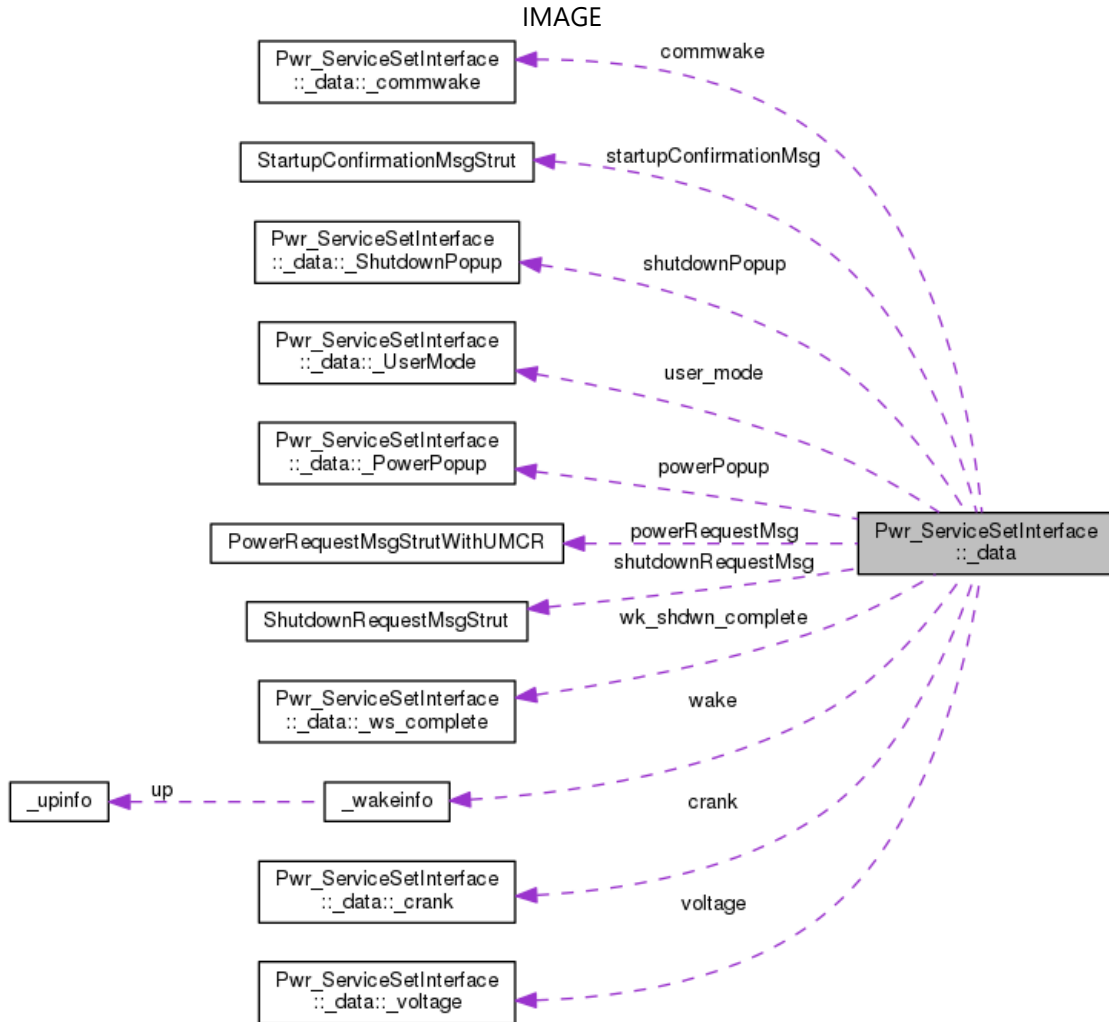
## Detailed Description

This file supports the Power Service interface.

## Class Documentation

### union Pwr\_ServiceSetInterface::\_data

Collaboration diagram for Pwr\_ServiceSetInterface::\_data:



### Class Members:

struct <a href="#">_commwake</a>	commwake	
struct <a href="#">_crank</a>	crank	
struct <a href="#">_PowerPopup</a>	powerPopup	
<a href="#">PowerRequestMsgStrutWithUMCR</a>	powerRequestMsg	
struct <a href="#">_ShutdownPopup</a>	shutdownPopup	
<a href="#">ShutdownRequestMsgStrut</a>	shutdownRequestMsg	
<a href="#">StartupConfirmationMsgStrut</a>	startupConfirmationMsg	
struct <a href="#">_UserMode</a>	user_mode	



struct <a href="#">_voltage</a>	voltage	
<a href="#">wakeInfo</a>	wake	
struct <a href="#">_ws_complete</a>	wk_shdwn_complete	

**struct Pwr\_ServiceSetInterface::\_data::\_crank**

**Class Members:**

EPWR_CRANK_STATE_TYPE	state	
-----------------------	-------	--

**struct Pwr\_ServiceSetInterface::\_data::\_voltage**

**Class Members:**

EPWR_VOLTAGE_STATE_TYPE	state	
-------------------------	-------	--

**struct Pwr\_ServiceSetInterface::\_data::\_ws\_complete**

**Class Members:**

EPWR_WAKEUP_FACTOR_TYPE	factor	
EPWR_WAKEUP_LEVEL_TYPE	level	

**struct Pwr\_ServiceSetInterface::\_data::\_commwake**

**Class Members:**

EPWR_CAN_STATE_TYPE	state	
---------------------	-------	--

**struct Pwr\_ServiceSetInterface::\_data::\_UserMode**

**Class Members:**

EPWR_USER_MODE_TYPE	mode	
---------------------	------	--

**struct Pwr\_ServiceSetInterface::\_data::\_ShutdownPopup**

**Class Members:**

EPWR_SHUTDOWN_POPUP_TYPE	shutdownPopupEvent	
--------------------------	--------------------	--

**struct Pwr\_ServiceSetInterface::\_data::\_PowerPopup**

**Class Members:**

EPWR_POWER_POPUP_TYPE	powerPopupEvent	
-----------------------	-----------------	--

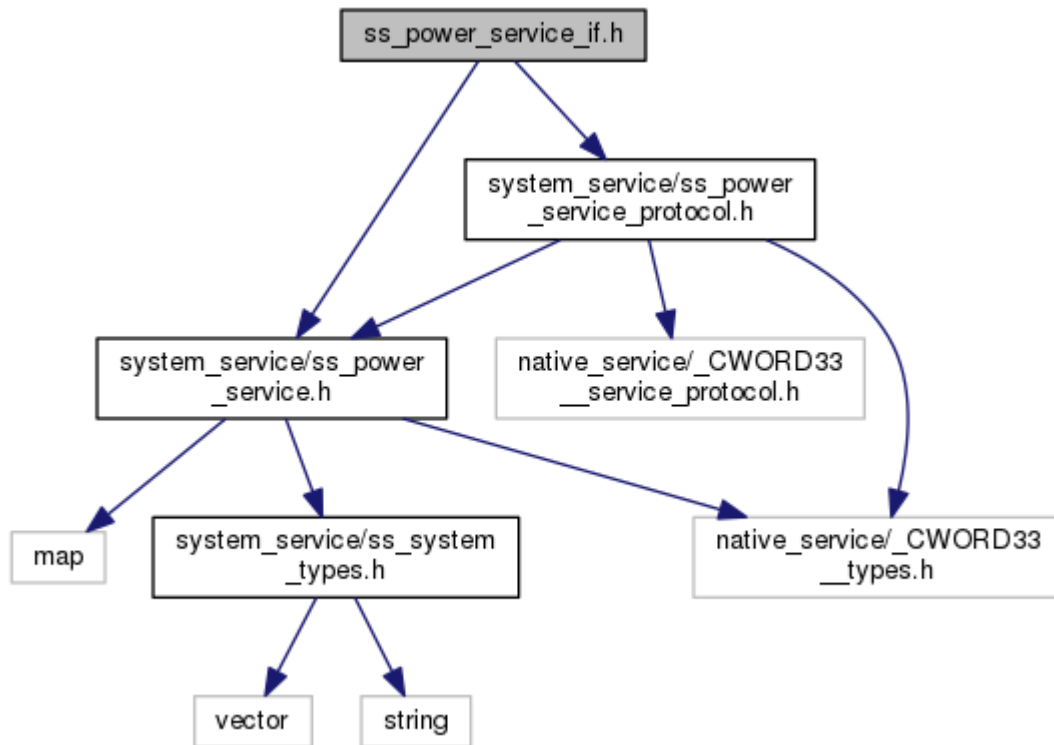
## ss\_power\_service\_if.h File Reference

This file supports the Power Service client interface.

```
#include "system_service/ss_power_service.h"
```

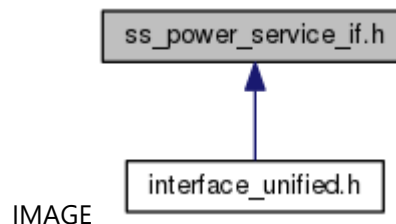
```
#include "system_service/ss_power_service_protocol.h"
```

Include dependency graph for ss\_power\_service\_if.h:



IMAGE

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



IMAGE

### Functions

HANDLE [OpenPowerService](#) (HANDLE f\_hApp)

E\_CWORD33\_Status [ClosePowerService](#) (HANDLE f\_hApp, HANDLE f\_hService)

E\_CWORD33\_Status [PwrServiceOpenSessionRequest](#) (HANDLE f\_hService, EPWR\_SESSION\_TYPE f\_eSessionType)

E\_CWORD33\_Status [PwrServiceCloseSessionRequest](#) (HANDLE f\_hService, HANDLE f\_hSession)

E\_CWORD33\_Status [PwrServiceDecodeOpenSessionResponse](#) (HANDLE f\_hApp, HANDLE &f\_hSession)  
E\_CWORD33\_Status [PwrServiceSetVoltageState](#) (HANDLE f\_hSession, EPWR\_VOLTAGE\_STATE\_TYPE f\_eVoltage\_state)  
E\_CWORD33\_Status [PwrServiceSetCrankState](#) (HANDLE f\_hSession, EPWR\_CRANK\_STATE\_TYPE f\_eCrank\_state)  
E\_CWORD33\_Status [PwrServiceSystemModelInfoRequest](#) (HANDLE f\_hSession)  
E\_CWORD33\_Status [PwrServiceSendInitCompReport](#) (HANDLE f\_hSession)  
E\_CWORD33\_Status [PwrServiceSendSetShutdownPopupRequest](#) (HANDLE f\_hSession, EPWR\_SHUTDOWN\_POPUP\_TYPE f\_eShutdownPopup)  
E\_CWORD33\_Status [PwrServiceSendStartupConfirmationMsgRequest](#) (HANDLE f\_hSession, [EPWR\\_SC\\_MSG\\_STRUCT](#) f\_eState)  
E\_CWORD33\_Status [PwrServiceSendPowerRequest](#) (HANDLE f\_hSession, [EPWR\\_POWER\\_REQUEST\\_MSG\\_STRUCT\\_WITH\\_UMCR](#) &f\_eState)  
E\_CWORD33\_Status [PwrServiceSendShutdownRequest](#) (HANDLE f\_hSession, [EPWR\\_SHUTDOWN\\_REQUEST\\_MSG\\_STRUCT](#) &f\_eState)  
E\_CWORD33\_Status [PwrServiceSendHeartBeatRequest](#) (HANDLE f\_hSession, [EPWR\\_HB\\_REQ\\_MSG\\_STRUCT](#) \*f\_eHbReqMsg)

---

### Detailed Description

This file supports the Power Service client interface.

## ss\_power\_service\_local.h File Reference

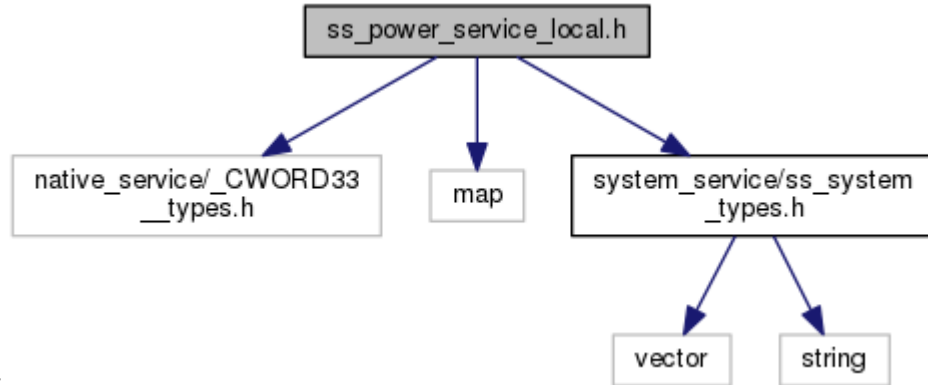
This file supports the Power Service interface.

```
#include <native_service/_CWORD33__types.h>
```

```
#include <map>
```

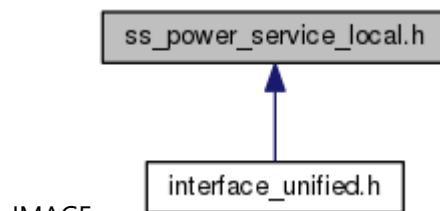
```
#include "system_service/ss_system_types.h"
```

Include dependency graph for ss\_power\_service\_local.h:



IMAGE

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



IMAGE

### Classes

struct [\\_PwCompleteAck](#)

struct [\\_SS\\_PSCurrentState](#)

### Typedefs

typedef enum \_PwLVISStatus **PowerSrvLVISStatus**

typedef enum \_PwLVISStatus **EPWER\_LVI\_STATUS**

typedef struct [\\_PwCompleteAck](#) **StartCompleteAck**

typedef struct [\\_SS\\_PSCurrentState](#) **SS\_PSCurrentState**

### Enumerations

enum **\_PwLVISStatus** { **ePwSrvLVI\_Status\_InActive**, **ePwSrvLVI\_Status\_Active** }

### Variables

const UI\_32 **MaxTestCaseName** = \*\*\*

```
const UI_32 MaxRespMsg = ***
```

---

### **Detailed Description**

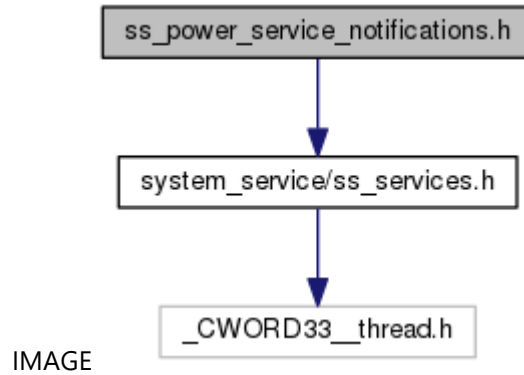
This file supports the Power Service interface.

## ss\_power\_service\_notifications.h File Reference

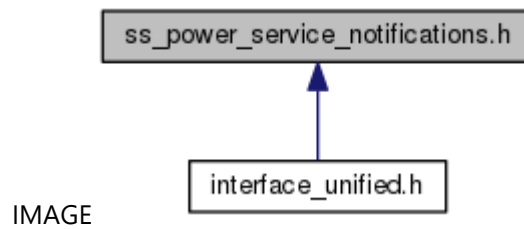
This file supports the Power Service interface.

```
#include "system_service/ss_services.h"
```

Include dependency graph for ss\_power\_service\_notifications.h:



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



### Macros

```
#define szNTFY PowerAvailability SERVICE_POWER"/Availability"
```

*Indicated if Power Service is available or not portion of this message is BOOL.*

---

### Detailed Description

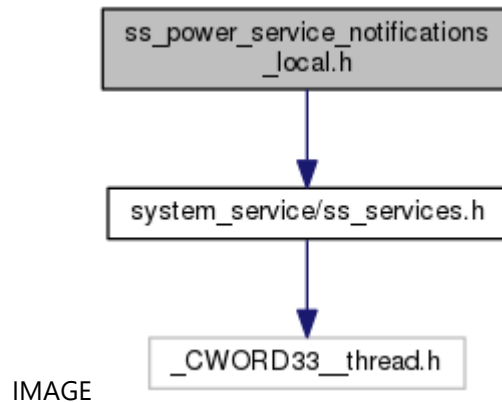
This file supports the Power Service interface.

## ss\_power\_service\_notifications\_local.h File Reference

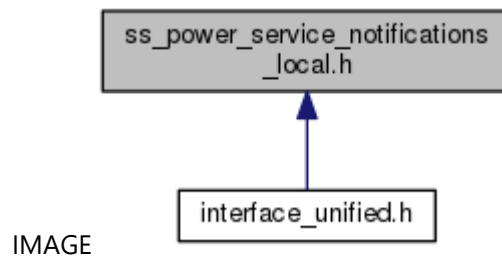
This file supports the Power Service interface.

```
#include "system_service/ss_services.h"
```

Include dependency graph for ss\_power\_service\_notifications\_local.h:



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



### Macros

```
#define szNTFY PowerLVI1 SERVICE_POWER"/LVI1"
```

*Deprecated !!*

```
#define szNTFY PowerLVI2 SERVICE_POWER"/LVI2"
```

*Deprecated !!*

```
#define szNTFY PowerLevel SERVICE_POWER"/Level"
```

*Indicates the current power level state.*

```
#define szNTFY ShutdownPopup SERVICE_POWER"/ShutdownPopup"
```

```
#define szNTFY PowerPopup SERVICE_POWER"/PowerPopup"
```

---

### Detailed Description

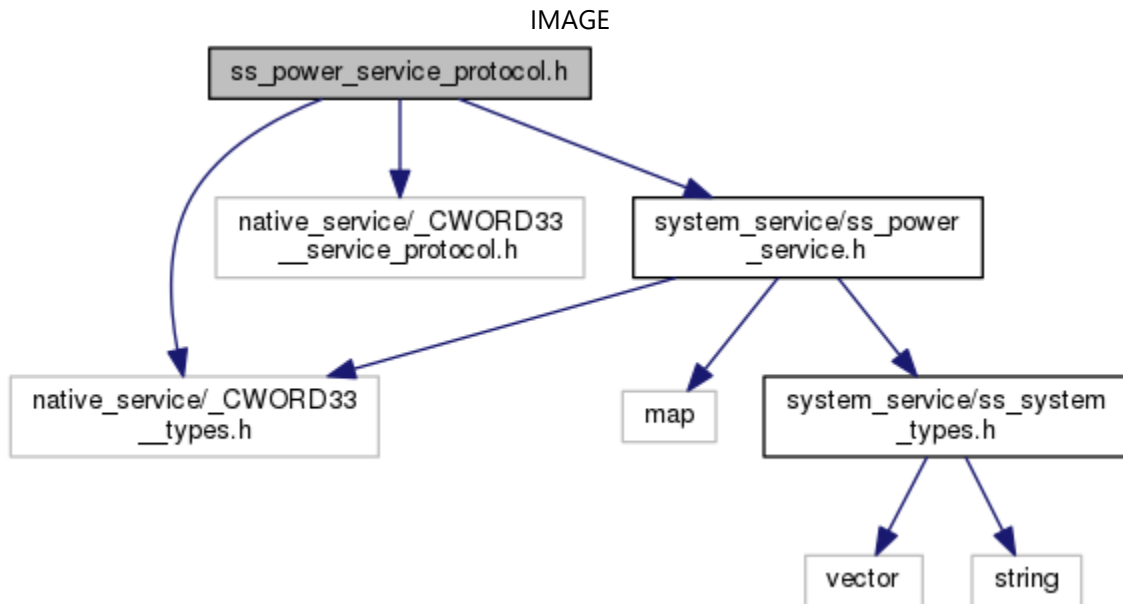
This file supports the Power Service interface.

