



Open CORE™

OSCL API

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Chapter 1

Todo List

Global **MAX_NUMBER_OF_BYTE_PER_UTF8** Handle 4-byte surrogate pair representation

Chapter 2

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Data Structure Index

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Chapter 4

Data Structure Index

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Chapter 5

File Index

5.1 File List

Here is a list of all files with brief descriptions:

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• less complete	
• based on array rather than a deque	
• some interfaces modeled on <code>oscl_vector</code> , for ease of transition Memory allocation is abstracted through the use of an allocator template parameter	
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Chapter 6

Module Documentation

6.1 OSCL config

Defines

- #define OSCL_HAS_UNIX_SUPPORT 0
- #define OSCL_HAS_MSWIN_SUPPORT 0
- #define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_SUPPORT 0
- #define OSCL_HAS_SAVAJE_SUPPORT 0
- #define OSCL_HAS_PV_C_OS_SUPPORT 0
- #define OSCL_HAS_ANDROID_SUPPORT 0
- #define OSCL_HAS_IPHONE_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_ERRORTRAP 0
- #define OSCL_HAS_SYMBIAN_MEMORY_FUNCS 0
- #define OSCL_HAS_PV_C_OS_API_MEMORY_FUNCS 0
- #define OSCL_HAS_PV_C_OS_TIME_FUNCS 0
- #define OSCL_HAS_UNIX_TIME_FUNCS 0
- #define OSCL_HAS_SYMBIAN_TIMERS 0
- #define OSCL_HAS_SYMBIAN_MATH 0
- #define OSCL_HAS_SYMBIAN_SCHEDULER 0
- #define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 0
- #define OSCL_HAS_PTHREAD_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_COMPATIBLE_IO_FUNCTION 0
- #define OSCL_HAS_SAVAJE_IO_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_SOCKET_SERVER 0
- #define OSCL_HAS_SYMBIAN_DNS_SERVER 0
- #define OSCL_HAS_BERKELEY_SOCKETS 0

Typedefs

- typedef int8 __int8__check__
- typedef uint8 __uint8__check__
- typedef int16 __int16__check__
- typedef uint16 __uint16__check__
- typedef int32 __int32__check__
- typedef uint32 __uint32__check__

6.1.1 Define Documentation

- 6.1.1.1 #define OSCL_HAS_ANDROID_SUPPORT 0
- 6.1.1.2 #define OSCL_HAS_BERKELEY_SOCKETS 0
- 6.1.1.3 #define OSCL_HAS_IPHONE_SUPPORT 0
- 6.1.1.4 #define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0
- 6.1.1.5 #define OSCL_HAS_MSWIN_SUPPORT 0
- 6.1.1.6 #define OSCL_HAS_PTHREAD_SUPPORT 0
- 6.1.1.7 #define OSCL_HAS_PV_C_OS_API_MEMORY_FUNCS 0
- 6.1.1.8 #define OSCL_HAS_PV_C_OS_SUPPORT 0
- 6.1.1.9 #define OSCL_HAS_PV_C_OS_TIME_FUNCS 0
- 6.1.1.10 #define OSCL_HAS_SAVAJE_IO_SUPPORT 0
- 6.1.1.11 #define OSCL_HAS_SAVAJE_SUPPORT 0
- 6.1.1.12 #define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 0
- 6.1.1.13 #define OSCL_HAS_SYMBIAN_COMPATIBLE_IO_FUNCTION 0
- 6.1.1.14 #define OSCL_HAS_SYMBIAN_DNS_SERVER 0
- 6.1.1.15 #define OSCL_HAS_SYMBIAN_ERRORTRAP 0
- 6.1.1.16 #define OSCL_HAS_SYMBIAN_MATH 0
- 6.1.1.17 #define OSCL_HAS_SYMBIAN_MEMORY_FUNCS 0
- 6.1.1.18 #define OSCL_HAS_SYMBIAN_SCHEDULER 0
- 6.1.1.19 #define OSCL_HAS_SYMBIAN_SOCKET_SERVER 0
- 6.1.1.20 #define OSCL_HAS_SYMBIAN_SUPPORT 0
- 6.1.1.21 #define OSCL_HAS_SYMBIAN_TIMERS 0
- 6.1.1.22 #define OSCL_HAS_UNIX_SUPPORT 0
- 6.1.1.23 #define OSCL_HAS_UNIX_TIME_FUNCS 0

6.1.2 Typedef Documentation

6.1.2.1 `typedef int16 __int16__check__`

6.1.2.2 `typedef int32 __int32__check__`

6.1.2.3 `typedef int8 __int8__check__`

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6.1.2.4 `typedef uint16 __uint16__check__`