## ss\_power\_service\_protocol.h File Reference

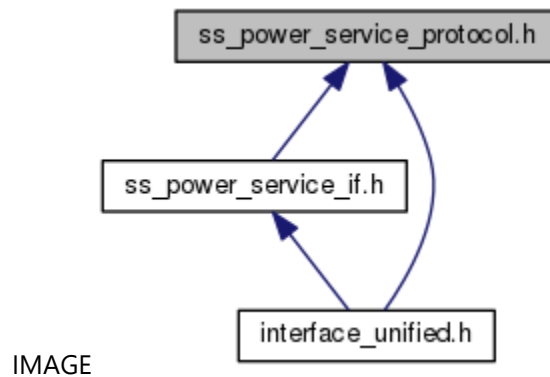
This file supports the Power Service interface.

```
#include <native_service/_CWORD33__types.h>  
#include <native_service/_CWORD33__service_protocol.h>  
#include "system_service/ss_power_service.h"
```

Include dependency graph for ss\_power\_service\_protocol.h:



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



### Typedefs

typedef enum [\\_SS\\_PowerServiceProtocol](#) [SS\\_PowerServiceProtocol](#)



## Enumerations

```
enum SS PowerServiceProtocol { SS POWER PRINT CONNECTIONS = ***,  
  SS POWER PRINT STACK = ***, SS POWER WAKEUP COMPLETE = ***,  
  SS POWER SHUTDOWN COMPLETE = ***, SS POWER VOLTAGE STATE = ***,  
  SS POWER LVI2 SHUTDOWN COMPLETE = ***, SS POWER CRANK STATE = ***,  
  SS POWER WAKEUP MODULES CMPL RSPN = ***, SS POWER SYSTEM LAUNCH COMPLETE  
  = ***, SS POWER STATE CHANGE REQ = ***, SS POWER STATE CHANGE RESP = ***,  
  SS POWER COMM WAKEUP = ***, SS POWER SHUTDOWN REQ = ***,  
  SS POWER SHUTDOWN RESP = ***, SS POWER CRNT STATE QUERY = ***,  
  SS POWER CRNT STATE QUERY RSPN = ***, SS POWER SYSTEM MODE INFO REQ = ***,  
  SS POWER SYSTEM MODE INFO RESP = ***, SS POWER INITCOMP REP = ***,  
  SS POWER PUBLISH POWER POPUP REQ, SS POWER PUBLISH POWER POPUP RESP,  
  SS POWER PUBLISH SHUTDOWN CONDITION REQ,  
  SS POWER PUBLISH SHUTDOWN CONDITION RESP,  
  SS POWER FWD START CONFIRMATION MSG REQ,  
  SS POWER FWD START CONFIRMATION MSG RESP, SS POWER POWER REQUEST MSG,  
  SS POWER SHUTDOWN REQUEST MSG, SS POWER USER MODE SET RESP,  
  SS POWER HEARTBEAT REQ, SS POWER HEARTBEAT RESP, SS POWER HARD RESET REQ }
```

---

## Detailed Description

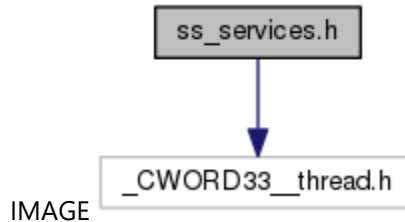
This file supports the Power Service interface.

## ss\_services.h File Reference

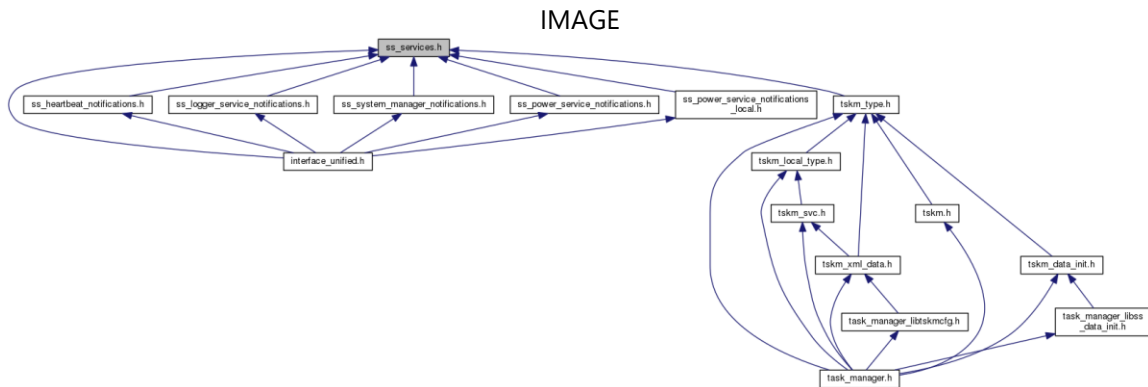
This file supports contains the queue names of all System Services processes.

```
#include <_CWORD33_thread.h>
```

Include dependency graph for ss\_services.h:



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



### Macros

```

#define SS_DEV_DETECT_THD "SS_Dev_Detect_Thd"
#define SS_DEV_DETECT_SRV MN_SS_DEVDETECTSRV
#define SS_DEV_DETECT_BSP_THD "SS_DeviceDetectErr"
#define SS_GROUP_LAUNCH_TRIGGER "SS_GroupLaunchTrigger"
#define SERVICE_HEARTBEAT "SS_HeartBeatService"
#define SERVICE_LOGGER MN_SS_LOGGERSRV
#define SS_UDEV_DEV_DETECT_DLL "SS_UDEV_DeviceDetect"
#define SS_PLM_SERVICE "SS_PLMService"
#define SERVICE_POWER MN_SS_POWERSERVICE
#define SS_RESOURCE_MONITOR_SERVICE "SS_ResourceMonitorService"
#define SERVICE_SOFTWAREUPDATE "SS_SofUpdateSrv"
#define SERVICE_SYSMANAGER MN_SS_SYSMANAGER
#define SS_WINSYS MN_SS_WINSYS
#define SS_RESOURCE_MANAGER MN_SS_RESOURCEMGR
#define SS_TASK_MANAGER MN_SS_TASKMANAGER
#define SERVICE_VUP MN_VUPSERVICE
#define SS_UPDATESERVICE MN_SS_UPDATESERVICE
  
```

---

**Detailed Description**

This file supports contains the queue names of all System Services processes.

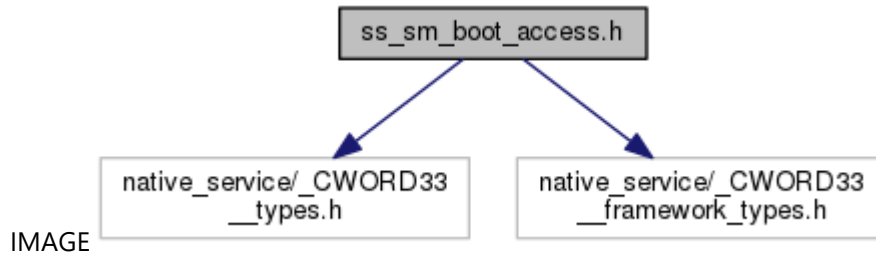
## ss\_sm\_boot\_access.h File Reference

This file provides API for get boot information from nor flash.

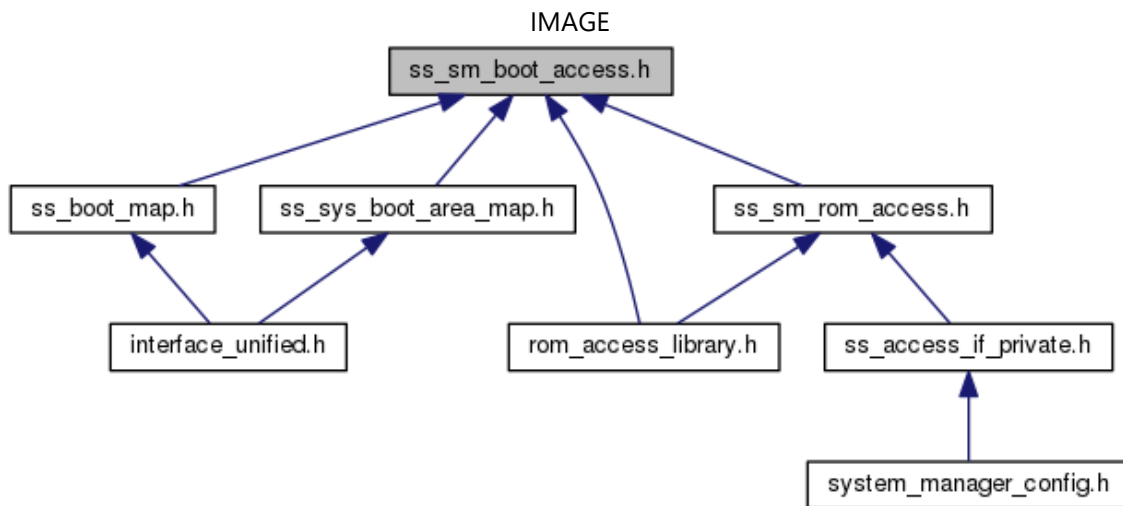
```
#include <native_service/_CWORD33_types.h>
```

```
#include <native_service/_CWORD33_framework_types.h>
```

Include dependency graph for ss\_sm\_boot\_access.h:



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



### Classes

struct [LBM\\_boot\\_wpinfo\\_t](#)

struct [LBM\\_boot\\_t](#)

struct [\\_tmb\\_ram\\_t](#)

class [BOOT\\_AccessIf](#)

### ***BOOT\_AccessIf***. Macros

```
#define LBM_UINT32 unsigned int
```

```
#define LBM_UINT16 uint16_t
```

```
#define LBM_UINT8 unsigned char
```

```
#define LBM_INT64 int64_t
```

```
#define LBM_INT32 unsigned int
```

```
#define LBM_INT16 uint16_t
```

```

#define LBM_INT8 unsigned char
#define LBM_NOR_MIRROR_SIZE 0x10000
#define LBM_DRAM_SIZE 0x10000
#define LBM_NOR_BOOT_SIZE 128
#define LBM_NOR_TSKM_SIZE 128
#define LBM_NOR_VUP_SIZE 1024
#define LBM_NOR_ANA_SIZE 32
#define LBM_NOR_VEHI_SIZE 32
#define LBM_NOR_DEVMGR_SIZE 32
#define SYSUP_DRAM_NORMAL (LBM_UINT32)0x4E524E52 /* normal value
NRNR*/
#define SYSUP_DRAM_SFERRSR (LBM_UINT32)0x73667366 /* abnormal Soft
Reset(softwareabnormality) sfsf*/
#define SYSUP_DRAM_DISCARD (LBM_UINT32)0x44434443 /* need to discard backup
DCDC*/
#define SYSUP_CND_FACTRESET (LBM_UINT16)0x434c /* COLD START */
#define SYSUP_CND_NORMAL (LBM_UINT16)0x4853 /* HOT START */
#define SYSUP_MODE_NORMAL (LBM_UINT32)0x4E524E52 /* normal mode */
#define SYSUP_MODE_VERUP (LBM_UINT32)0x56555655 /* versionup mode */
#define SUBCPU_STS_NOMAL (LBM_UINT32)0x00000000 /* Communication normal */
#define SUBCPU_STS_COMNG (LBM_UINT32)0x88888888 /* Communication abnormal */
#define SDRAM_STS_NOMAL (LBM_UINT32)0x11111111 /* backup power supply is normal */
#define SDRAM_STS_BUPNG (LBM_UINT32)0x99999999 /* backup power supply is abnormal */
#define HWDT_STS_NOMAL (LBM_UINT32)0x22222222 /* WDT normal */
#define HWDT_STS_WDTTO (LBM_UINT32)0xAAAAAAAA /* WDT time-out outbreak */
#define SWDT_STS_NOMAL HWDT_STS_NOMAL /* SWDT normal */
#define SWDT_STS_WDTTO HWDT_STS_WDTTO /* SWDT time-out outbreak */
#define IFS_PROG1_CODE (LBM_UINT8)0xAA /* Side PROG1 */
#define IFS_PROG2_CODE (LBM_UINT8)0x55 /* Side PROG2 */
#define UPTBLE_ID_MAX (LBM_UINT8)0x20 /* LBM_UPTBLINFO Maximum value */
#define UPTBLE_ID_NORBOOT (LBM_UINT8)0x00 /* NOR-BOOT ID */
#define UPTBLE_ID_SCRLDR (LBM_UINT8)0x01 /* SecureLoader ID */
#define UPTBLE_ID_NANDBOOT (LBM_UINT8)0x02 /* NAND-BOOT ID */
#define UPTBLE_ID_ROOTFS (LBM_UINT8)0x03 /* Rootfs1 ID */
#define UPTBLE_ID_ROOTF_CWORD98_ (LBM_UINT8)0x04 /* Rootf_CWORD98_ID */
#define STUP_STS_NORMAL (LBM_UINT32)0x00000000 /* normal status */
#define STUP_STS_ERROR_DETEC (LBM_UINT32)0x22222222
#define STUP_STS_UPDATING (LBM_UINT32)0x33333333 /* updating status */
#define STUP_STS_SIGNVRFY_ERROR (LBM_UINT32)0x11111111
#define UPDATE_NOTI_NONE (LBM_UINT32)0x00000000 /* Notify is NOT required. */
#define UPDATE_NOTI_EXIST (LBM_UINT32)0xEEEEEEEE /* Notify is required. */
#define RAMJUDGE_STS_NOMAL (LBM_UINT32)0x44444444 /* RAM Judge Port is High */
#define RAMJUDGE_STS_NG (LBM_UINT32)0xDDDDDDDD /* RAM Judge Port is Low */
#define SELF_REFRESH_OK (LBM_UINT32)0x55555555 /* DRAM Self Refresh is OK */
#define SELF_REFRESH_NG (LBM_UINT32)0xCCCCCCCC /* DRAM Self Refresh is NG */
#define PRODUCTROM (LBM_UINT32)0x11111111
#define RELEASEROM (LBM_UINT32)0x22222222
#define RELEASEROM_REMAIN_USBBOOT (LBM_UINT32)0x44444444

```

```
#define DEBUGROM (LBM_UINT32)0x88888888
#define WRITE_NONE (LBM_UINT32)0x00000000
#define WRITE_DONE (LBM_UINT32)0x11111111
#define DEFAULT_OPIMAGE_DRAM_BACKUPED (LBM_UINT32)0x00000000
#define DEFAULT_OPIMAGE_FROM_EMMC (LBM_UINT32)0xAAAAAAAA
#define SPECIFIC_OPIMAGE_DRAM_BACKUPED (LBM_UINT32)0x11111111
#define SPECIFIC_OPIMAGE_FROM_EMMC (LBM_UINT32)0xBBBBBBBB
#define SPECIFIC_OPIMAGE_FLAG_NONE (LBM_UINT32)0x00000000
#define SPECIFIC_OPIMAGE_FILE_NONE (LBM_UINT32)0x11111111
#define SPECIFIC_OPIMAGE_FILESIZE_0 (LBM_UINT32)0x22222222
#define SPECIFIC_OPIMAGE_FILE_EXIST (LBM_UINT32)0xEEEEEEEE
#define SS_SYS_AREA_BOOT_MAX_SIZE (0x00010000UL)
#define SS_SYS_AREA_ROM_OFFSET (0x00010000UL)
#define SS_SYS_AREA_ROM_MAX_SIZE (0x00001000UL)
#define SS_SYS_AREA_RAM_OFFSET (0x00011000UL)
#define SS_SYS_AREA_RAM_MAX_SIZE (0x00001000UL)
```

### Typedefs

```
typedef struct LBM\_boot\_wpinfo\_t LBM_UPTBLINFO
typedef struct LBM\_boot\_t LBM_NOR_t
typedef struct tmb\_ram\_t LBM_RAM_t
```

### Enumerations

```
enum BAI\_OPEN\_t { BAI_OPEN_RO, BAI_OPEN_RW }
```

---

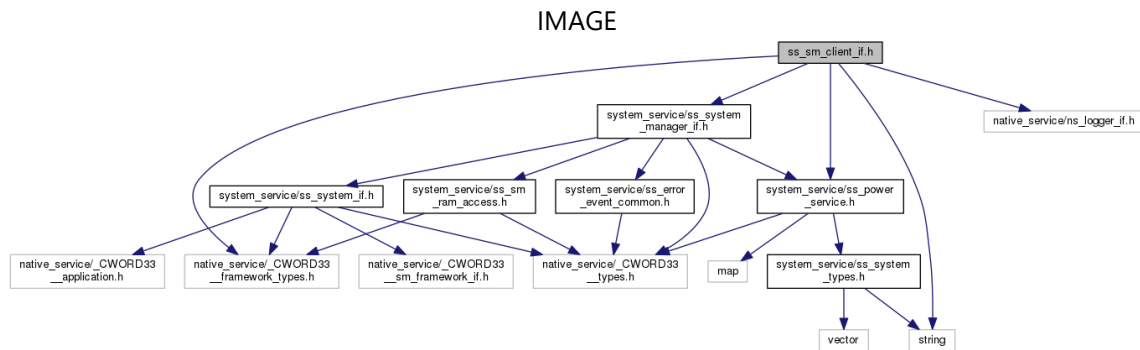
### Detailed Description

This file provides API for get boot information from nor flash.

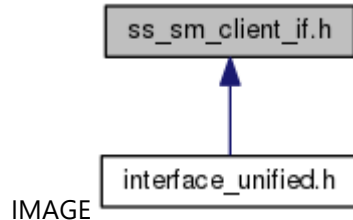
## ss\_sm\_client\_if.h File Reference

This file supports the \_CWORD3\_002 framework client interface to System manager.

```
#include <native_service/_CWORD33_framework_types.h>
#include <native_service/ns_logger_if.h>
#include <string>
#include "system_service/ss_power_service.h"
#include "system_service/ss_system_manager_if.h"
Include dependency graph for ss_sm_client_if.h:
```



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



### Macros

```
#define SSDEBUGDUMP(args...) (SendDebugDumpResponseToSystemManager(TRUE, ## args))
    Redirect either formatted, or unformatted response output to System Manager.
#define SSDEBUGDUMP\_RAW(args...) (SendDebugDumpResponseToSystemManager(FALSE, ##
    args))
```

### Functions

```
E_CWORD33_Status RegisterSMSessionAckCallback (E_CWORD33_Status>(*CallbackPtr)(HANDLE))
E_CWORD33_Status SendBootModeSetRequestToSystemManager (ESMBootModeInfo
    hostBootMode)
E_CWORD33_Status SetDataResetModeToSystemManager (ESMDataResetModeInfo
    dataResetMode)
E_CWORD33_Status SetProgUpdateStateToSystemManager (SMProgUpdateState
    progUpdateState)
```

E\_CWORD33\_Status [SendCpuResetRequestToSystemManager](#) ([ESMCpuResetReason](#) I\_eCpuResetReason, std::string f\_messageStr="", std::string f\_suffixStr="")  
 E\_CWORD33\_Status [SetBootLoaderInfoRequestToSystemManager](#) (ESMBootInfoType f\_type, UI\_32 f\_value)  
 E\_CWORD33\_Status [GetBootLoaderInfoRequestToSystemManager](#) (void \*p\_info)  
 E\_CWORD33\_Status [SetWakeupOrderToSystemManager](#) (std::string f\_orderName)  
 E\_CWORD33\_Status [SetNextWakeupTypeToSystemManager](#) ([ESMNextWakeupType](#) f\_wakeupType)  
 E\_CWORD33\_Status [SendVarCodeDataToSystemManager](#) (UI\_32 f\_uiLength, void \*f\_data)  
 VOID [Set UseStopCompleteNotificationVs CWORD33 OnStopFnc StateVar](#) (BOOL f\_SetTrue)  
 E\_CWORD33\_Status [SendUserInvokedLoggingRequestToSystemManager](#) ([eSMUserLogType](#) f\_userInvokedLogType, std::string f\_messageStr="", std::string f\_suffixStr="")  
 E\_CWORD33\_Status [Send CWORD33 OnStopResponseToSystemManager](#) (E\_CWORD33\_Status f\_eStatus)  
 E\_CWORD33\_Status [Get CWORD33 OnStartExtInfo](#) ([T SS SM START ExtDataStructType](#) &f\_info)  
 E\_CWORD33\_Status [Get CWORD33 OnStopExtInfo](#) ([T SS SM STOP ExtDataStructType](#) &f\_info)  
 void SendDebugDumpResponseToSystemManager(BOOL f\_bFormatStrRequired, PCSTR f\_cFormat,...) E\_CWORD33\_Status Send\_CWORD33\_EmmcLogsRequestToSystemManager(std E\_CWORD33\_Status [SendClearLogsRequestToSystemManager](#) ([TSystemManagerClearLogsInfo](#) \*f\_info)  
 E\_CWORD33\_Status [AttachCallbackToSystemManager](#) (HANDLE hApp, UI\_32 iCmd, CbFuncPtr fpOnCmd)  
*AttachCallbackToSystemManager.*  
 E\_CWORD33\_Status [DetachCallbacksFrom CWORD33 Dispatcher](#) (HANDLE hApp, PCSTR pServiceName, const \_CWORD33\_ProtocolCallbackHandler \*pMsgHandler, UI\_32 uiHandlerCount, HANDLE hSession=NULL)  
*Set of complementary detach functions that accept same arguments as the \_CWORD33\_Attach\_XYZ\_ToDispatcher() functions do.*  
 E\_CWORD33\_Status [DetachParentCallbacksFrom CWORD33 Dispatcher](#) (HANDLE hChildApp, const \_CWORD33\_ProtocolCallbackHandler \*pMsgHandler, UI\_32 uiHandlerCount)

HANDLE [GetSystemManagerSessionHandle](#) (void)  
*GetSystemManagerSessionHandle.*  
 E\_CWORD33\_Status [SendShutdownToSystemManager](#) ([Pwr ServiceSetInterface](#) \*pData)  
*SendShutdownToSystemManager.*  
 E\_CWORD33\_Status [SendSystemModeRequestToSystemManager](#) (void)  
*SendSystemModeRequestToSystemManager.*  
 E\_CWORD33\_Status [SendInitCompReportToSystemManager](#) (void)  
*SendInitCompReportToSystemManager.*  
 E\_CWORD33\_Status [SendWakeUpToSystemManager](#) ([wakeInfo](#) \*pData)  
*SendWakeUpToSystemManager.*  
 E\_CWORD33\_Status [SendStartupConfirmationToSystemManager](#) ([StartupConfirmationMsgStrut](#) &l\_startupConfirmationMsg)



*SendStartupConfirmationToSystemManager.*

E\_CWORD33\_Status [SendSystemErrorToSystemManager](#) (E\_CWORD33\_SystemError f\_systemError)  
*SendSystemErrorToSystemManager.*

E\_CWORD33\_Status [Send\\_CWORD56\\_HeartBeatRequestToSystemManager](#)  
 (EPWR\_HB\_REQ\_MSG\_STRUCT f\_HbReq)  
*Send\_CWORD56\_HeartBeatRequestToSystemManager.*

E\_CWORD33\_Status [SendBootMicroResetNotificationToSystemManager](#)  
 (eSMBootMicroResetReason ResetReason)  
*SendBootMicroResetNotificationToSystemManager.*

E\_CWORD33\_Status [SendDiagLoggingRequestToSystemManager](#) (std::string f\_copyDestPathStr)  
*SendDiagLogEventRequestToSystemManager.*

E\_CWORD33\_Status [SendCANLoggingRequestToSystemManager](#) (void)  
*SendCANLoggingRequestToSystemManager.*

E\_CWORD33\_Status [SendDTCLoggingRequestToSystemManager](#) (UI\_32 f\_dtc)  
*SendDTCLoggingRequestToSystemManager.*

E\_CWORD33\_Status [RegisterBootMicroLogRequestCb](#) (HANDLE hApp, CbFuncPtr fpOnCmd)  
*RegisterBootMicroLogRequestCb.*

E\_CWORD33\_Status [SendBootMicroLogResponseToSystemManager](#) (std::string f\_logString)  
*SendBootMicroLogResponseToSystemManager.*

E\_CWORD33\_Status [SendLogStartRequestToSystemManager](#) (EErrorEventType f\_errorEventType)  
*SendLogStartRequestToSystemManager.*

E\_CWORD33\_Status [SendLogArtifactRequestToSystemManager](#) (EArtifactId f\_artifactId)  
*SendLogArtifactRequestToSystemManager.*

E\_CWORD33\_Status [SendLogCompleteRequestToSystemManager](#) (E\_CWORD33\_Status  
 f\_eStatus=e\_CWORD33\_StatusOK)  
*SendLogCompleteRequestToSystemManager.*

E\_CWORD33\_Status [SendEelExportRequestToSystemManager](#) (std::string f\_path)  
*SendEelExportRequestToSystemManager.*

E\_CWORD33\_Status [OnSystemManagerDebugDump](#) (HANDLE hApp)  
*DebugDump request callback function.*

---

### Detailed Description

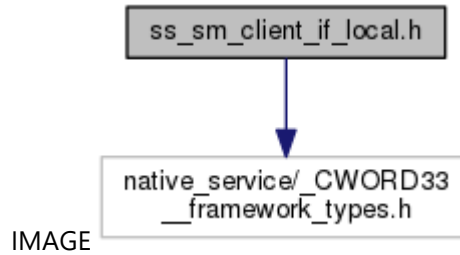
This file supports the \_CWORD3\_002 framework client interface to System manager.

## ss\_sm\_client\_if\_local.h File Reference

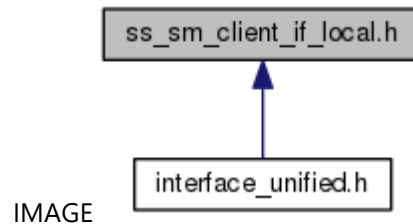
This file supports the api of debug dump response to System Manager.

```
#include <native_service/_CWORD33__framework_types.h>
```

Include dependency graph for ss\_sm\_client\_if\_local.h:



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



### Functions

VOID **SendDebugDumpResponseToSystemManager** (std::string &f\_messageStr)

---

### Detailed Description

This file supports the api of debug dump response to System Manager.

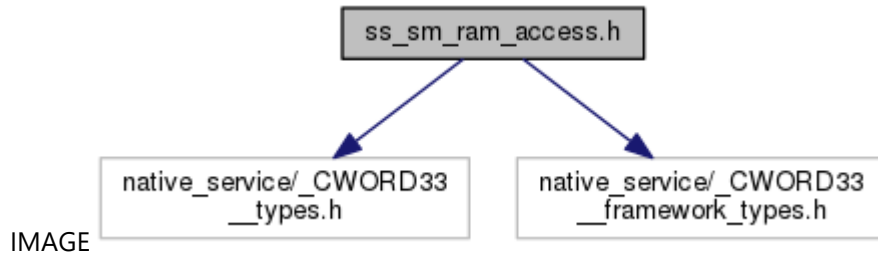
## ss\_sm\_ram\_access.h File Reference

This file provides API for get ram information from extension memory.

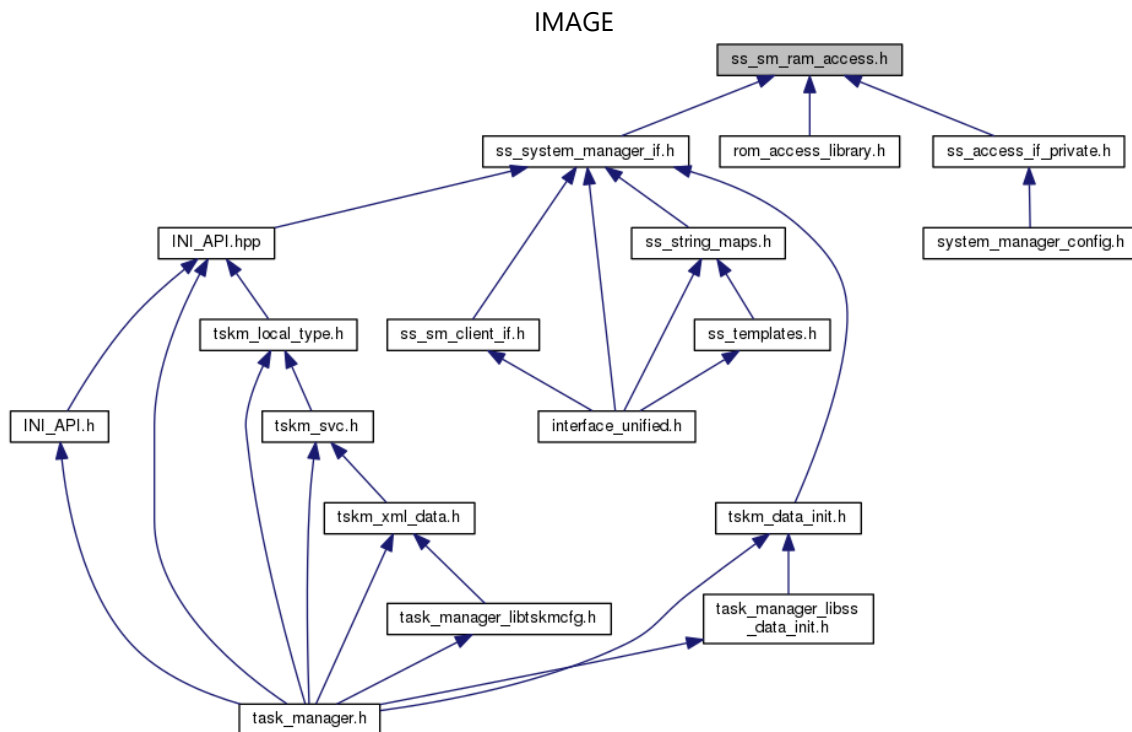
```
#include <native_service/_CWORD33_types.h>
```

```
#include <native_service/_CWORD33_framework_types.h>
```

Include dependency graph for ss\_sm\_ram\_access.h:



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



### Classes

struct [RAM SM INFO t](#)

class [RAM Accesslf](#)

### **[RAM Accesslf](#). Macros**

```
#define RAM PRODUCT PRIVATE MAX (96)
```

```
#define SS SM ORDER NAME MAX (32)
```

## Enumerations

```
enum RAM\_WAKEUP\_STATE { RAM_WAKEUP_STATE_DONT_CARE = ***,  
    RAM_WAKEUP_STATE_BACKUP_NG, RAM_WAKEUP_STATE_BATTERY_DOWN }
```

---

## Detailed Description

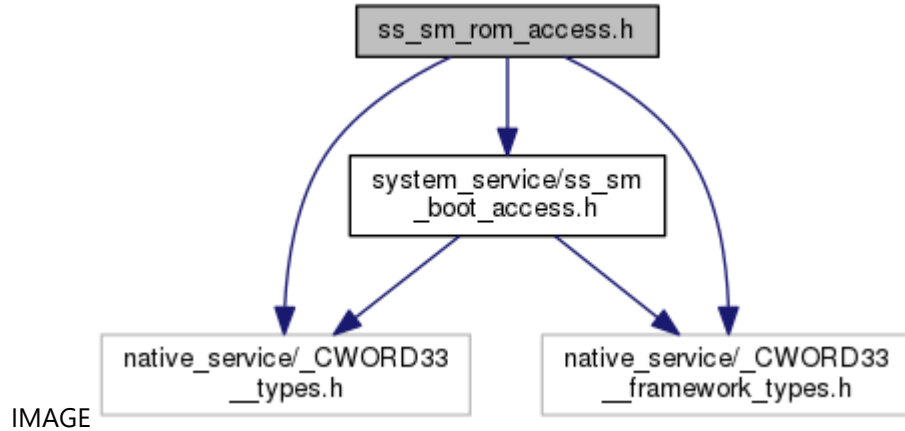
This file provides API for get ram information from extension memory.

## ss\_sm\_rom\_access.h File Reference

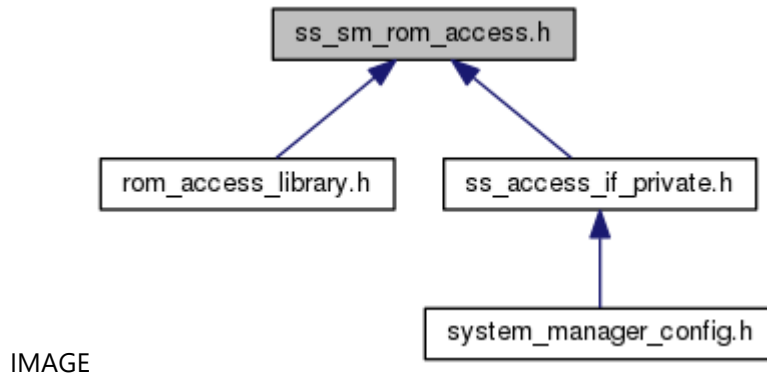
This file provides API for get rom information from extension memory.

```
#include <native_service/_CWORD33_types.h>  
#include <native_service/_CWORD33_framework_types.h>  
#include "system_service/ss_sm_boot_access.h"
```

Include dependency graph for ss\_sm\_rom\_access.h:



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



### Classes

class [ROM AccessIf](#)

### **ROM AccessIf**. Macros

```
#define ROM\_PRODUCT\_PRIVATE\_MAX 128
```

### Typedefs

```
typedef uint32_t EPROGUPDATE\_STATE
```

### Enumerations

```
enum EBOOT\_MODE { APPLICATION_MODE = ***, PROGRAMMING_MODE }
```

```
enum EACTIVE\_FLASHLOADER { NEW_FLASHLOADER = ***, OLD_FLASHLOADER }
enum EUSER\_MODE { USER_OFF = ***, USER_ON }
enum ECONTROL\_MODE { DISABLE_MODE = ***, ENABLE_MODE }
enum EDATARESET\_MODE { DATARESET_NONE = ***, DATARESET_USER,  
  DATARESET_FACTORY }
enum ELASTILGRESET\_MODE { LAST_ILGRESET_NORMAL = ***, LAST_ILGRESET_NG }
enum ENEXT\_WAKEUP\_TYPE { NEXT_WAKEUP_TYPE_NONE = ***, NEXT_WAKEUP_TYPE_COLD,  
  NEXT_WAKEUP_TYPE_HOT }
enum DRAM\_BACKUP\_STATE { DRAM_BACKUP_STATE_OK = ***, DRAM_BACKUP_STATE_NG }
```

---

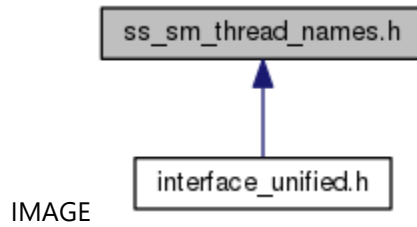
### **Detailed Description**

This file provides API for get rom information from extension memory.

## ss\_sm\_thread\_names.h File Reference

This file supports System Manager thread naming.

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



### Macros

```
#define SS_SMHeartbeat "SM.Heartbeat"
```

---

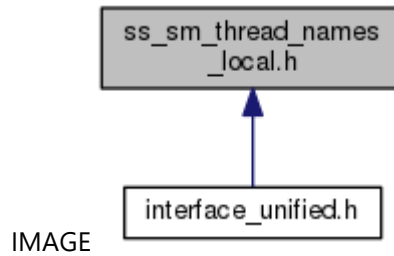
### Detailed Description

This file supports System Manager thread naming.

## ss\_sm\_thread\_names\_local.h File Reference

This file supports System Manager thread naming.

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



### Macros

```
#define SS_SMLauncher "SM.ProcLaunch"  
#define SS_SMLowMemMonitor "SM.LowMemMon"
```

---

### Detailed Description

This file supports System Manager thread naming.

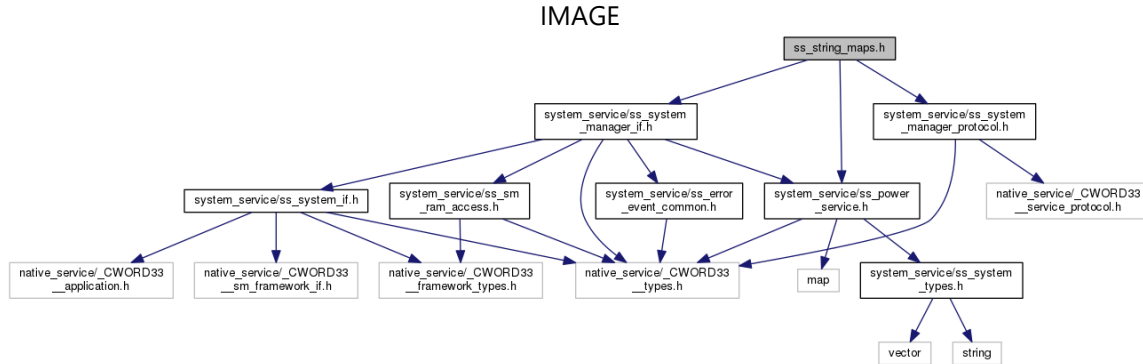


## ss\_string\_maps.h File Reference

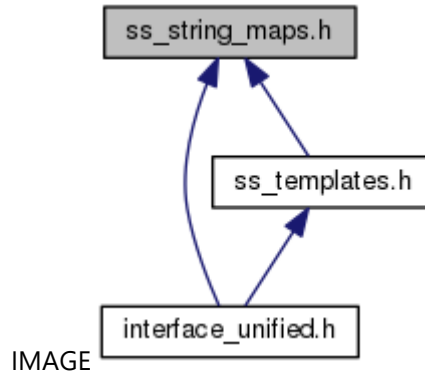
This file supports the a generic `std::map<std::string>` wrapper.

```
#include "system_service/ss_power_service.h"
#include "system_service/ss_system_manager_if.h"
#include "system_service/ss_system_manager_protocol.h"
```

Include dependency graph for `ss_string_maps.h`:



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



### Functions

- SS\_String [GetStr](#) (BOOL f\_enum)
- SS\_String [GetStr](#) (EErrorEventType f\_enum)
- SS\_String [GetStr](#) (E\_CWORD33\_SystemError f\_enum)
- SS\_String [GetStr](#) (EPWR\_LHC\_TYPE f\_enum)
- SS\_String [GetStr](#) (EPWR\_PROD\_MODE\_TYPE f\_enum)
- SS\_String [GetStr](#) (EPWR\_SC\_COLD\_START\_REQ\_TYPE f\_enum)
- SS\_String [GetStr](#) (EPWR\_SC\_CWORD56\_BOOT\_MODE\_TYPE f\_enum)
- SS\_String [GetStr](#) (EPWR\_SHUTDOWN\_TRIGGER\_TYPE f\_enum)
- SS\_String [GetStr](#) (EPWR\_STARTUP\_STAGE\_TYPE f\_enum)
- SS\_String [GetStr](#) (EPWR\_SYSTEM\_MODE\_INFO f\_enum)
- SS\_String [GetStr](#) (EPWR\_TRANSPORT\_MODE\_TYPE f\_enum)

SS\_String [GetStr](#) (EPWR\_USER\_MODE\_CHANGE\_REASON\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_USER\_MODE\_TYPE f\_enum)  
SS\_String [GetStr](#) (EPWR\_WAKEUP\_FACTOR\_TYPE f\_enum)  
SS\_String [GetStr](#) (E\_CWORD33\_Status f\_enum)  
SS\_String [GetStr](#) ([ESMBootModelInfo](#) f\_enum)  
SS\_String [GetStr](#) ([ESMCpuResetReason](#) f\_enum)  
SS\_String [GetStr](#) ([SS\\_SystemManagerProtocol](#) f\_enum)

---

### **Detailed Description**

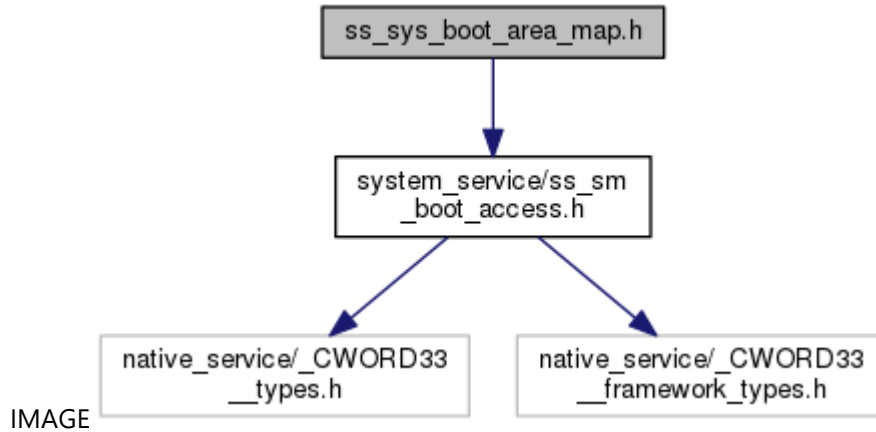
This file supports the a generic `std::map<std::string>` wrapper.