6.1.2.5 `typedef uint32 __uint32__check__`

6.1.2.6 `typedef uint8 __uint8__check__`

6.2 OSCL Base

Data Structures

- class [_OsclBasicAllocator](#)
- class [Oscl_Alloc](#)
- class [Oscl_Dalloc](#)
- class [Oscl_DefAlloc](#)
- class [OsclDestructDealloc](#)
- class [OsclAllocDestructDealloc](#)
- class [Oscl_TAlloc< T, Alloc >](#)
- class [OsclExclusivePtr< T >](#)

The [OsclExclusivePtr](#) class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the [OsclExclusivePtr](#) expires, its destructor uses delete to free the memory.

- class [OsclExclusiveArrayPtr< T >](#)

The [OsclExclusiveArrayPtr](#) class is a template class that defines an array pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the [OsclExclusiveArrayPtr](#) expires, its destructor uses delete to free the memory.

- class [OsclExclusivePtrA< T, Alloc >](#)

The [OsclExclusivePtrA](#) class is a template class that defines any pointer like object intended to be assigned an address obtained (directly or or indirectly) through Alloc. When the [OsclExclusivePtrA](#) expires, Alloc is used to free the memory.

- class [LinkedListElement< LLClass >](#)
- class [Oscl_Linked_List_Base](#)
- class [Oscl_Linked_List< LLClass, Alloc >](#)
- class [Oscl_MTLinkedList< LLClass, Alloc, TheLock >](#)
- class [OsclLockBase](#)
- class [OsclNullLock](#)
- class [OsclScopedLock< LockClass >](#)

The [OsclScopedLock](#) class is a template class that handles unlocking an abstract class on destruction. This is very useful for ensuring that the lock is released when the [OsclScopedLock](#) goes out of scope.

- struct [Oscl_Less< T >](#)
- struct [Oscl_Select1st< V, U >](#)
- class [Oscl_Map< Key, T, Alloc, Compare >](#)
- class [Oscl_Opaque_Type_Alloc](#)
- class [Oscl_Opaque_Type_Compare](#)
- class [Oscl_Opaque_Type_Alloc_LL](#)
- class [Oscl_Queue_Base](#)
- class [Oscl_Queue< T, Alloc >](#)
- class [OsclRefCounter](#)
- class [OsclRefCounterDA](#)
- class [OsclRefCounterSA< DeallocType >](#)
- class [OsclRefCounterMTDA< LockType >](#)
- class [OsclRefCounterMTSA< DeallocType, LockType >](#)
- class [Oscl_DefAllocWithRefCounter< DefAlloc >](#)
- class [OsclRefCounterMemFrag](#)

- class [OsclSharedPtr< TheClass >](#)

A parameterized smart pointer class.

- struct [Oscl_Tag_Base](#)
- struct [Oscl_Tag< Alloc >](#)
- class [Oscl_TagTree< T, Alloc >](#)
- class [NTPTime](#)

The [NTPTime](#) class represents a time value as the number of seconds since 0h (UTC) Jan. 1, 1900.

- class [TimeValue](#)

The [TimeValue](#) class represents a time value in a format native to the system.

- class [TLSStorageOps](#)
- class [OsclTLSRegistry](#)
- class [OsclTLS< T, ID, Registry >](#)
- struct [Oscl_Pair< T1, T2 >](#)
- struct [Oscl_Rb_Tree_Node_Base](#)
- struct [Oscl_Rb_Tree_Node< Value >](#)
- struct [Oscl_Rb_Tree_Iterator< Value >](#)
- struct [Oscl_Rb_Tree_Const_Iterator< Value >](#)
- class [Oscl_Rb_Tree_Base](#)
- class [Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >](#)
- struct [OsclMemoryFragment](#)
- class [Oscl_Vector_Base](#)
- class [Oscl_Vector< T, Alloc >](#)

Files

- file [oscl_assert.h](#)

The file [oscl_assert.h](#) provides an OSCL_ASSERT macro to document assumptions and test them during development.

- file [oscl_base.h](#)

The file [oscl_base.h](#) is the public header that should be included to pick up the platform configuration, basic type definitions, and common macros.

- file [oscl_base_alloc.h](#)

A basic allocator that does not rely on other modules.

- file [oscl_base_macros.h](#)

This file defines common macros and constants for basic compilation support.

- file [oscl_byte_order.h](#)

This file defines functions providing byte ordering utility (e.g., switching between big and little endian orders).

- file [oscl_defalloc.h](#)

The file defines simple default memory allocator classes. These allocators are used by the [Oscl_Vector](#) and [Oscl_Map](#) class, etc.

- file [oscl_dll.h](#)

Defines a DLL entry point.

- file [oscl_exclusive_ptr.h](#)

This file defines the [OsclExclusivePtr](#) template class. This class is used to avoid any potential memory leaks that may arise while returning from methods in case of error.

- file [oscl_linked_list.h](#)

The file [oscl_linked_list.h](#) defines the template class [Oscl_Linked_List](#) which has a very similar API as the STL Vector class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

- file [oscl_lock_base.h](#)

This file defines an abstract lock class, [OsclLockBase](#), that is used for APIs potentially requiring multi-thread safety. A null-lock implementation, [OsclNullLock](#), is also provided for single-thread configurations (basically a noop for lock/unlock). Also provides the [OsclScopedLock](#) class which is template class takes care of freeing the lock when the class goes out of scope.

- file [oscl_map.h](#)

The file [oscl_map.h](#) defines the template class [Oscl_Map](#) which has a very similar API as the STL Map class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

- file [oscl_mem_inst.h](#)

The file defines default memory instrumentation level.

- file [oscl_opaque_type.h](#)

The file [oscl_opaque_type.h](#) defines pure virtual classes for working with opaque types.

- file [oscl_queue.h](#)

The file [oscl_queue.h](#) defines the template class [Oscl_Queue](#). It is similar to the `STL::queue` class, with some differences:

- less complete
- based on array rather than a deque
- some interfaces modeled on [oscl_vector](#), for ease of transition Memory allocation is abstracted through the use of an allocator template parameter.

- file [oscl_refcounter.h](#)

A general purpose reference counter to object lifetimes.

- file [oscl_refcounter_memfrag.h](#)

This file provides the definition of reference counted memory fragment, which provides access to a buffer and helps manage its lifetime through the refcount.

- file [oscl_shared_ptr.h](#)

This file defines a template class [OsclSharedPtr](#) which is a "smart pointer" to the parameterized type.

- file [oscl_stdstring.h](#)

This file provides standard string operations such as `strlen`, `strncpy`, etc. ANSI defines undefined behavior when the destination pointer is null for operations such as `strncpy`, `strncat`, etc. But, we chose to define one. In such cases, we return the destination as null.

- file `oscl_tagtree.h`

The file `oscl_tagtree.h` ...

- file `oscl_time.h`

The file `oscl_time.h` defines two classes `NTPTime` and `TimeValue` for getting, manipulating, and formatting time values. The `TimeValue` class is based on the native system time format while `NTPTime` is used for the standard Network Time Protocol format.

- file `oscl_tree.h`

The file `oscl_tree.h` defines the template class `Oscl_Rb_Tree` which has a very similar API as the STL Tree class. It is an implementation of a Red-Black Tree for use by the `Oscl_Map` class. Memory allocation is abstracted through the use of an allocator template parameter.

- file `oscl_types.h`

This file contains basic type definitions for common use across platforms.

- file `oscl_vector.h`

The file `oscl_vector.h` defines the template class `Oscl_Vector` which has a very similar API as the STL Vector class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

Defines

- `#define OSCL_ASSERT(_expr) ((_expr)?((void)0):OSCL_Assert(# _expr,__FILE__,__LINE__))`
- `#define OSCL_HAS_SINGLETON_SUPPORT 1`
- `#define NULL (0)`

The `NULL_TERM_CHAR` is used to terminate c-style strings.

- `#define OSCL_INLINE inline`
- `#define OSCL_COND_EXPORT_REF`
- `#define OSCL_COND_IMPORT_REF`
- `#define OSCL_CONST_CAST(type, exp) ((type)(exp))`

Type casting macros.

- `#define OSCL_STATIC_CAST(type, exp) ((type)(exp))`
- `#define OSCL_REINTERPRET_CAST(type, exp) ((type)(exp))`
- `#define OSCL_DYNAMIC_CAST(type, exp) ((type)(exp))`
- `#define OSCL_VIRTUAL_BASE(type) type`
- `#define OSCL_UNUSED_ARG(vbl) (void)(vbl)`
- `#define OSCL_UNUSED_RETURN(value) return value`
- `#define OSCL_MIN(a, b) ((a) < (b) ? (a) : (b))`
- `#define OSCL_MAX(a, b) ((a) > (b) ? (a) : (b))`
- `#define OSCL_ABS(a) ((a) > (0) ? (a) : -(a))`
- `#define EPV_ARM_GNUC 1`
- `#define EPV_ARM_RVCT 2`
- `#define EPV_ARM_MSEVC 3`
- `#define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE`
- `#define ALLOCATE(n) allocate(n)`
- `#define ALLOC_AND_CONSTRUCT(n) alloc_and_construct(n)`