## ss\_sys\_boot\_area\_map.h File Reference

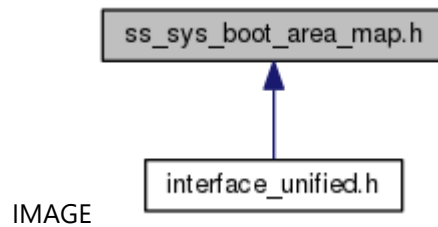
This file supports system area type definitions.

```
#include <system_service/ss_sm_boot_access.h>
```

Include dependency graph for ss\_sys\_boot\_area\_map.h:



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



---

### Detailed Description

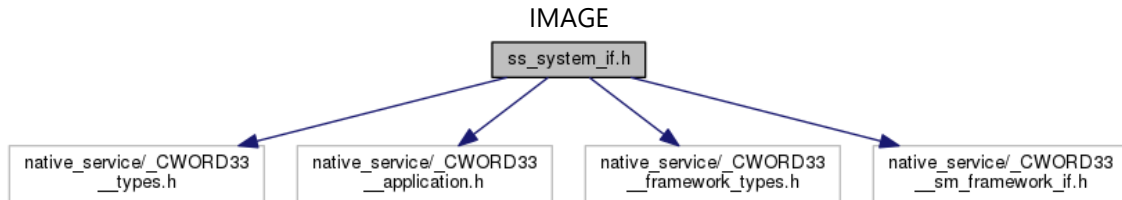
This file supports system area type definitions.

## ss\_system\_if.h File Reference

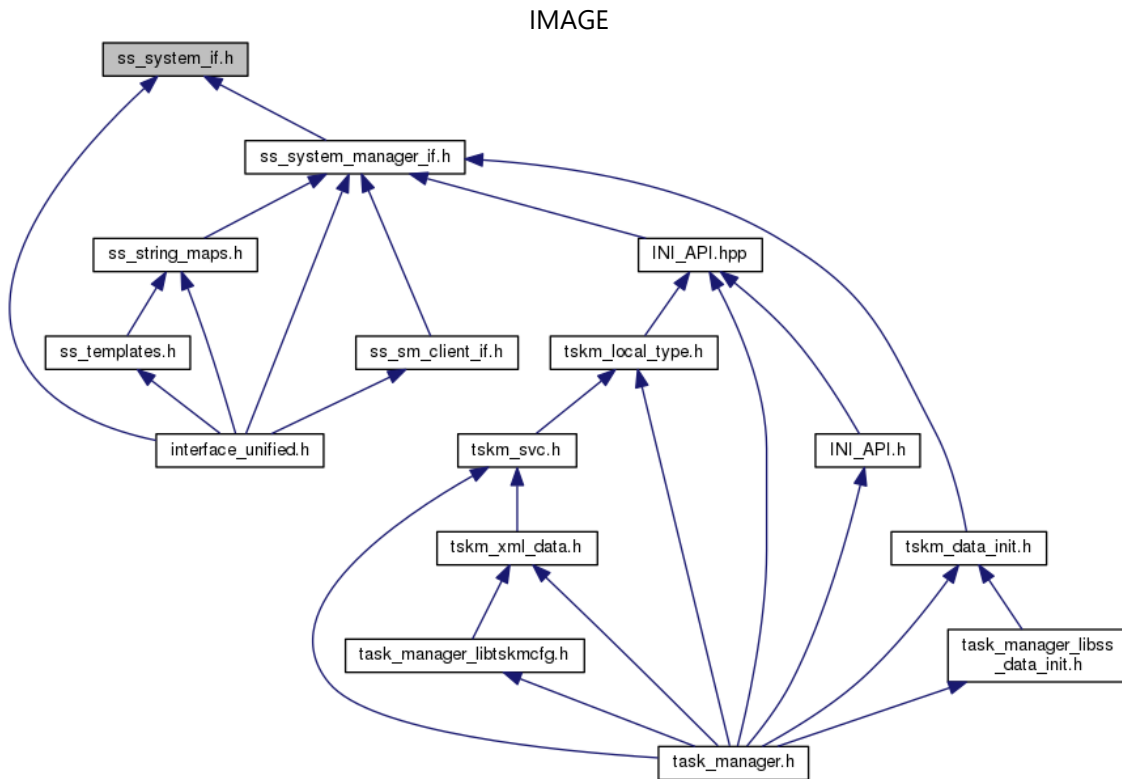
This file contains api build the session of heartbeat observation system manager.

```
#include <native_service/_CWORD33_types.h>  
#include <native_service/_CWORD33_application.h>  
#include <native_service/_CWORD33_framework_types.h>  
#include <native_service/_CWORD33_sm_framework_if.h>
```

Include dependency graph for ss\_system\_if.h:



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



### Macros

```
#define _CWORD33_MAKE_DEFAULT_CALLBACK(x)
```

**Functions**

E\_CWORD33\_Status **\_CWORD33\_SSFrameworkInterface** (HANDLE hApp)

---

**Detailed Description**

This file contains api build the session of heartbeat observation system manager.

## ss\_system\_manager\_conf.h File Reference

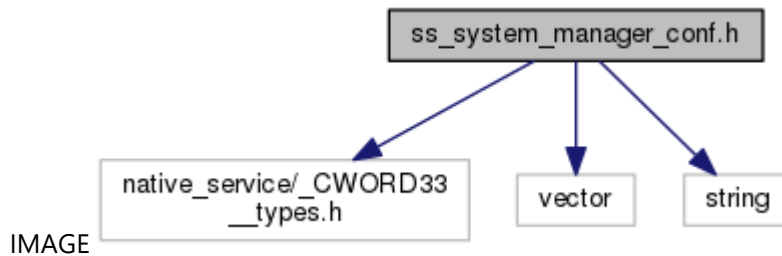
This file contains declaration of structures `T_SS_SM_INIT_HOOK_IN_PARAM`, [T\\_SS\\_SM\\_INIT\\_HOOK\\_OUT\\_PARAM](#) and api initial Hook.

```
#include <native_service/_CWORD33__types.h>
```

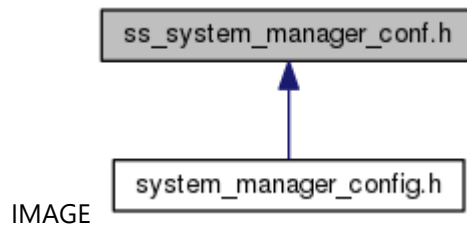
```
#include <vector>
```

```
#include <string>
```

Include dependency graph for `ss_system_manager_conf.h`:



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



### Classes

struct [T\\_SS\\_SM\\_INIT\\_HOOK](#)

*Version up mode, Callback function.* struct [T\\_SS\\_SM\\_INIT\\_HOOK\\_OUT\\_PARAM](#)

*Not in OOM Killer's service object, Group Relaunch service.* [More...](#)

### Typedefs

typedef struct [T\\_SS\\_SM\\_INIT\\_HOOK](#) [T\\_SS\\_SM\\_INIT\\_HOOK\\_IN\\_PARAM](#)

### Functions

`E_CWORD33_Status` `ss_sm_initHook` (`HANDLE hApp`, `const` [T\\_SS\\_SM\\_INIT\\_HOOK\\_IN\\_PARAM](#) `*inPrm`, [T\\_SS\\_SM\\_INIT\\_HOOK\\_OUT\\_PARAM](#) `*outPrm`)

---

### Detailed Description

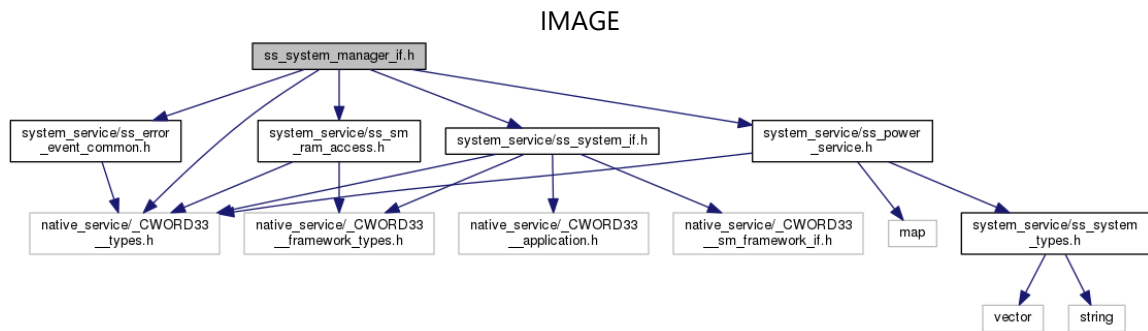
This file contains declaration of structures `T_SS_SM_INIT_HOOK_IN_PARAM`, [T\\_SS\\_SM\\_INIT\\_HOOK\\_OUT\\_PARAM](#) and api initial Hook.

## ss\_system\_manager\_if.h File Reference

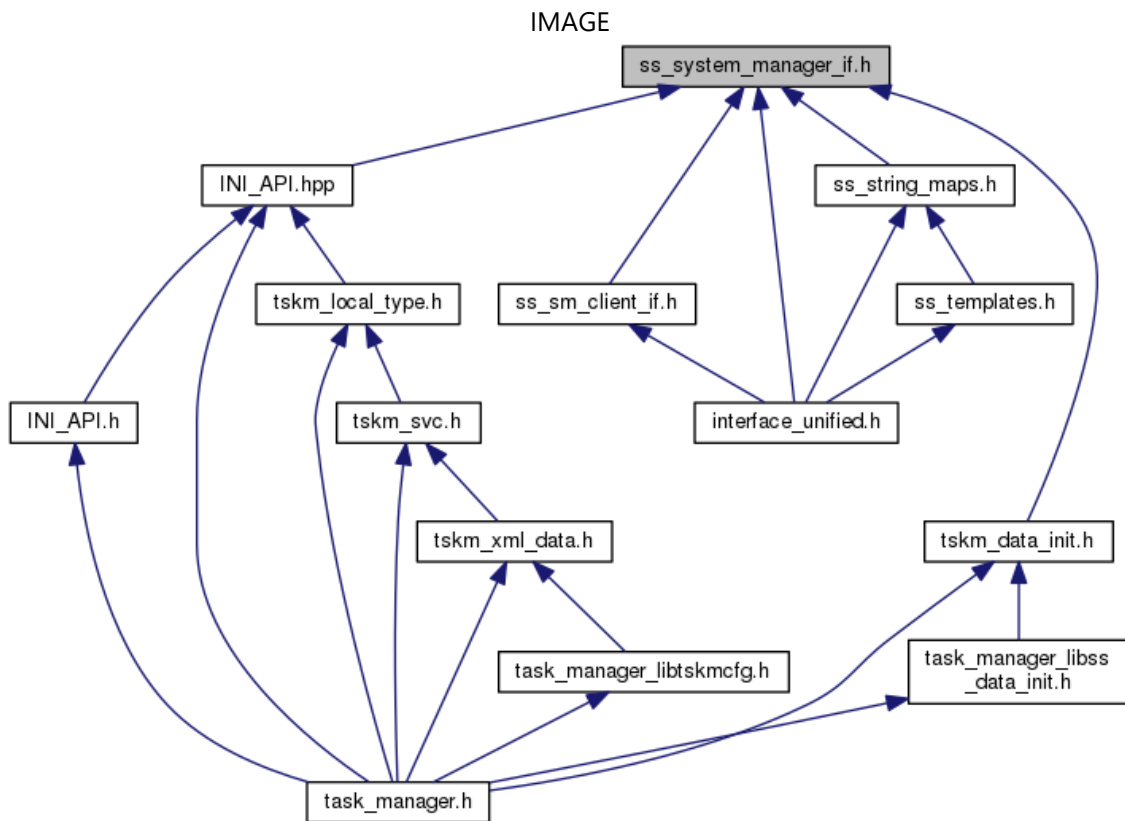
This file supports the System Manager client interface.

```
#include <native_service/_CWORD33_types.h>
#include <system_service/ss_sm_ram_access.h>
#include "system_service/ss_system_if.h"
#include "system_service/ss_error_event_common.h"
#include "system_service/ss_power_service.h"
```

Include dependency graph for ss\_system\_manager\_if.h:



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



## Classes

struct [T\\_SystemManagerCpuResetInfo](#)  
*CPU Reset Info.* struct [T\\_SystemManagerBootModeRequestResponse](#)  
struct [TSystemManagerBootInfoStruct](#)  
struct [T\\_SS\\_BootModeListStruct](#)  
*Data Reset Reason.* [More...](#)  
struct [T\\_SystemManagerWakeupOrderInfo](#)  
struct [T\\_SS\\_SM\\_UserModeOnOffNotification\\_Struct](#)  
struct [T\\_SS\\_SM\\_START\\_DataStruct](#)  
struct [T\\_SS\\_SM\\_STOP\\_DataStruct](#)  
struct [T\\_SS\\_SM\\_START\\_ExtDataStructType](#)  
struct [T\\_SS\\_SM\\_STOP\\_ExtDataStructType](#)  
struct [SMErrorEventNtfData](#)  
struct [T\\_SystemManagerLoggingRequestInfo](#)  
*Error Event Logging Info \**. [More...](#)  
struct [T\\_SystemManagerClearLogsInfo](#)  
*Error Event Clear Logs Info \**. [More...](#)

## Macros

```
#define SS_SM_PROG_UPDATE_STATE_NONE 0x0000  
#define SS_SM_PROG_UPDATE_STATE_UPDATED 0x0001  
#define SS_SM_PROG_UPDATE_STATE_MAP_UPDATED 0x0002  
#define SS_SM_PROG_UPDATE_STATE_MAPDIFF_UPDATED 0x0004  
#define SS_SM_RESET_MSG_STR_SIZE 64  
#define SS_SM_SUFFIX_STR_SIZE 32  
#define SS_SM_START_EXT_INFO_SIZE 64  
#define SS_SM_START_EXT_BODY_SIZE  
#define SS_SM_START_EXT_RSV_SIZE  
#define SS_SM_STOP_EXT_INFO_SIZE 64  
#define SS_SM_STOP_EXT_BODY_SIZE (sizeof(BOOL))  
#define SS_SM_STOP_EXT_RSV_SIZE  
#define SM_MODULE_NAME_SIZE 64  
#define SS_SM_LOG_MSG_STR_SIZE 64
```

## Typedefs

```
typedef UI_32 SMProgUpdateState  
Program update status.  
typedef struct T\_SystemManagerCpuResetInfo TSystemManagerCpuResetInfo  
CPU Reset Info.  
typedef struct T\_SystemManagerBootModeRequestResponse  
TSystemManagerBootModeRequestResponse  
typedef struct T\_SS\_BootModeListStruct TSS\_BootModeListStruct  
Data Reset Reason.  
typedef struct T\_SystemManagerWakeupOrderInfo TSystemManagerWakeupOrderInfo
```



```

typedef struct T\_SS\_SM\_UserModeOnOffNotification\_Struct
    T\_SS\_SM\_UserModeOnOffNotification\_StructType
typedef struct T\_SS\_SM\_START\_DataStruct T\_SS\_SM\_START\_DataStructType
typedef struct T\_SS\_SM\_STOP\_DataStruct T\_SS\_SM\_STOP\_DataStructType
typedef struct T\_SystemManagerLoggingRequestInfo TSystemManagerLoggingRequestInfo
    Error Event Logging Info *.
typedef struct T\_SystemManagerClearLogsInfo TSystemManagerClearLogsInfo
    Error Event Clear Logs Info *.