- #define **OSCL_DLL_ENTRY_POINT()** void oscl_dll_entry_point() {}
- #define **OSCL_DLL_ENTRY_POINT_DEFAULT()**
- #define **OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE**
- #define **PVMEM_INST_LEVEL** 0
- #define **OSCL_DISABLE_WARNING_RETURN_TYPE_NOT_UDT**
- #define **OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE**
- #define **OSCL_TLS_BASE_SLOTS OSCL_TLS_ID_BASE_LAST +1**
- #define **OSCL_TLS_MAX_SLOTS** (**OSCL_TLS_BASE_SLOTS** + **OSCL_TLS_EXTERNAL_SLOTS**)
- #define **OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE**

TypeDefs

- typedef char **CtimeStrBuf** [**CTIME_BUFFER_SIZE**]
- typedef char **PV8601timeStrBuf** [**PV8601TIME_BUFFER_SIZE**]
- typedef char **ISO8601timeStrBuf** [**ISO8601TIME_BUFFER_SIZE**]
- typedef **OsclAny** **TOsclTlsKey**
- typedef int **c_bool**

The c_bool type is mapped to an integer to provide a bool type for C interfaces.
- typedef void **OsclAny**

The OsclAny is meant to be used the context of a generic pointer (i.e., no specific type).
- typedef char **mbchar**

mbchar is multi-byte char (e.g., UTF-8) with null termination.
- typedef unsigned int **uint**

The uint type is a convenient abbreviation for unsigned int.
- typedef **uint8 octet**

The octet type is meant to be used for referring to a byte or collection bytes without suggesting anything about the underlying meaning of the bytes.
- typedef float **OsclFloat**

The Float type defined as OsclFloat.
- typedef size_t **OsclSizeT**
- typedef **OSCL_NATIVE_INT64_TYPE int64**
- typedef **OSCL_NATIVE_UINT64_TYPE uint64**
- typedef **OSCL_NATIVE_WCHAR_TYPE oscl_wchar**
- typedef **oscl_wchar OSCL_TCHAR**

define OSCL_TCHAR

Enumerations

- enum **TimeUnits** { **SECONDS** = 0, **MILLISECONDS** = 1, **MICROSECONDS** = 2 }
- The TimeUnits enum can be used when constructing a TimeValue class.*

Functions

- **OSCL_COND_IMPORT_REF void `_OSCL_Abort()`**

This function terminates the current process abnormally.
- **OSCL_IMPORT_REF void `OSCL_Assert` (const char *expr, const char *filename, int line_number)**

OSCL_ASSERT macro evaluates an expression and when the result is false, prints a diagnostic message and aborts the program.
- **void `PVOsclBase_Init()`**
- **void `PVOsclBase_Cleanup()`**
- **void `little_endian_to_host` (char *data, uint32 size)**

Convert little endian to host format.
- **void `host_to_little_endian` (char *data, unsigned int size)**

Convert host to little endian format.
- **void `big_endian_to_host` (char *data, unsigned int size)**

Convert big endian to host format.
- **void `host_to_big_endian` (char *data, unsigned int size)**

Convert host to big endian format.
- **OsclSharedPtr::OsclSharedPtr (TheClass *inClassPtr, OsclRefCounter *in_refcnt)**

Constructor.
- **OsclSharedPtr::OsclSharedPtr (const OsclSharedPtr &inSharedPtr)**

Copy constructor.
- **virtual OsclSharedPtr::~OsclSharedPtr ()**

Destructor.
- **TheClass * OsclSharedPtr::operator-> ()**
- **TheClass & OsclSharedPtr::operator* ()**

The indirection operator returns a reference to an object of the parameterized type.
- **OsclSharedPtr::operator TheClass * ()**

Casting operator.
- **TheClass * OsclSharedPtr::GetRep ()**

Use this function to get a pointer to the wrapped object.
- **OsclRefCounter * OsclSharedPtr::GetRefCounter ()**

Get the refcount pointer. This should primarily be used for conversion operations.
- **int OsclSharedPtr::get_count ()**

Get a count of how many references to the object exist.
- **void OsclSharedPtr::Bind (const OsclSharedPtr &inHandle)**

Use this function to bind an existing `OsclSharedPtr` to a already-wrapped object.

- void `OsclSharedPtr::Bind` (TheClass *ptr, `OsclRefCounter` *in_refcnt)

Use this function to bind an existing `OsclSharedPtr` to a new (unwrapped) object.