```

## Enumerations

```

enum ESMBootModeInfo { e\_SS\_SM\_BOOT\_MODE\_INVALID = -1,
e\_SS\_SM\_BOOT\_MODE\_APPLICATION,
e\_SS\_SM\_BOOT\_MODE\_PROGRAMMING }Boot mode information.
enum ESMDataResetModeInfo { e\_SS\_SM\_DATA\_RESET\_MODE\_NONE,
e\_SS\_SM\_DATA\_RESET\_MODE\_USER, e\_SS\_SM\_DATA\_RESET\_MODE\_FACTORY,
e\_SS\_SM\_DATA\_RESET\_MODE\_PROGUPDATE }Data reset mode information.
enum ESMNextWakeupType { e\_SS\_SM\_NEXT\_WAKEUP\_TYPE\_NONE = ***,
e\_SS\_SM\_NEXT\_WAKEUP\_TYPE\_COLD, e\_SS\_SM\_NEXT\_WAKEUP\_TYPE\_HOT }Set
Next Wakeup type information.
enum ESMDramBackupStatus { e\_SS\_SM\_DRAM\_BACKUP\_UNSET = -1,
e\_SS\_SM\_DRAM\_BACKUP\_OK, e\_SS\_SM\_DRAM\_BACKUP\_NG }DRAM backup status.
enum ESMResetStatus { e\_SS\_SM\_RESET\_STATUS\_UNSET = -1,
e\_SS\_SM\_RESET\_STATUS\_NONE, e\_SS\_SM\_RESET\_STATUS\_NG,
e\_SS\_SM\_RESET\_STATUS\_IMMEDIATE }Reset status.
enum EMRelaunchStatus { e\_SS\_SM\_RELAUNCH\_STATUS\_NONE,
e\_SS\_SM\_RELAUNCH\_STATUS\_SAFE,
e\_SS\_SM\_RELAUNCH\_STATUS\_ERR }Relaunch status.
enum ESMCpuResetReason { e\_SS\_SM\_CPU\_RESET\_REASON\_INVALID = -1,
e\_SS\_SM\_CPU\_RESET\_REASON\_NORMAL = ***,
e\_SS\_SM\_CPU\_RESET\_REASON\_DATA\_RESET,
e\_SS\_SM\_CPU\_RESET\_REASON\_USER\_FORCE\_RESET,
e\_SS\_SM\_CPU\_RESET\_REASON\_GENERIC,
e\_SS\_SM\_CPU\_RESET\_REASON\_GENERIC\_ERR =
e\_SS\_SM\_CPU\_RESET\_REASON\_GENERIC, e\_SS\_SM\_CPU\_RESET\_REASON\_DSP\_ERR,
e\_SS\_SM\_CPU\_RESET\_REASON\_IMMRESET\_NORMAL,
e\_SS\_SM\_CPU\_RESET\_REASON\_CRITICAL\_ERR }CPU Reset Reason.
enum ESMDataResetType { e\_SS\_SM\_DATA\_RESET\_TYPE\_USER = ***,
e\_SS\_SM\_DATA\_RESET\_TYPE\_FACTORY,
e\_SS\_SM\_DATA\_RESET\_TYPE\_CONFIGURATION,
e\_SS\_SM\_DATA\_RESET\_TYPE\_PROGUPDATE }Data Reset Reason.
enum ESMServiceWakeupStatus { e\_SS\_SM\_SVC\_WAKEUP\_STATUS\_COMPLETE = *** }

```

```

enum ESMBootInfoType { e_SS_SM_BOOT_INFO_MDUPDATE,
e_SS_SM_BOOT_INFO_SDUPDATE, e_SS_SM_BOOT_INFO_OPDTUPDATE }
enum eSMBootMicroResetReason { SS_SM_BOOT_MICRO_RESET_REASON_SELF_RESET = ***,
SS_SM_BOOT_MICRO_RESET_REASON_USER_FORCE_RESET,
SS_SM_BOOT_MICRO_RESET_REASON_DSP_RESET,
SS_SM_BOOT_MICRO_RESET_REASON_HB_TIMEOUT }
enum eSMUserLogType { e_SS_SM_CAPTURE_ALL_LOGS = ***, e_SS_SM_SCREEN_CAPTURE,
e_SS_SM_CAPTURE_CWORD33_LOGS, e_SS_SM_USER_FORCE_RESET,
e_SS_SM_CAPTURE_DEV_LOGS, e_SS_SM_CAPTURE_MODULE_LOGS,
e_SS_SM_CAPTURE_DTC_LOGS, e_SS_SM_CAPTURE_NAVI_LOGS,
e_SS_SM_CAPTURE_GROUP_RELAUNCH }

```

---

### Detailed Description

This file supports the System Manager client interface.

---

### Class Documentation

#### struct TSystemManagerBootInfoStruct

##### Class Members:

ESMBootInfoType	type	
UI_32	value	

#### struct T\_SystemManagerWakeupOrderInfo

##### Class Members:

char	order_name[ <a href="#">SS_SM_ORDER_NAME_MAX</a> ]	
------	--	--

#### struct SLErrorEventNtfData

##### Class Members:

EErrorEventType	EventType	
BOOL	isNeedReboot	
CHAR	ModuleName[SM_MODULE_NAME_SIZE]	

---

### Macro Definition Documentation

#### #define SS\_SM\_START\_EXT\_BODY\_SIZE

```

Value:( sizeof(BOOL) \
+ sizeof(EMRelaunchStatus) \
+ sizeof(BOOL) \

```

```
+ sizeof(BOOL) \  
)
```

```
#define SS_SM_START_EXT_RSV_SIZE
```

```
Value:SS_SM_START_EXT_INFO_SIZE \  
- SS_SM_START_EXT_BODY_SIZE
```

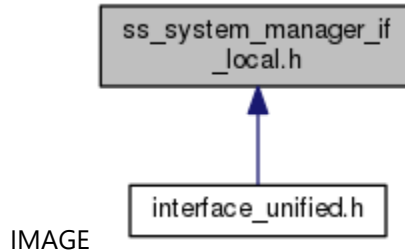
```
#define SS_SM_STOP_EXT_RSV_SIZE
```

```
Value:SS_SM_STOP_EXT_INFO_SIZE \  
- SS_SM_STOP_EXT_BODY_SIZE
```

## ss\_system\_manager\_if\_local.h File Reference

This file supports the System Manager client interface.

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



### Classes

struct [T\\_SMRequestMsg](#)

### Macros

`#define SS_MAX_NUM_MODULES (128)`

`#define SS_SM_EXIT_RELAUNCH (2)`

### Typedefs

typedef struct [T\\_SMRequestMsg](#) [TSMRequestMessage](#)

---

### Detailed Description

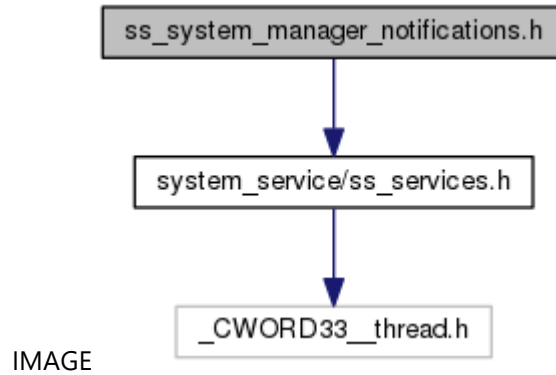
This file supports the System Manager client interface.

## ss\_system\_manager\_notifications.h File Reference

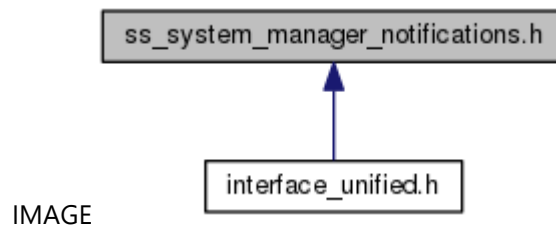
This file supports the System Manager client interface.

```
#include "system_service/ss_services.h"
```

Include dependency graph for ss\_system\_manager\_notifications.h:



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



### Macros

```
#define NTFY\_SSSystemMgrAvailability SERVICE_SYSMANAGER"/Availability"  
    System Manager availability -.
```

```
#define NTFY\_SSSystemMgrState SERVICE_SYSMANAGER"/State"  
    System Manager state - Init.,
```

```
#define NTFY\_SSSystemMgrPowerOnOff SERVICE_SYSMANAGER"/PowerOnOffState"  
    Power ON notification for.
```

```
#define NTFY\_SSSystemMgrStartUpType SERVICE_SYSMANAGER"/StartUpType"  
    Notification for start up type.
```

```
#define NTFY\_SSHUBootModes SERVICE_SYSMANAGER"/HeadUnitBootModes"  
    Notification for boot modes.
```

```
#define NTFY\_SSServiceWakeupStatus SERVICE_SYSMANAGER"/ServiceWakeupStatus"  
    Service Wakeup state.
```

```
#define NTFY\_SSNeedAplRestart SERVICE_SYSMANAGER"/NeedAplRestart"  
    Notification for Need APL Restart.
```

```
#define NTFY\_SSSystemMgrShutdownStarted SERVICE_SYSMANAGER"/ShutdownStarted"
```

---

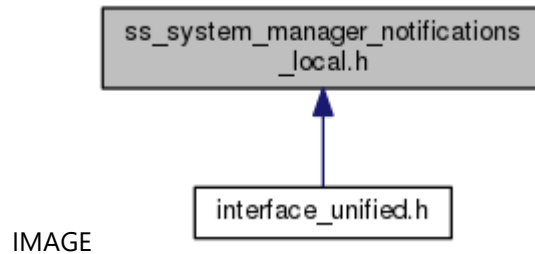
**Detailed Description**

This file supports the System Manager client interface.

## ss\_system\_manager\_notifications\_local.h File Reference

This file supports the System Manager client interface.

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



### Macros

```
#define NTFY\_SSSystemMgrUserMode SERVICE_SYSMANAGER"/UserMode"
```

```
#define NTFY\_SSSystemMgrDataReset SERVICE_SYSMANAGER"/DataReset"
```

*Notification for data reset.*

```
#define NTFY\_SSLastSourceType SERVICE_SYSMANAGER"/LastSourceType"
```

*Notification used by Audio and System Services for Dynamic Launch.*

---

### Detailed Description

This file supports the System Manager client interface.

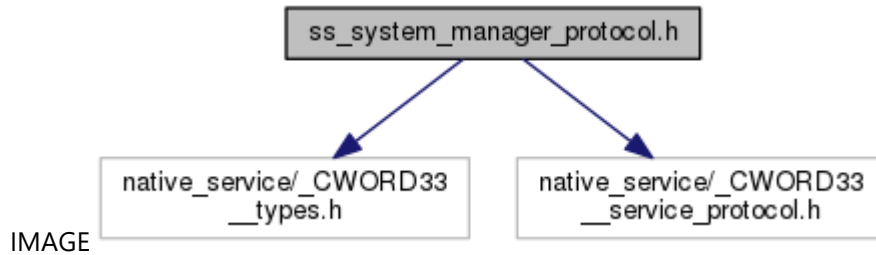
## ss\_system\_manager\_protocol.h File Reference

This file supports the System Manager client interface.

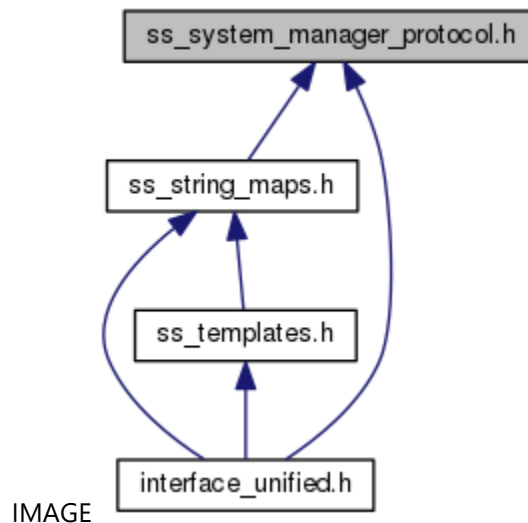
```
#include <native_service/_CWORD33__types.h>
```

```
#include <native_service/_CWORD33__service_protocol.h>
```

Include dependency graph for ss\_system\_manager\_protocol.h:



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



### Classes

struct [\\_SS\\_SMCURRENTSTATE](#)

struct [\\_SMCOMPLETEACK](#)

struct [\\_SMGROUPLAUNCHTRIGGER](#)

### Macros

```
#define SS_SM_MAX_MODULE_NAME_LENGTH (256)
```

```
#define SS_SM_MAX_TEST_CASE_NAME_SIZE (128)
```

```
#define SS_SM_MAX_RESP_MSG_SIZE (2048)
```

### Typedefs

```
typedef enum \_SS\_SystemManagerProtocol SS\_SystemManagerProtocol
```



```

typedef struct SS\_SMCURRENTSTATE SS_SMCURRENTSTATE
typedef struct SMCOMPLETEACK SMSTOPCOMPLETEACK
typedef struct SMGROUPLAUNCHTRIGGER SMGROUPLAUNCHTRIGGER

```

## Enumerations

```

enum SS\_SystemManagerProtocol { SS_SYSTEM_MANAGER_PROTOCOL_BEGINNING_INDEX
= ***, SS\_SM\_NOTIFY\_SYSTEM\_LAUNCH\_COMPLETE =
SS_SYSTEM_MANAGER_PROTOCOL_BEGINNING_INDEX,
SS_SM_PROTOCOL_INTERFACE_END, SS\_SM\_START, SS\_SM\_START\_COMPL\_RSPN,
SS\_SM\_STOP, SS\_SM\_STOP\_COMPL\_RSPN, SS\_SM\_WAKEUP\_MODULES\_CMPL\_RSPN,
SS\_SM\_SHUTDOWN\_MODULES\_CMPL\_RSPN, SS\_SM\_WAKEUP\_MODULES,
SS\_SM\_POWER\_OFF\_MODULES, SS\_SM\_SHUTDOWN\_MODULES, SS\_SM\_CRNT\_STATE\_QUERY,
SS\_SM\_CRNT\_STATE\_QUERY\_RSPN, SS\_SM\_SYSTEM\_MODE\_INFO\_REQ,
SS\_SM\_SYSTEM\_MODE\_INFO\_RSPN, SS\_SM\_INITCOMP\_REP,
SS_SM_PROTOCOL_OPEN_SESSION_REQ, SS_SM_PROTOCOL_OPEN_SESSION_ACK,
SS\_SM\_GET\_START\_EXT\_INFO, SS\_SM\_GET\_STOP\_EXT\_INFO, SS\_SM\_BOOT\_MODE\_SET\_REQ,
SS\_SM\_BOOT\_MODE\_SET\_RESP, SS\_SM\_DATA\_RESET\_MODE\_SET\_REQ,
SS\_SM\_PROG\_UPDATE\_STATE\_SET\_REQ, SS_SM_CPU_RESET_REQ,
SS_SM_LOCAL_DATA_RESET_REQ, SS_SM_REMOTE_DATA_RESET_REQ,
SS\_SM\_FWD\_STARTUP\_CONFIRMATION\_MSG\_REQ,
SS\_SM\_FWD\_START\_CONFIRMATION\_MSG\_RESP, SS\_SM\_POWER\_REQUEST\_MSG,
SS\_SM\_POWER\_REQUEST\_MSG\_RESP, SS\_SM\_USER\_MODE\_SET\_RESP,
SS_SM_DEBUG_VAR_CODE_DATA_SET_REQ, SS_SM_SET_BOOTLOADER_INFO,
SS_SM_GET_BOOTLOADER_INFO, SS_SM_WAKEUP_ORDER_SET_REQ,
SS_SM_NEXT_WAKEUP_TYPE_SET_REQ, SS\_SM\_EVENT\_ERROR,
SS\_SM\_EVENT\_ERROR\_TO\_SSL, SS\_SM\_ERROR\_EVENT\_LOGGING\_START\_REQ,
SS\_SM\_ERROR\_EVENT\_LOGGING\_START\_RSPN, SS\_SM\_ERROR\_EVENT\_ARTIFACT\_REQ,
SS\_SM\_ERROR\_EVENT\_ARTIFACT\_RSPN, SS\_SM\_ERROR\_EVENT\_LOGGING\_COMPLETE,
SS\_SM\_ERROR\_EVENT\_LOGGING\_COMPLETE\_RSPN,
SS_SM_ERROR_EVENT_TIMER_ID_LOGGER_START_REQ,
SS_SM_ERROR_EVENT_TIMER_ID_DEBUG_DUMP_RSPN,
SS_SM_ERROR_EVENT_TIMER_ID_BOOT_MICRO_LOG_RSPN,
SS_SM_ERROR_EVENT_TIMER_ID_CORE_FILE_POLL, SS\_SM\_USER\_INVOKED\_LOG\_REQ,
SS\_SM\_ERROR\_EVENT\_EEL\_EXPORT\_REQ,
SS\_SM\_ERROR\_EVENT\_CWORD33\_EMMC\_LOGS\_REQ,
SS\_SM\_ERROR\_EVENT\_CWORD33\_EMMC\_LOGS\_RSPN,
SS\_SM\_ERROR\_EVENT\_CLR\_LOGS\_REQ, SS\_SM\_ERROR\_EVENT\_PROCESS\_EXIT,
SS\_SM\_ERROR\_EVENT\_DIAG\_LOG\_REQ, SS\_SM\_ERROR\_EVENT\_CAN\_LOG\_REQ,
SS\_SM\_ERROR\_EVENT\_DTC\_LOG\_REQ, SS_SM_GROUP_LAUNCH_TRIGGER,
SS\_SM\_DEBUG\_DUMP, SS\_SM\_DEBUG\_DUMP\_RSPN, SS\_SM\_MODULE\_RELAUNCH\_REQ,
SS\_SM\_CPU\_HIGH\_LOAD\_DETECTED, SS\_SM\_PROPAGATE\_SYSTEM\_ERROR,
SS\_SM\_CWORD56\_HEARTBEAT\_REQ, SS\_SM\_CWORD56\_HEARTBEAT\_RSPN,
SS\_SM\_EVENT\_USER\_DATA\_RESET, SS\_SM\_BOOT\_MICRO\_RESET\_NTF,
SS\_SM\_BOOT\_MICRO\_LOG\_REQ, SS\_SM\_BOOT\_MICRO\_LOG\_RSP, SS\_SM\_PRE\_START,
SS\_SM\_PRE\_START\_COMPL\_RSPN, SS\_SM\_PRE\_STOP, SS\_SM\_PRE\_STOP\_COMPL\_RSPN,
SS\_SM\_BACKGROUND\_START, SS\_SM\_BACKGROUND\_START\_COMPL\_RSPN,
SS\_SM\_BACKGROUND\_STOP, SS\_SM\_BACKGROUND\_STOP\_COMPL\_RSPN,

```

```
SS_SYSTEM_MANAGER_PROTOCOL_ENDING_INDEX =  
SS_SM_BACKGROUND_STOP_COMPL_RSPN }
```

---

### **Detailed Description**

This file supports the System Manager client interface.

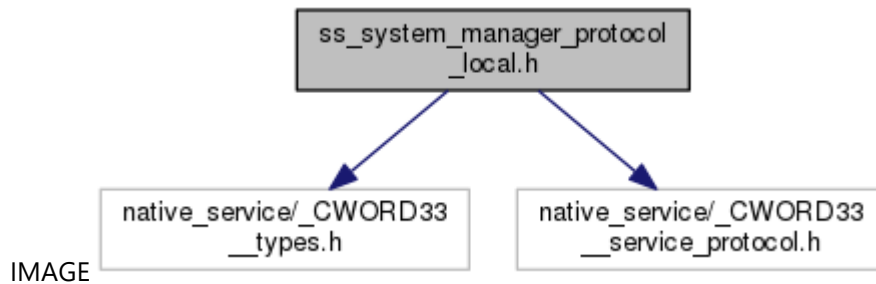
## ss\_system\_manager\_protocol\_local.h File Reference

This file supports the System Manager client interface.