- void `OsclSharedPtr::Unbind` ()

Use this function of unbind an existing `OsclSharedPtr`.

- `OsclSharedPtr & OsclSharedPtr::operator=` (const `OsclSharedPtr` &inSharedPtr)

Assignment operator.

- bool `OsclSharedPtr::operator==` (const `OsclSharedPtr` &b) const

Test for equality to see if two PVHandles wrap the same object.

- OSCL_IMPORT_REF uint32 `oscl_strlen` (const char *str)

- OSCL_IMPORT_REF uint32 `oscl_strlen` (const `oscl_wchar` *str)

- OSCL_IMPORT_REF char * `oscl_strncpy` (char *dest, const char *src, uint32 count)

- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strncpy` (`oscl_wchar` *dest, const `oscl_wchar` *src, uint32 count)

- OSCL_IMPORT_REF int32 `oscl_strcmp` (const char *str1, const char *str2)

- OSCL_IMPORT_REF int32 `oscl_strcmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2)

- OSCL_IMPORT_REF int32 `oscl_strncmp` (const char *str1, const char *str2, uint32 count)

- OSCL_IMPORT_REF int32 `oscl_strncmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2, uint32 count)

- OSCL_IMPORT_REF char * `oscl_strncat` (char *dest, const char *src, uint32 count)

- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strncat` (`oscl_wchar` *dest, const `oscl_wchar` *src, uint32 count)

- OSCL_IMPORT_REF const char * `oscl_strchr` (const char *str, int32 c)

- OSCL_IMPORT_REF char * `oscl_strchr` (char *str, int32 c)

- OSCL_IMPORT_REF const `oscl_wchar` * `oscl_strchr` (const `oscl_wchar` *str, int32 c)

- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strchr` (`oscl_wchar` *str, int32 c)

- OSCL_IMPORT_REF const char * `oscl strrchr` (const char *str, int32 c)

- OSCL_IMPORT_REF char * `oscl strrchr` (char *str, int32 c)

- OSCL_IMPORT_REF const `oscl_wchar` * `oscl strrchr` (const `oscl_wchar` *str, int32 c)

- OSCL_IMPORT_REF `oscl_wchar` * `oscl strrchr` (`oscl_wchar` *str, int32 c)

- OSCL_IMPORT_REF char * `oscl_strset` (char *dest, char val, uint32 count)

- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strset` (`oscl_wchar` *dest, `oscl_wchar` val, uint32 count)

- OSCL_IMPORT_REF int32 `oscl_CIstrcmp` (const char *str1, const char *str2)

- OSCL_IMPORT_REF int32 `oscl_CIstrcmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2)

- OSCL_IMPORT_REF int32 `oscl_CIstrncmp` (const char *str1, const char *str2, uint32 count)

- OSCL_IMPORT_REF int32 `oscl_CIstrncmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2, uint32 count)

- OSCL_IMPORT_REF char `oscl_tolower` (const char car)

- OSCL_IMPORT_REF `oscl_wchar` `oscl_tolower` (const `oscl_wchar` car)

- OSCL_IMPORT_REF bool `oscl_isLetter` (const char car)

- OSCL_IMPORT_REF const char * `oscl strstr` (const char *str1, const char *str2)

- OSCL_IMPORT_REF char * `oscl strstr` (char *str1, const char *str2)

- OSCL_IMPORT_REF const `oscl_wchar` * `oscl strstr` (const `oscl_wchar` *str1, const `oscl_wchar` *str2)

- OSCL_IMPORT_REF `oscl_wchar` * `oscl strstr` (`oscl_wchar` *str1, const `oscl_wchar` *str2)

- OSCL_IMPORT_REF char * `oscl_streat` (char *dest, const char *src)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl_streat` (`oscl_wchar` *dest, const `oscl_wchar` *src)
- OSCL_IMPORT_REF void `PV8601ToRFC822` (`PV8601timeStrBuf` pv8601_buffer, `CtimeStrBuf` ctime_buffer)
- OSCL_IMPORT_REF void `ISO8601ToRFC822` (`ISO8601timeStrBuf` iso8601_buffer, `CtimeStrBuf` ctime_buffer)
- OSCL_IMPORT_REF void `RFC822ToPV8601` (`CtimeStrBuf` ctime_buffer, `PV8601timeStrBuf`)
- OSCL_COND_IMPORT_REF `TimeValue operator-` (const `TimeValue` &a, const `TimeValue` &b)
- OSCL_COND_IMPORT_REF `TimeValue operator+` (const `TimeValue` &a, const int32 bSeconds)
- OSCL_COND_IMPORT_REF `TimeValue operator+` (const int32 aSeconds, const `TimeValue` &b)
- OSCL_COND_IMPORT_REF `TimeValue operator-` (const `TimeValue` &a, const int32 bSeconds)
- OSCL_COND_IMPORT_REF `TimeValue operator-` (const int32 aSeconds, const `TimeValue` &b)

Variables

- const int `CTIME_BUFFER_SIZE` = 26
- const int `PV8601TIME_BUFFER_SIZE` = 21
- const int `ISO8601TIME_BUFFER_SIZE` = 21
- const long `USEC_PER_SEC` = 1000000
- const long `MSEC_PER_SEC` = 1000
- const uint32 `unix_ntp_offset` = 2208988800U
- const uint32 `OSCL_TLS_ID_MAGICNUM` = 0
- const uint32 `OSCL_TLS_ID_ERRORHOOK` = 1
- const uint32 `OSCL_TLS_ID_PVLOGGER` = 2
- const uint32 `OSCL_TLS_ID_TEST` = 3
- const uint32 `OSCL_TLS_ID_PVSCHEDULER` = 4
- const uint32 `OSCL_TLS_ID_PVERRORTRAP` = 5
- const uint32 `OSCL_TLS_ID_SDPMEDIAPARSER` = 6
- const uint32 `OSCL_TLS_ID_PAYLOADPARSER` = 7
- const uint32 `OSCL_TLS_ID_PVMFRECOGNIZER` = 8
- const uint32 `OSCL_TLS_ID_WMDRM` = 9
- const uint32 `OSCL_TLS_ID_OSCLREGISTRY` = 10
- const uint32 `OSCL_TLS_ID_SQLITE3` = 11
- const uint32 `OSCL_TLS_ID_BASE_LAST` = 11

6.2.1 Detailed Description

Additional osclbase comment

6.2.2 Define Documentation

6.2.2.1 #define ALLOC_AND_CONSTRUCT(n) alloc_and_construct(n)

6.2.2.2 #define ALLOCATE(n) allocate(n)

6.2.2.3 #define EPV_ARM_GNUC 1

6.2.2.4 #define EPV_ARM_MSEVC 3

6.2.2.5 #define EPV_ARM_RVCT 2

6.2.2.6 #define NULL (0)

The NULL_TERM_CHAR is used to terminate c-style strings.

if the NULL macro isn't already defined, then define it as zero.

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), Oscl_TAlloc< node_type, Alloc >::alloc_and_construct(), OsclMemBasicAllocDestructDealloc< T >::allocate(), OsclMemAllocDestructDealloc< T >::allocate(), OsclMemAllocator::allocate(), OsclErrorAllocator::allocate(), Oscl_TAlloc< node_type, Alloc >::allocate(), OsclSharedPtr< TheClass >::Bind(), OsclErrorAllocator::deallocate(), OsclSharedPtr< TheClass >::get_count(), OSCL_wHeapString< Alloc >::get_cstr(), OSCL_HeapString< Alloc >::get_cstr(), OSCL_wHeapString< Alloc >::get_str(), OSCL_HeapString< Alloc >::get_str(), BufFragGroup< ChainClass, max_frags >::GetBufferState(), OsclRegistryClientImpl::GetFactory(), BufFragGroup< ChainClass, max_frags >::GetFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetMediaFragment(), Oscl_TagTree< PVLogger *, alloc_type >::insert(), PVActiveBase::IsInAnyQ(), MediaData< ChainClass, max_frags, local_bufsize >::IsLocalData(), LinkedListElement< LLClass >::LinkedListElement(), OsclDoubleRunner< T >::operator T *(), OsclDoubleRunner< T >::operator++(), OSCL_HeapString< Alloc >::OSCL_HeapString(), OSCL_StackString< MaxBufSize >::OSCL_StackString(), Oscl_TagTree< PVLogger *, alloc_type >::Oscl_TagTree(), OSCL_wHeapString< Alloc >::OSCL_wHeapString(), OSCL_wStackString< MaxBufSize >::OSCL_wStackString(), OsclDoubleRunner< T >::OsclDoubleRunner(), OsclMemStatsNode::OsclMemStatsNode(), OsclRefCounterDA::OsclRefCounterDA(), OsclRefCounterMTDA< LockType >::OsclRefCounterMTDA(), OsclRefCounterMTSA< DeallocType, LockType >::OsclRefCounterMTSA(), OsclRefCounterSA< DeallocType >::OsclRefCounterSA(), OsclSocketServIBase::OsclSocketServIBase(), OsclTrapStackItem::OsclTrapStackItem(), OsclExclusivePtrA< T, Alloc >::release(), OsclExclusiveArrayPtr< T >::release(), OsclExclusivePtr< T >::release(), OsclSocketServRequestList::Remove(), OSCL_wStackString< MaxBufSize >::set(), OSCL_StackString< MaxBufSize >::set(), OsclExclusivePtrA< T, Alloc >::set(), OsclExclusiveArrayPtr< T >::set(), OsclExclusivePtr< T >::set(), TReadyQueLink::TReadyQueLink(), OsclSharedPtr< TheClass >::Unbind(), OsclSharedPtr< TheClass >::~OsclSharedPtr(), and OsclTimer< Alloc >::~OsclTimer().