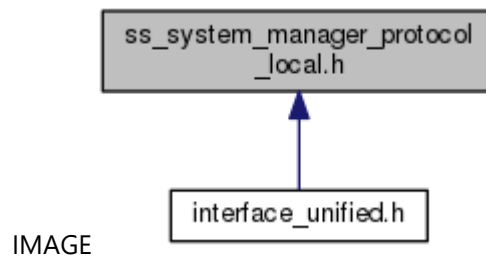
```
#include <native_service/_CWORD33__types.h>
```

```
#include <native_service/_CWORD33__service_protocol.h>
```

Include dependency graph for ss\_system\_manager\_protocol\_local.h:



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



### Macros

```
#define SS_SM_MAX_MODULE_LOG_MASK_LENGTH (50)
```

```
#define SS_SM_MAX_MODULE_PATH_LENGTH (256)
```

```
#define SS_SM_MAX_MODULE_ARGS_LENGTH (512)
```

### Typedefs

```
typedef UI_64 SS_VersionNumberType
```

---

### Detailed Description

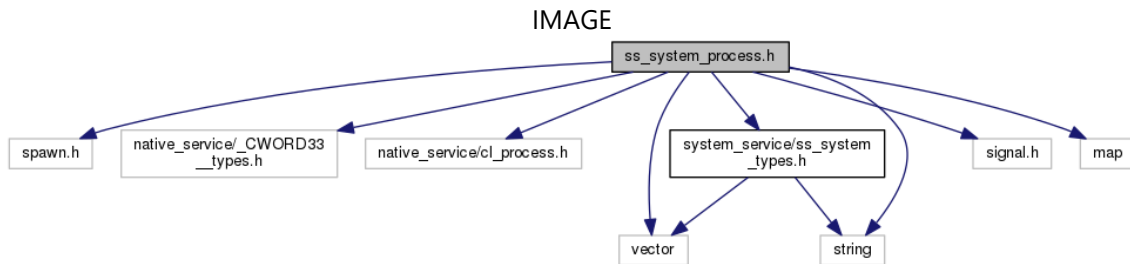
This file supports the System Manager client interface.

## ss\_system\_process.h File Reference

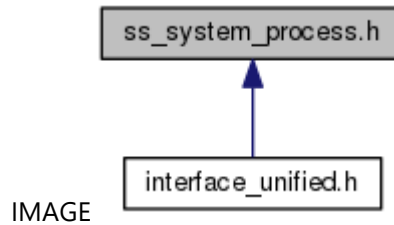
This file supports the System Manager OS process abstraction.

```
#include <spawn.h>
#include <native_service/_CWORD33_types.h>
#include <native_service/cl_process.h>
#include <system_service/ss_system_types.h>
#include <signal.h>
#include <vector>
#include <string>
#include <map>
```

Include dependency graph for ss\_system\_process.h:



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



### Classes

class [Process](#)

### Typedefs

typedef std::map< SS\_String, [Process](#) \* > **ProcessMap**

### Variables

```
const long iProcess_VALIDATION_VALUE = ***
const int iProcess_DEFAULT_PROCESS_PRIORITY = ***
const int iProcess_MAXIMUM_PROCESS_PRIORITY = ***
const long iProcess_DEFAULT_PROCESS_FLAGS
const int iProcess_MAXIMUM_NUMBER_OF_PROCESS_ARGUMENTS = ***
const int iProcess_MAXIMUM_PROCESS_NAME_LENGTH = ***
```

**Detailed Description**

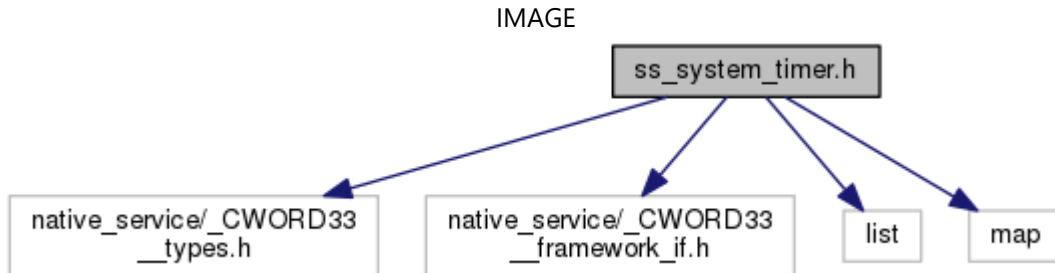
This file supports the System Manager OS process abstraction.

## ss\_system\_timer.h File Reference

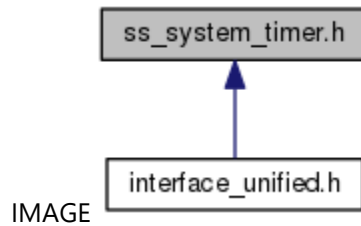
brief This file supports a generic timer abstraction.

```
#include <native_service/_CWORD33_types.h>
#include <native_service/_CWORD33_framework_if.h>
#include <list>
#include <map>
```

Include dependency graph for ss\_system\_timer.h:



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



### Classes

class [Timer](#)

[Timer](#). class [TimerCtrl](#)

### OSprocess. Variables

```
const PCSTR TIMER_SERVICE_NAME = "TIMER"
```

---

### Detailed Description

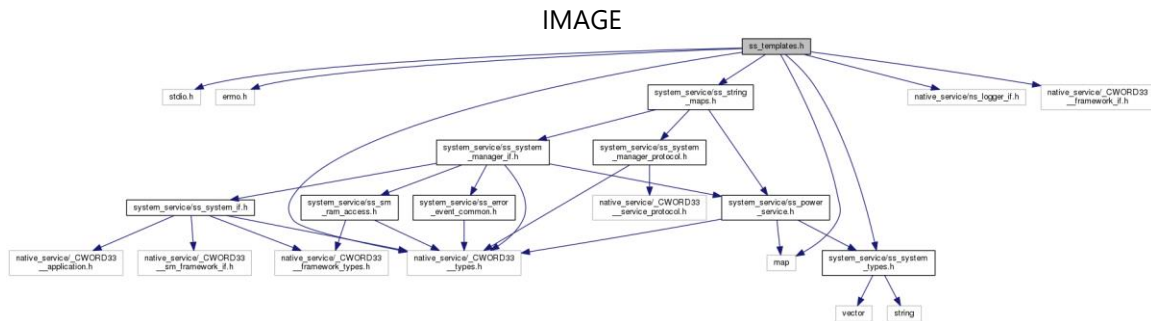
brief This file supports a generic timer abstraction.



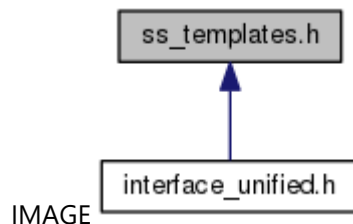
## ss\_templates.h File Reference

This file supports templates for high use common tasks.

```
#include <stdio.h>
#include <errno.h>
#include <native_service/_CWORD33_types.h>
#include <native_service/ns_logger_if.h>
#include <native_service/_CWORD33_framework_if.h>
#include <map>
#include "system_service/ss_system_types.h"
#include "system_service/ss_string_maps.h"
Include dependency graph for ss_templates.h:
```



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



### Classes

class [EnumStringMap< enumT, fp >](#)

#### [EnumStringMap](#). Macros

```
#define ZONE_ERR ZONEMASK(31)
#define LOG_ERROR(pStr)
#define LOG_SUCCESS(pStr) _CWORD33_LOG(ZONE_INFO, __FUNCTION__, " %s successful",
    pStr);
#define LOG STATUS(l_eStatus, pStr)
#define CALL AND LOG STATUS(fnc)
#define LOG STATUS IF ERRORED(l_eStatus, pStr)
#define CALL AND LOG STATUS IF ERRORED(fnc)
#define MAP_ENTRY(f_map, f_enum) f_map[ f_enum ] = #f_enum
```



```
#define CWORD33\_LOG\_RECEIVED\_FROM(hApp) _CWORD33_LOG(ZONE_INFO, __FUNCTION__,  
    " Received from %s", _CWORD33_GetMsgSrc(hApp))  
#define CWORD33\_LOG\_WHEN\_COMPILED  
#define SS_ASSERT(x)  
#define SS_ASSERT_ERRNO(x)  
#define SS_ASSERT_LOG(x, fmt, ...)  
#define SS_STATIC_ASSERT(expr)
```

## Functions

```
template<typename T > E_CWORD33_Status ReadMsg (HANDLE hApp, T &Data,  
    ESMRRetrieveTypes f_eRetrieveMethod=eSMRRelease)
```

---

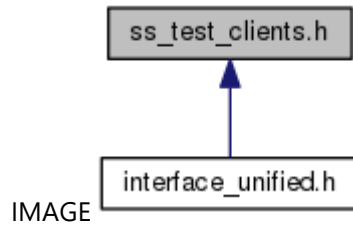
## Detailed Description

This file supports templates for high use common tasks.

## ss\_test\_clients.h File Reference

This file supports test client queue names.

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



### Macros

```
#define TC_Power "PwrTestClient"  
#define TC_SysManager "SMTTestClient"
```

---

### Detailed Description

This file supports test client queue names.

## ss\_ver.h File Reference

This file supports [CSSVer](#) class, This class is a generic [CSSVer](#) abstraction.

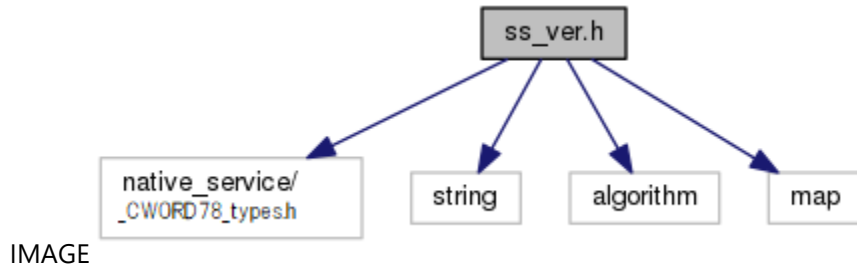
```
#include <native_service/_CWORD78_types.h>
```

```
#include <string>
```

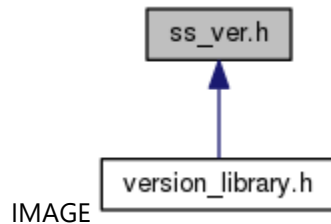
```
#include <algorithm>
```

```
#include <map>
```

Include dependency graph for ss\_ver.h:



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



### Classes

struct [SSVER\\_PkgInfo](#)

*The structure of version package information. [More...](#)*

class [CSSVer](#)

**Version information set-up/acquisition. Macros**

```
#define SSVER_VERCHAR_MAX (64)
```

```
#define SSVER_DATE_MAX (16)
```

### Typedefs

```
typedef std::map< std::string, SSVER\_PkgInfo > SSVerPkgList
```

```
typedef SSVerPkgList::const_iterator SSVerPkgListIter
```

---

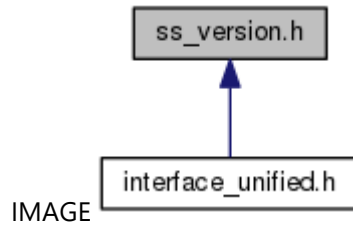
### Detailed Description

This file supports [CSSVer](#) class, This class is a generic [CSSVer](#) abstraction.

## ss\_version.h File Reference

This file supports System Manager version number management.

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



### Macros

#define **MAJORNO** 0x01

#define **MINORNO** 0x00

#define **REVISION** 0x01

---

### Detailed Description

This file supports System Manager version number management.

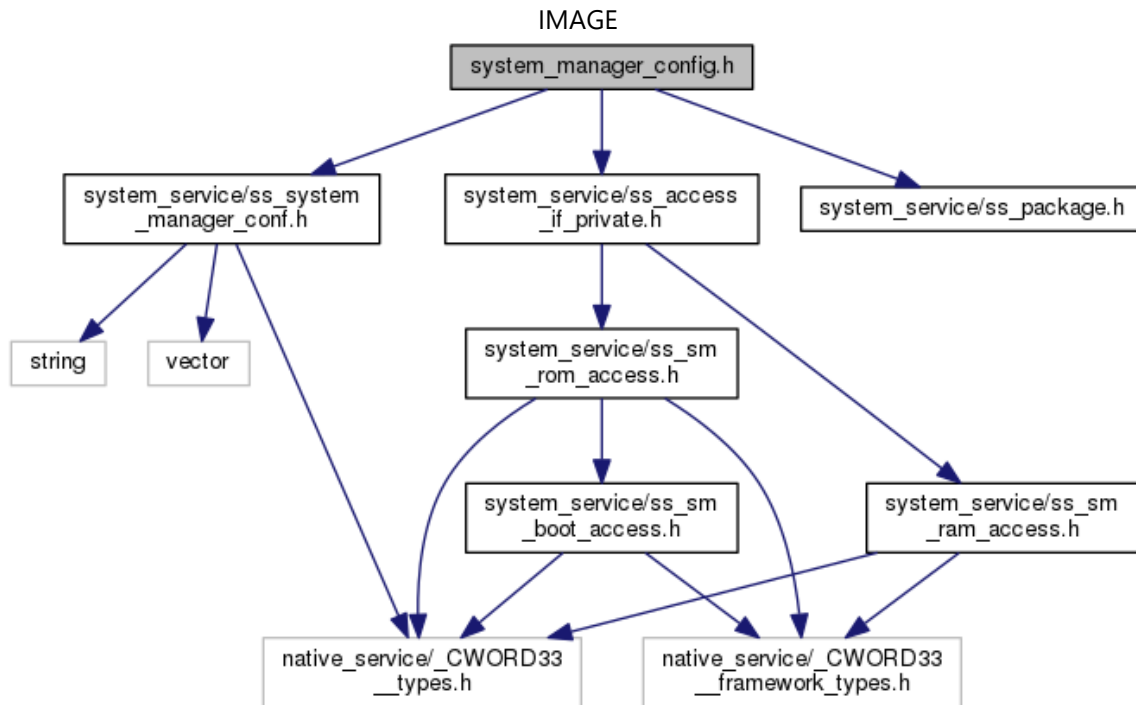
## system\_manager\_config.h File Reference

```
#include <system_service/ss_access_if_private.h>
```

```
#include <system_service/ss_package.h>
```

```
#include <system_service/ss_system_manager_conf.h>
```

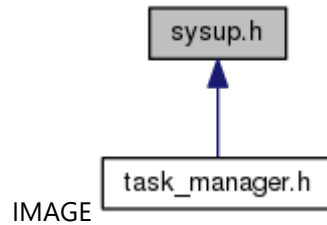
Include dependency graph for system\_manager\_config.h:



## sysup.h File Reference

This file contains declaration of system status(SYS\_RESET, SYS\_ONLY\_RESET)

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



### Macros

```
#define SYS_RESET (int32)1 /* */  
#define SYS_ONLY_RESET (int)2 /* #9# */
```

---

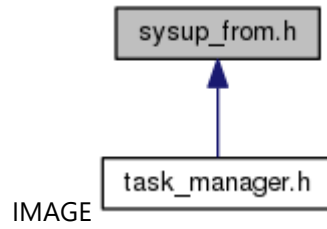
### Detailed Description

This file contains declaration of system status(SYS\_RESET, SYS\_ONLY\_RESET)

## sysup\_from.h File Reference

empty file

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



---

### Detailed Description

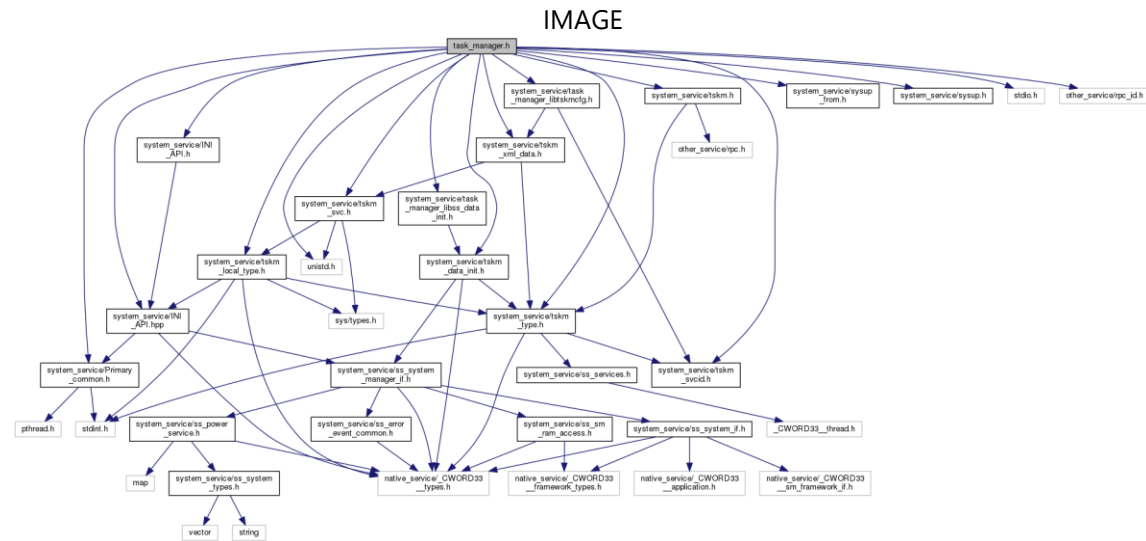
empty file

## task\_manager.h File Reference

include all task\_manager\_library head files

```
#include "system_service/INI_API.h"
#include "system_service/INI_API.hpp"
#include "system_service/Primary_common.h"
#include "system_service/sysup_from.h"
#include "system_service/sysup.h"
#include "system_service/tskm_svc.h"
#include "system_service/tskm_type.h"
#include "system_service/tskm.h"
#include "system_service/tskm_local_type.h"
#include "system_service/tskm_xml_data.h"
#include "system_service/tskm_svcid.h"
#include "system_service/task_manager_libtskmcfg.h"
#include "system_service/tskm_data_init.h"
#include "system_service/task_manager_libss_data_init.h"
```

Include dependency graph for task\_manager.h:



### Detailed Description

include all task\_manager\_library head files

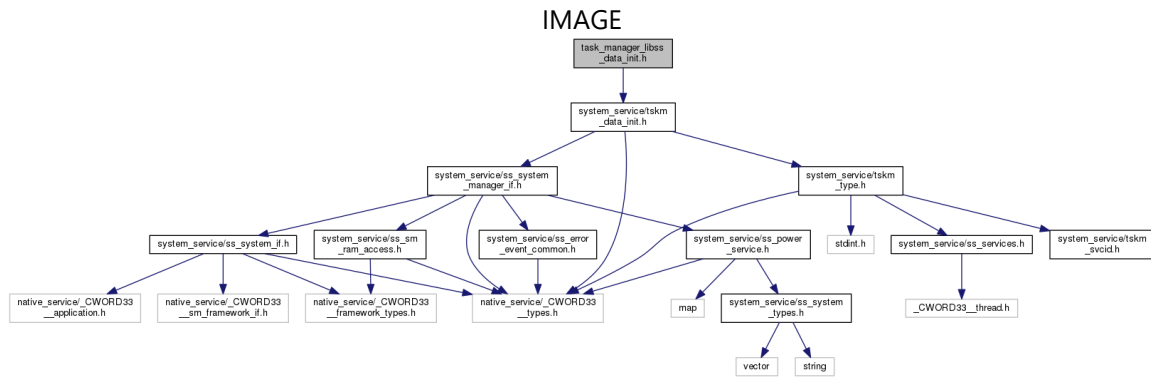


## task\_manager\_libss\_data\_init.h File Reference

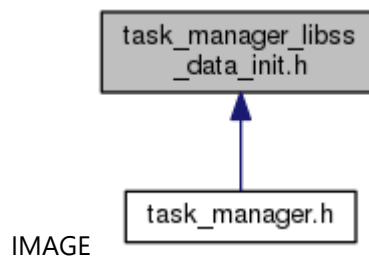
This file include [tskm\\_data\\_init.h](#).

```
#include "system_service/tskm_data_init.h"
```

Include dependency graph for task\_manager\_libss\_data\_init.h:



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



### Detailed Description

This file include [tskm\\_data\\_init.h](#).