6.2.2.7 #define OSCL_ABS(a) ((a) > (0) ? (a) : -(a))

Referenced by OsclTimer< Alloc >::TimerBaseElapsed().

6.2.2.8 #define OSCL_ASSERT(_expr) ((_expr)?((void)0):OSCLAssert#(_expr,_FILE_,_LINE_))

Referenced by OsclErrorAllocator::allocate(), OsclPtr::Append(), Oscl_Queue< T, Alloc >::back(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::compare_EQ(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::compare_LT(), OsclErrorAllocator::deallocate(), Oscl_Queue< T, Alloc >::front(), OsclTLSRegistryEx::getInstance(), OsclSingletonRegistryEx::getInstance(), OsclJump::Jump(), OsclPtrC::Left(), OsclSingletonRegistryEx::lockAndGetInstance(), OsclRefCounterDA::OsclRefCounterDA(), OsclRefCounterMTDA< LockType >::OsclRefCounterMTDA(), OsclRefCounterMTSA< DeallocType, LockType >::OsclRefCounterMTSA(), OsclRefCounterSA< DeallocType >::OsclRefCounterSA(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::pop_back(), OsclTLSRegistryEx::registerInstance(), OsclSingletonRegistryEx::registerInstance(), OsclSingletonRegistryEx::registerInstanceAndUnlock(), OsclPtrC::Right(), OsclPtr::SetLength(), OsclPtrC::SetLength(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::swap(), OsclJump::Top(), and OsclJump::~OsclJump().

6.2.2.9 #define OSCL_COND_EXPORT_REF
6.2.2.10 #define OSCL_COND_IMPORT_REF
6.2.2.11 #define OSCL_CONST_CAST(type, exp) ((type)(exp))

Type casting macros.

Parameters

type Destination type of cast

exp Expression to cast

6.2.2.12 #define OSCL_DISABLE_WARNING_RETURN_TYPE_NOT_UDT
6.2.2.13 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
6.2.2.14 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
6.2.2.15 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
6.2.2.16 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
6.2.2.17 #define OSCL_DLL_ENTRY_POINT() void oscl_dll_entry_point() {}

DLL entry/exit point.

Allows you to define custom operations at the entry and exit of the DLL. Place this macro within one source file for each DLL.

Functions with the custom commands for the DLL entry and exit point must also be defined. The entry point custom function is LocalDllEntry(), and the exit point custom function is LocalDllExit().

These functions will be called as a result of executing this macro.

Usage :

```
LocalDllEntry() { custom operations... }
LocalDllExit() { custom operations... }
OSCL_DLL_ENTRY_POINT()
```

6.2.2.18 #define OSCL_DLL_ENTRY_POINT_DEFAULT()

Default DLL entry/exit point function.

The body of the DLL entry point is given. The macro only needs to be declared within the source file.

Usage :

```
OSCL_DLL_ENTRY_POINT_DEFAULT()
```

6.2.2.19 #define OSCL_DYNAMIC_CAST(type, exp) ((type)(exp))

6.2.2.20 #define OSCL_HAS_SINGLETON_SUPPORT 1

6.2.2.21 #define OSCL_INLINE inline

6.2.2.22 #define OSCL_MAX(a, b) ((a) > (b) ? (a) : (b))

Referenced by OsclTimer< Alloc >::TimerBaseElapsed().

6.2.2.23 #define OSCL_MIN(a, b) ((a) < (b) ? (a) : (b))

6.2.2.24 #define OSCL_REINTERPRET_CAST(type, exp) ((type)(exp))

6.2.2.25 #define OSCL_STATIC_CAST(type, exp) ((type)(exp))

Referenced by Oscl_TAlloc< node_type, Alloc >::alloc_and_construct(), Oscl_TAlloc< node_type, Alloc >::alloc_and_construct_fl(), Oscl_TAlloc< node_type, Alloc >::allocate(), Oscl_TAlloc< node_type, Alloc >::allocate_fl(), GetHostByNameParam::canPersistMoreHostAddresses(), Oscl_TAlloc< node_type, Alloc >::destruct_and_dealloc(), OsclTLS< T, ID, Registry >::OsclTLS(), GetHostByNameParam::PersistHostAddress(), OsclTLS< T, ID, Registry >::set(), OsclTLSEEx< T, ID, Registry >::set(), and OsclSingletonEx< T, ID, Registry >::set().