## task\_manager\_libtskmcfg.h File Reference

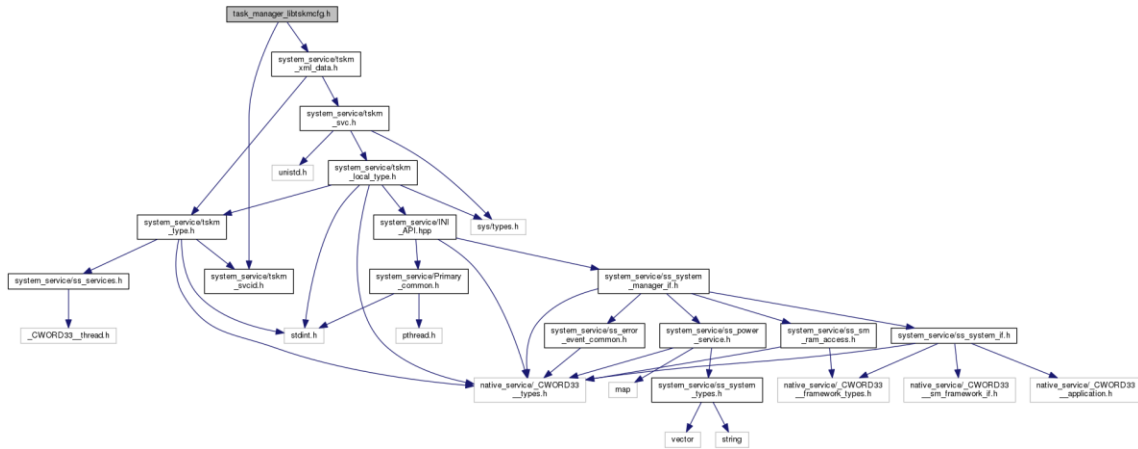
This file include [tskm\\_svcid.h](#) file and [tskm\\_xml\\_data.h](#) file.

```
#include "system_service/tskm_svcid.h"
```

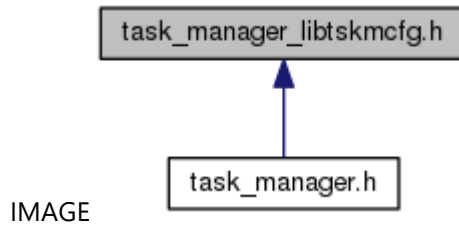
```
#include "system_service/tskm_xml_data.h"
```

Include dependency graph for task\_manager\_libtskmcfg.h:

IMAGE



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



IMAGE

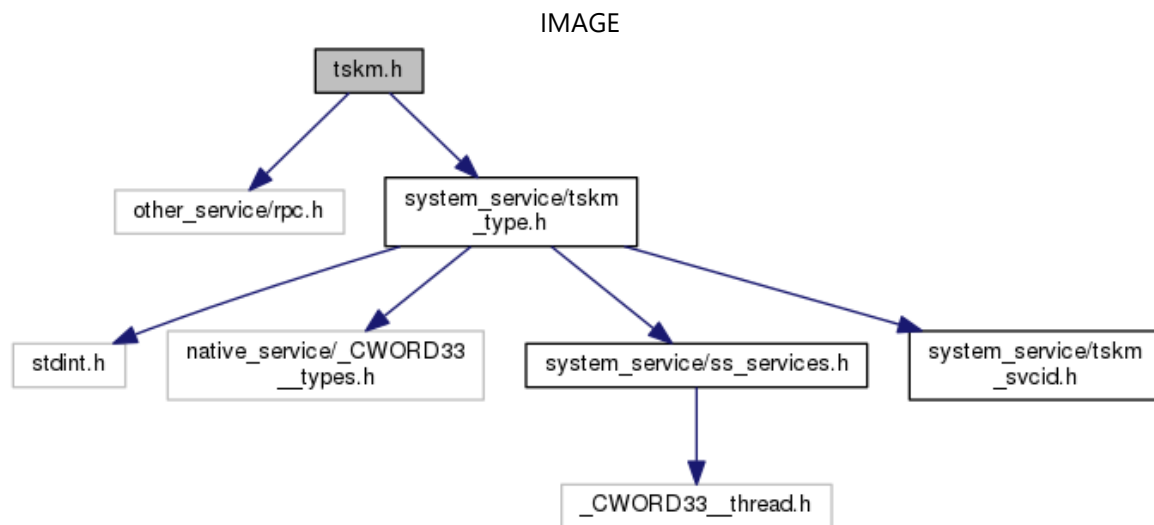
### Detailed Description

This file include [tskm\\_svcid.h](#) file and [tskm\\_xml\\_data.h](#) file.

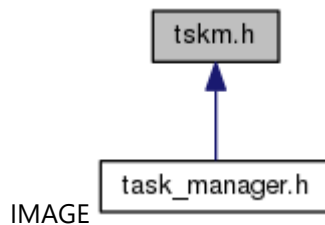
## tskm.h File Reference

This file contains primary API of task manager.

```
#include <other_service/rpc.h>
#include "system_service/tskm_type.h"
Include dependency graph for tskm.h:
```



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



### Macros

```
#define TSKM_ID RPC_ID
#define TSKM\_Init(p_tskmId) RPC_START_CLIENT(p_tskmId)
#define TSKM\_End(tskmId) RPC_end(tskmId)
```

### Functions

```
TSKM_ERR_t TSKM\_SvcCtl (TSKM_SVCID_t svcId, const TSKM\_SVC\_CTL\_t *ctl)
TSKM_ERR_t TSKM\_SvcGetInfo (TSKM_SVCID_t svcId, TSKM\_SVC\_INFO\_t *svclInfo)
TSKM_ERR_t TSKM\_ErrorReboot (const TSKM\_ERROR\_REBOOT\_t *p_info)
TSKM_ERR_t TSKM\_Reboot (const TSKM_RSV_t *p_rsv)
TSKM_ERR_t TSKM\_Logging (const TSKM\_LOGGING\_INFO\_t *p_info)
TSKM_ERR_t TSKM\_DataInit (HANDLE hApp, const TSKM\_DATAINIT\_t *p_info)
TSKM_ERR_t TSKM\_SetWakeupOrder (const TSKM\_WAKEUP\_ORDER\_t *p_order)
```

---

**Detailed Description**

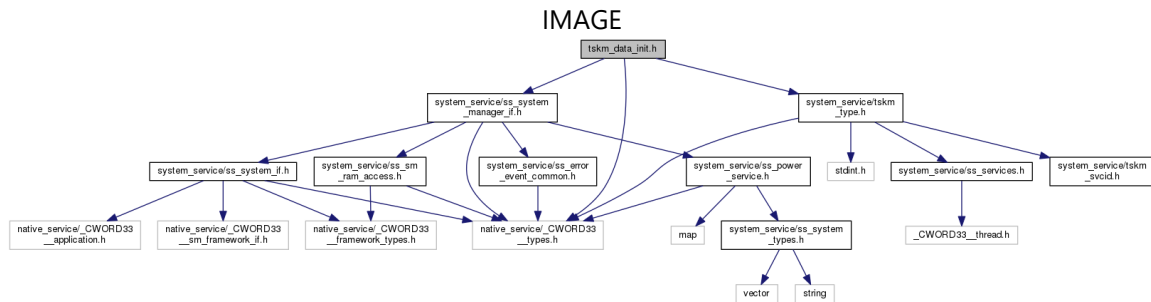
This file contains primary API of task manager.

## tskm\_data\_init.h File Reference

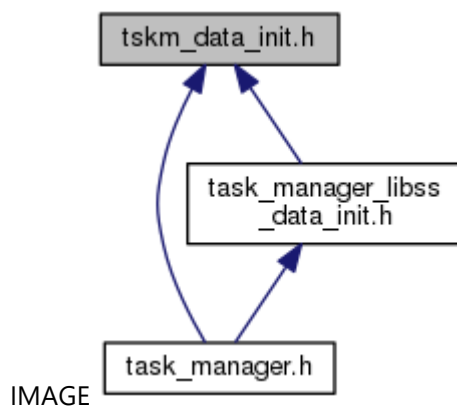
This file contains API of initial task manager data.

```
#include <native_service/_CWORD33_types.h>
#include <system_service/ss_system_manager_if.h>
#include "system_service/tskm_type.h"
```

Include dependency graph for tskm\_data\_init.h:



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



### Macros

```
#define TSKM\_DATA\_INIT\_FUNC(ServiceName, ArgName) E_CWORD33_Status tskm_##  
ServiceName##_data_init(T\_SS\_SM\_START\_DataStructType* ArgName)
```

### Functions

```
TSKM_ERR_t TSKM\_GetExtBootInfo (T\_SS\_SM\_START\_ExtDataStructType *p_info)
```

### Detailed Description

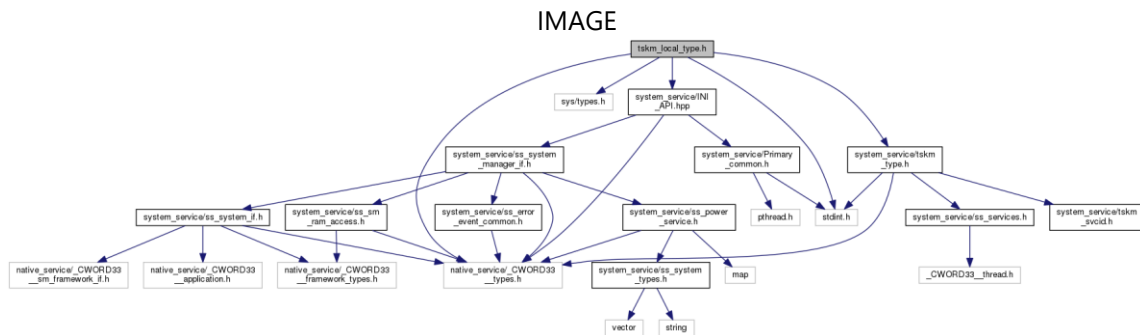
This file contains API of initial task manager data.

## tskm\_local\_type.h File Reference

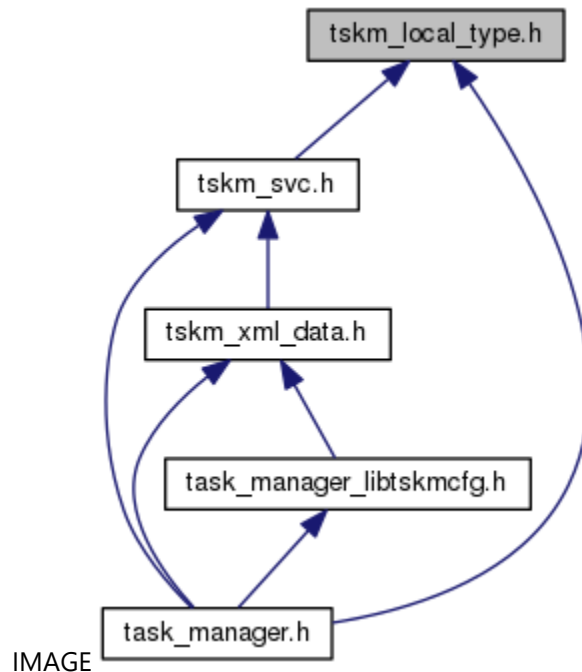
localtype of tskm

```
#include <stdint.h>
#include <sys/types.h>
#include <native_service/_CWORD33_types.h>
#include "system_service/INI_API.hpp"
#include "system_service/tskm_type.h"
```

Include dependency graph for tskm\_local\_type.h:



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



### Classes

struct [TSKM\\_GSTEP\\_REQ\\_INFO\\_t](#)

struct [TSKM\\_GSTEP\\_t](#)

```

struct TSKM\_GSTEP\_CTX\_t
struct TSKM\_NV\_HEADER\_t
struct TSKM\_NV\_FOOTER\_t
struct TSKM\_NV\_BODY\_t
struct TSKM\_NV\_INFO\_t
struct TSKM\_EV\_PRI\_REQ\_WAKEUP\_PRM\_t
struct TSKM\_EV\_PRI\_REQ\_DOWN\_PRM\_t
struct TSKM\_EV\_PRI\_REP\_WAKEUP\_COMP\_PRM\_t
struct TSKM\_EV\_PRI\_REP\_DOWN\_COMP\_PRM\_t
struct TSKM\_EV\_PRI\_REP\_CONNECT\_PRM\_t
struct TSKM\_EV\_PRI\_RES\_WAKEUP\_PRM\_t
struct TSKM\_EV\_PRI\_RES\_DOWN\_PRM\_t
struct TSKM\_EV\_PRI\_EX\_RES\_DEBUGDUMP\_PRM\_t
struct TSKM\_EV\_LCL\_CHG\_SVC\_STATE\_PRM\_t
struct TSKM\_EVENT\_INFO\_t
union TSKM\_EVENT\_INFO\_t.prm

```

### Macros

```

#define TSKM_CFG_WAIT_SHUTDOWN 10000
#define TSKM_CFG_TOUCH_TIMEOUT 2
#define TSKM_ST_ACCOFF 0x01000000U
#define TSKM_ST_ACCON 0x02000000U
#define TSKM_ST_WAKEUP 0x02010000U
#define TSKM_ST_RUNNING 0x02020000U
#define TSKM_ST_DOWN 0x02040000U
#define TSKM_STATE_MASK0 0xFF000000U
#define TSKM_STATE_MASK1 0xFFFF0000U
#define TSKM_STATE_MASK2 0xFFFFFFFF0U
#define TSKM_STATE_MASK3 0xFFFFFFFFFU
#define TSKM_GSTEP_NONE 0x00000000U
#define TSKM_GSTEP_BUPCHK 0x00000001U
#define TSKM_LSTEP_LAST 0xFFFFFFFF0U
#define TSKM_LSTEP_SHM 0xFFFFFFFF1U
#define TSKM_LSTEP_BUPCHK 0xFFFFFFFF2U
#define TSKM_LSTEP_ALL 0xFFFFFFFF3U
#define TSKM_NV_STRUCT_VERSION "v000"
#define TSKM_SVC_RESERVE_MAX (8)
#define TSKM_NV_SIZE_ALL (512)
#define TSKM_NV_SIZE_HEADER (32)
#define TSKM_NV_SIZE_FOOTER (32)
#define TSKM_NV_SIZE_BODY (TSKM_NV_SIZE_ALL - TSKM_NV_SIZE_HEADER -
    TSKM_NV_SIZE_FOOTER)
#define TSKM_EV_BOOTINFO_SIZE sizeof(T\_SS\_SM\_START\_DataStructType)
#define TSKM_EV_EXTBOOTINFO_SIZE sizeof(T\_SS\_SM\_START\_ExtDataStructType)
#define TSKM_EV_DEBUGDUMP_SIZE 4096

```

### Typedefs

```

typedef uint32_t TSKM_STATE_t

```

```
typedef uint32_t TSKM_GLOBAL_STEP_t
typedef uint32_t TSKM_LOCAL_STEP_t
typedef struct \_TSKM\_EVENT\_INFO\_t TSKM_EVENT_INFO_t
```

### Enumerations

```
enum TSKM_EVENT_t { TSKM_EV_NOP, TSKM_EV_PRI_REQ_WAKEUP,
    TSKM_EV_PRI_REQ_DOWN, TSKM_EV_PRI_REQ_TOUCH,
    TSKM_EV_PRI_REQ_DEBUGDUMP, TSKM_EV_PRI_REQ_LOWMEM,
    TSKM_EV_PRI_REQ_WAKEUP_COMP, TSKM_EV_PRI_REQ_DOWN_COMP,
    TSKM_EV_PRI_REQ_CONNECT, TSKM_EV_PRI_REQ_DISCONNECT,
    TSKM_EV_PRI_RES_WAKEUP, TSKM_EV_PRI_RES_DOWN,
    TSKM_EV_PRI_RES_DEBUGDUMP, TSKM_EV_PRI_REQ_EXIT, TSKM_EV_SVC_REQ_TERM,
    TSKM_EV_API_REQ_REBOOT, TSKM_EV_API_REQ_SVC_CTL,
    TSKM_EV_API_REQ_SVC_DISABLE, TSKM_EV_LCL_REQ_STOP,
    TSKM_EV_LCL_CHG_SVC_STATE, TSKM_EV_LCL_REQ_SDUMP,
    TSKM_EV_LCL_REQ_TIMEOUT, TSKM_EV_LCL_REQ_POLLING,
    TSKM_EV_LCL_REQ_LOWMEM, TSKM_EV_LCL_REQ_TRANS_STEP }
enum TSKM_PROTOCOL_t { TSKM_DATAINIT_REQ = ***, TSKM_DATAINIT_RESP,
    TSKM_TRANS_STEP_REQ }
```

---

### Detailed Description

localtype of tskm



## tskm\_svc.h File Reference

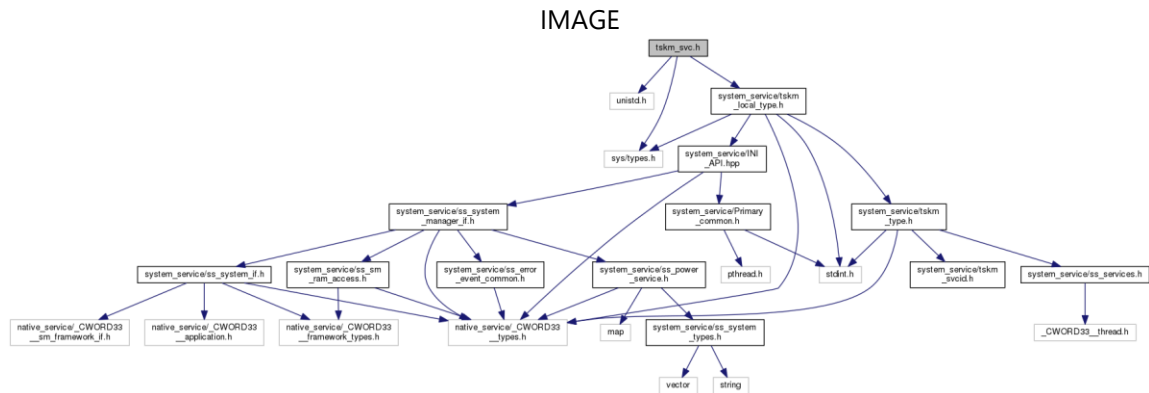
define of tskm

```
#include <unistd.h>
```

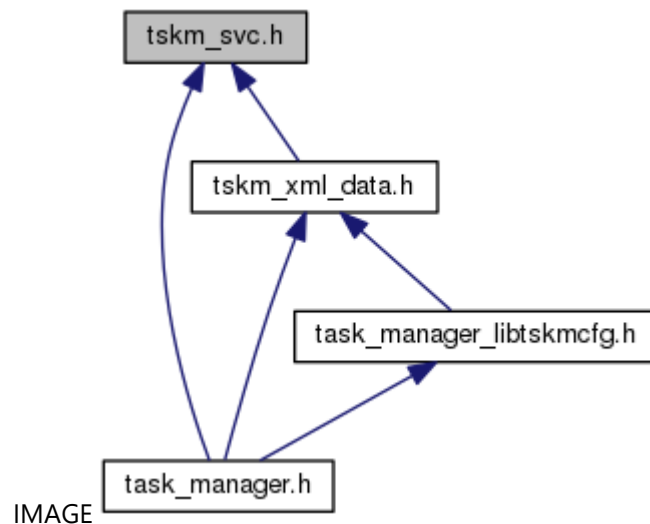
```
#include <sys/types.h>
```

```
#include "system_service/tskm_local_type.h"
```

Include dependency graph for tskm\_svc.h:



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



### Classes

struct [TSKM\\_SVC\\_ATTR\\_t](#)

struct [TSKM\\_SVC\\_CTX\\_t](#)

struct [TSKM\\_SVCS\\_CTX\\_t](#)

### Macros

```
#define TSKM_SVC_WAIT_REQ_MAX (8)
```

## Enumerations

```
enum TSKM_SVC_TYPE_t { TSKM_SVC_TYPE_NATIVE, TSKM_SVC_TYPE_UNKNONW }
enum TSKM_SVC_POLICY_t { TSKM_SVC_POLICY_TSS, TSKM_SVC_POLICY_RR,
    TSKM_SVC_POLICY_FIFO }
enum TSKM_SVC_LC_t { TSKM_SVC_LC_ALWAYS, TSKM_SVC_LC_ALWAYS_RECOVERABLE,
    TSKM_SVC_LC_DYNAMIC }
enum TSKM_SVC_ASSIGN_CPU_t { TSKM_SVC_ASSIGN_CPU_AUTO = ***,
    TSKM_SVC_ASSIGN_CPU_0 = ***, TSKM_SVC_ASSIGN_CPU_1 = ** }
enum TSKM_SVC_STATE_t { TSKM_SVC_DORMANT, TSKM_SVC_WAITCONNECT,
    TSKM_SVC_WAKEUP, TSKM_SVC_RUNNING, TSKM_SVC_DOWN, TSKM_SVC_FINDOWN,
    TSKM_SVC_DISABLE }
enum TSKM_SVC_WAIT_STATE_t { TSKM_SVC_WAIT_NONE, TSKM_SVC_WAIT_TRANSIENT,
    TSKM_SVC_WAIT_BOTH }
```

## Functions

```
TSKM_ERR_t tskm\_svcsEventHandle (TSKM_SVCS_CTX_t *p_svcs, const TSKM\_EVENT\_INFO\_t
    *p_inEv, TSKM\_EVENT\_INFO\_t *p_outEv)
TSKM\_SVC\_CTX\_t * tskm\_svcsGetSvcBySvcId (TSKM_SVCS_CTX_t *p_svcs, TSKM_SVCID_t svcId)
TSKM\_SVC\_CTX\_t * tskm\_svcsGetSvcByPid (TSKM_SVCS_CTX_t *p_svcs, pid_t pid)
TSKM_BOOL_t tskm\_svcsIsWaiting (TSKM_SVCS_CTX_t *p_svcs)
TSKM_SVC_WAIT_STATE_t tskm\_svcsGetSvcTermWaitState (TSKM_SVCS_CTX_t *p_svcs)
TSKM_ERR_t tskm\_svcsSetBootInfo (TSKM_SVCS_CTX_t *p_svcs, T\_SS\_SM\_START\_DataStructType
    *p_info, T\_SS\_SM\_START\_ExtDataStructType *p_exInfo)
TSKM_ERR_t tskm\_svcsActiveSvcTerm (TSKM_SVCS_CTX_t *p_svcs)
TSKM_ERR_t tskm\_svcsCallDebugDump (TSKM_SVCS_CTX_t *p_svcs)
TSKM_ERR_t tskm\_svcsCallLowMem (TSKM_SVCS_CTX_t *p_svcs)
TSKM_ERR_t tskm\_svcEventHandle (TSKM_SVC_CTX_t *p_svc, TSKM\_EVENT\_INFO\_t *p_ev)
TSKM_ERR_t tskm\_svcExec (TSKM_SVC_CTX_t *p_svc)
TSKM_ERR_t tskm\_svcWakeupRequest (TSKM_SVC_CTX_t *p_svc, TSKM\_GSTEP\_REQ\_INFO\_t
    *p_req)
TSKM_ERR_t tskm\_svcDownRequest (TSKM_SVC_CTX_t *p_svc, TSKM\_GSTEP\_REQ\_INFO\_t *p_req)
TSKM_ERR_t tskm\_svcDisableRequest (TSKM_SVC_CTX_t *p_svc)
TSKM_ERR_t tskm\_svcEnableRequest (TSKM_SVC_CTX_t *p_svc)
TSKM_BOOL_t tskm\_svclsCommunicatable (TSKM_SVC_CTX_t *p_svc)
```

---

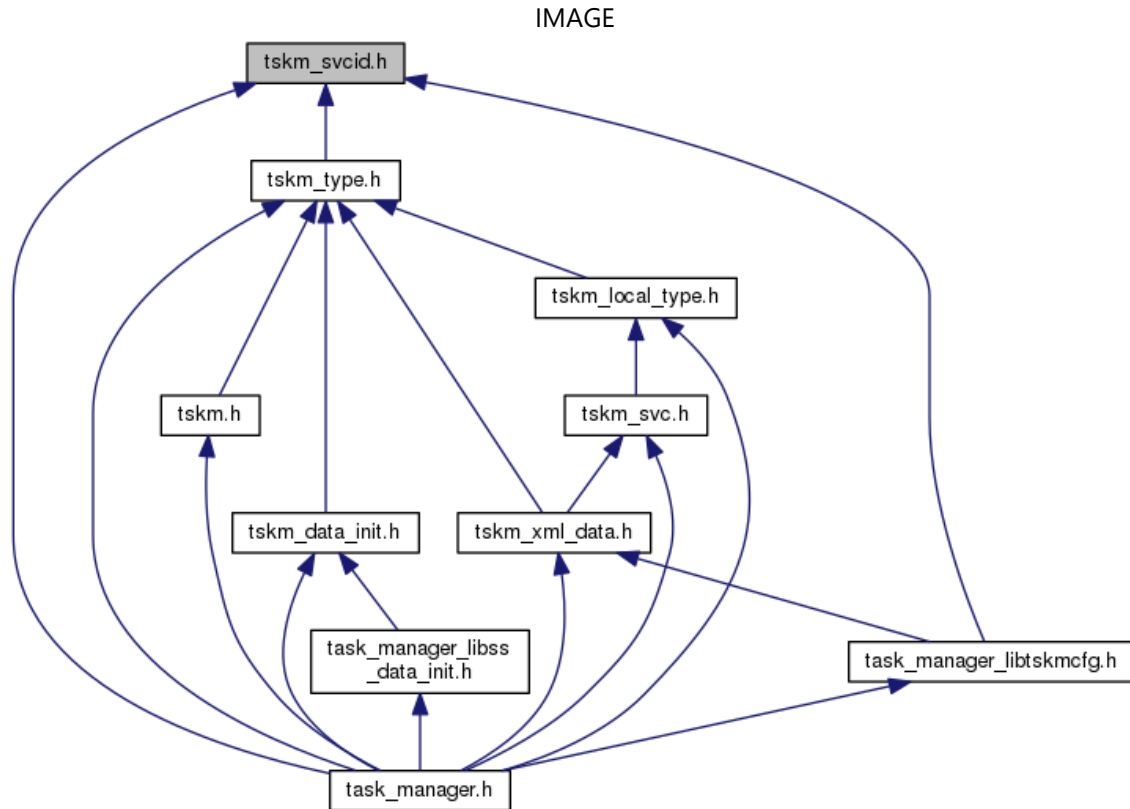
## Detailed Description

define of tskm

## tskm\_svcid.h File Reference

This file contains declaration of TSKM\_SVC ID.

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



### Macros

```
#define TSKM_SVCID_NONE 0x00000000U
#define TSKM_SVCID_TE_RESIDENT 0x00000001U
#define TSKM_SVCID_TE_TRANSIENT 0x00000002U
#define TSKM_SVCID_ACTIVITYMGR 0x00000003U
#define TSKM_SVCID_SYSVUP 0x00000004U
#define TSKM_SVCID_CWORD52_VUP 0x00000005U
#define TSKM_SVCID_ROOTFSVUP 0x00000006U
#define TSKM_SVCID_VUPPROGUI 0x00000007U
#define TSKM_SVCID_NORVUP 0x00000008U
#define TSKM_SVCID_CWORD58_ 0x00000009U
#define TSKM_SVCID_SYSUPDATE 0x0000000AU
#define TSKM_SVCID_NANDUPDATE 0x0000000BU
#define TSKM_SVCID_BTPHONESRV 0x0000000CU
#define TSKM_SVCID_BTPBKSrv 0x0000000DU
#define TSKM_SVCID_BTMSGSRV 0x0000000EU
#define TSKM_SVCID_DTVVUPSRV 0x0000000FU
```

```
#define TSKM_SVCID_XMVUPSRV 0x00000020U
```

---

### **Detailed Description**

This file contains declaration of TSKM\_SVC ID.

## tskm\_type.h File Reference

type of tskm

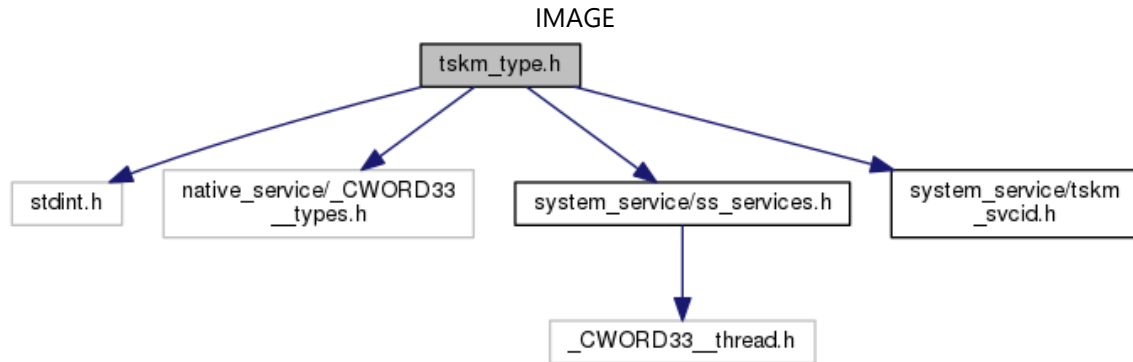
```
#include <stdint.h>
```

```
#include <native_service/_CWORD33_types.h>
```

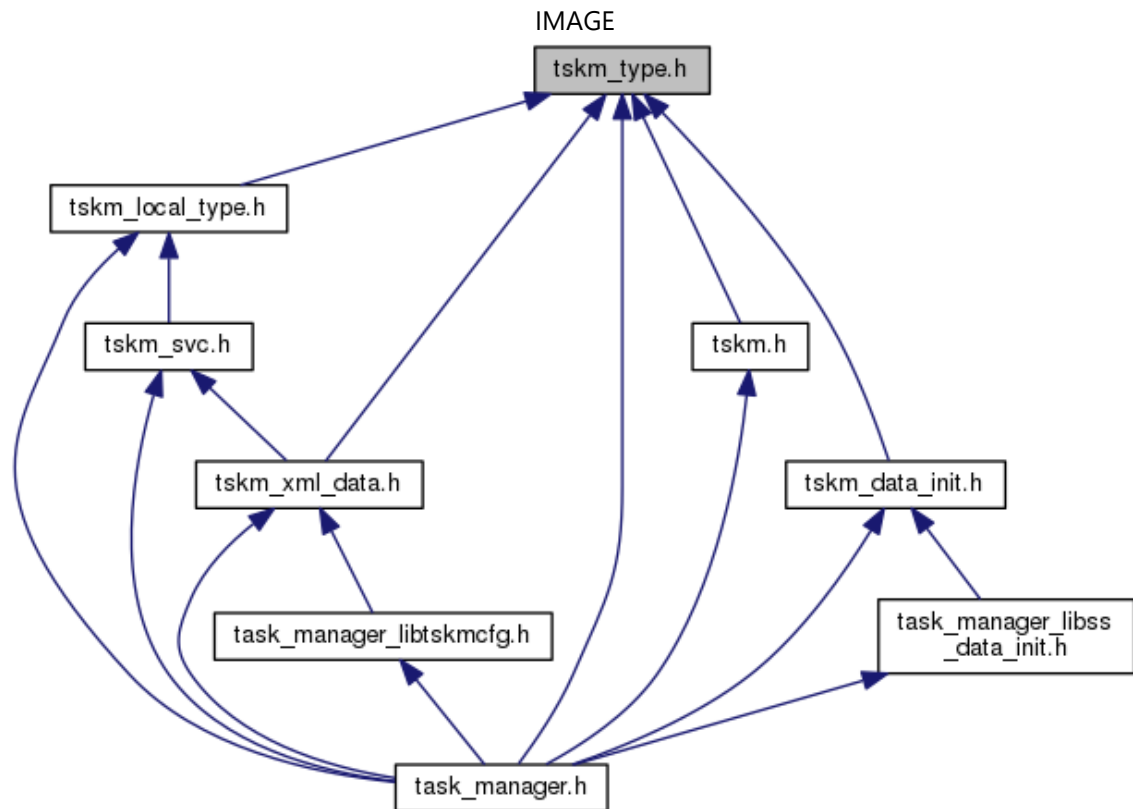
```
#include <system_service/ss_services.h>
```

```
#include "system_service/tskm_svcid.h"
```

Include dependency graph for tskm\_type.h:



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



## Classes

```
struct TSKM\_SVC\_CTL\_t  
struct TSKM\_SVC\_INFO\_t  
struct TSKM\_LOGGING\_INFO\_t  
struct TSKM\_ERROR\_REBOOT\_t  
struct TSKM\_DATAINIT\_t  
struct TSKM\_WAKEUP\_ORDER\_t
```

## Macros

```
#define TSKM_ERR_t int32_t  
#define TSKM_E_OK 0  
#define TSKM_E_PAR 1  
#define TSKM_E_STATE 2  
#define TSKM_E_PERMIT 3  
#define TSKM_E_ALREADY 4  
#define TSKM_E_RETRY 5  
#define TSKM_E_NG 6  
#define TSKM_BOOL_t int32_t  
#define TSKM_TRUE 1  
#define TSKM_FALSE 0  
#define TSKM_RSV_t int  
#define TSKM_LOGGING_MSG_STR_SIZE 64  
#define TSKM_ORDER_NAME_MAX 32
```

## Typedefs

```
typedef uint32_t TSKM_SVCID_t
```

## Enumerations

```
enum TSKM_SVC_CMD_t { TSKM_SVC_CMD_NOP, TSKM_SVC_CMD_EXEC,  
                  TSKM_SVC_CMD_ENABLE, TSKM_SVC_CMD_DISABLE, TSKM_SVC_CMD_RESERVE }  
enum TSKM_BOOT_t { TSKM_BOOT_NORMAL, TSKM_BOOT_FACTRESET,  
                  TSKM_BOOT_USERRESET, TSKM_BOOT_VERSIONUP }  
enum TSKM_LOGGING_TYPE_NORMAL_t { TSKM_LOGGING_TYPE_MODULE_LOGS,  
                                  TSKM_LOGGING_TYPE_GRP_RELAUNCH }  
enum TSKM_ERROR_REBOOT_TYPE_t { TSKM_ERROR_REBOOT_NORMAL }  
enum TSKM_DATAINIT_TYPE_t { TSKM_DATAINIT_TYPE_USER }
```

---

## Detailed Description

type of tskm

## tskm\_xml\_data.h File Reference

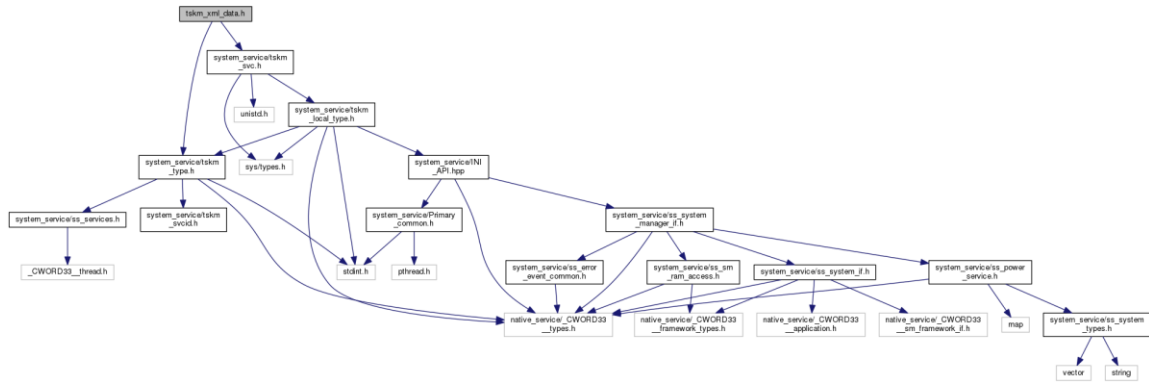
This file provide api to operating task manager with XML data.

```
#include "system_service/tskm_type.h"
```

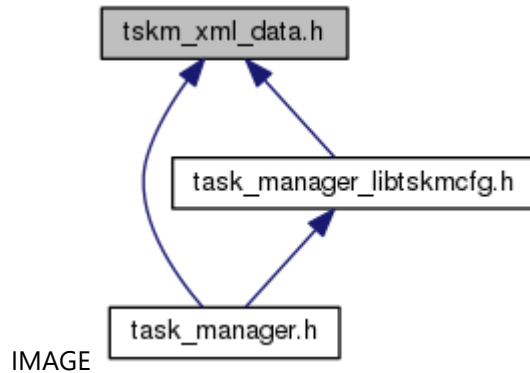
```
#include "system_service/tskm_svc.h"
```

Include dependency graph for tskm\_xml\_data.h:

IMAGE



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



### Functions

int [tskm\\_initServiceList](#) (TSKM SVCS CTX t \*p\_svcs, int iFd)

void [tskm\\_initWakeupCtx](#) (TSKM GSTEP CTX t \*p\_wakeup, BOOL isVupMode)

void [tskm\\_initDownCtx](#) (TSKM GSTEP CTX t \*p\_down, BOOL isVupMode)

### Detailed Description

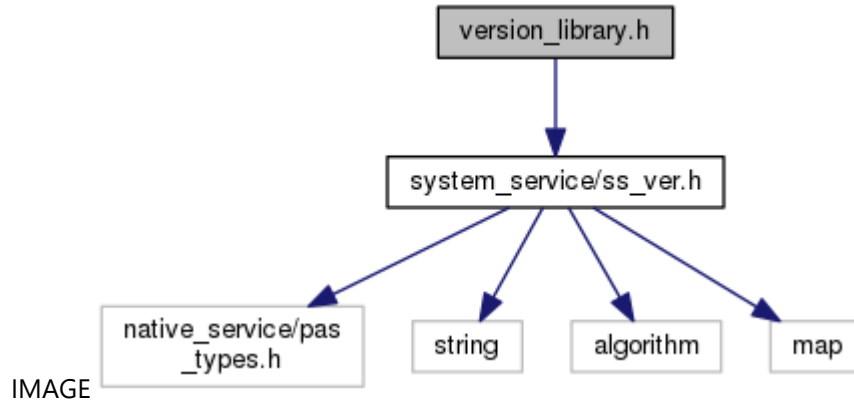
This file provide api to operating task manager with XML data.

## version\_library.h File Reference

This file include [ss\\_ver.h](#).

```
#include "system_service/ss_ver.h"
```

Include dependency graph for version\_library.h:



### Detailed Description

This file include [ss\\_ver.h](#).