6.2.2.26 #define OSCL_TLS_BASE_SLOTS OSCL_TLS_ID_BASE_LAST +1

6.2.2.27 #define OSCL_TLS_MAX_SLOTS (OSCL_TLS_BASE_SLOTS + OSCL_TLS_EXTERNAL_SLOTS)

6.2.2.28 #define OSCL_UNUSED_ARG(vbl) (void)(vbl)

The following two macros are used to avoid compiler warnings.

OSCL_UNUSED_ARG(vbl) is used to "reference" an otherwise unused parameter or variable, often one which is used only in an OSCL_ASSERT and thus unreferenced in release mode. **OSCL_UNUSED_RETURN(val)** provides a "return" of a value, in places which will not actually be executed, such as after an OSCL_LEAVE or Thread::exit or abort. The value needs to be of an appropriate type for the current function, though zero will usually suffice. Note that OSCL_UNUSED_RETURN will not be necessary for 'void' functions, as there is no requirement for a value-return operation.

Referenced by PVLogger::AddAppender(), PVLogger::AddFilter(), Oscl_DefAlloc::allocate_fl(), Oscl_Alloc::allocate_fl(), Oscl_TAlloc< node_type, Alloc >::deallocate(), Oscl_TAlloc< node_type, Alloc >::destroy(), OsclMemBasicAllocDestructDealloc< T >::destruct_and_dealloc(), OsclMemAllocDestructDealloc< T >::destruct_and_dealloc(), AllPassFilter::FilterOpaqueMessge(), AllPassFilter::FilterString(), OsclErrorAllocator::operator delete(), MM_AllocNode::operator new(), MM_AllocInfo::operator new(), MM_Stats_CB::operator new(), OsclMemStatsNode::operator new(), MM_FailInsertParam::operator new(), MM_Stats_t::operator new(), OsclErrorAllocator::operator new(), HeapBase::operator new[](), PVLogger::RemoveAppender(), PVLogger::SetLogLevel(), and OsclAsyncFile::Write().

6.2.2.29 #define OSCL_UNUSED_RETURN(value) return value

6.2.2.30 #define OSCL_VIRTUAL_BASE(type) type

6.2.2.31 #define PVMEM_INST_LEVEL 0

6.2.3 Typedef Documentation

6.2.3.1 typedef int c_bool

The c_bool type is mapped to an integer to provide a bool type for C interfaces.

6.2.3.2 typedef char CtimeStrBuf[CTIME_BUFFER_SIZE]

6.2.3.3 typedef OSCL_NATIVE_INT64_TYPE int64

6.2.3.4 typedef char ISO8601timeStrBuf[ISO8601TIME_BUFFER_SIZE]

6.2.3.5 typedef char mbchar

mbchar is multi-byte char (e.g., UTF-8) with null termination.

6.2.3.6 typedef uint8 octet

The octet type is meant to be used for referring to a byte or collection bytes without suggesting anything about the underlying meaning of the bytes.

6.2.3.7 typedef oscl_wchar OSCL_TCHAR

define OSCL_TCHAR

6.2.3.8 typedef OSCL_NATIVE_WCHAR_TYPE oscl_wchar

6.2.3.9 typedef void OsclAny

The OsclAny is meant to be used the context of a generic pointer (i.e., no specific type).

6.2.3.10 `typedef float OsclFloat`

The Float type defined as OsclFloat.

6.2.3.11 `typedef size_t OsclSizeT`

6.2.3.12 `typedef char PV8601timeStrBuf[PV8601TIME_BUFFER_SIZE]`

6.2.3.13 `typedef OsclAny TOsclTlsKey`

6.2.3.14 `typedef unsigned int uint`

The uint type is a convenient abbreviation for unsigned int.

6.2.3.15 `typedef OSCL_NATIVE_UINT64_TYPE uint64`

6.2.4 Enumeration Type Documentation

6.2.4.1 `enum TimeUnits`

The TimeUnits enum can be used when constructing a [TimeValue](#) class.

Enumerator:

SECONDS

MILLISECONDS

MICROSECONDS

6.2.5 Function Documentation

6.2.5.1 `OSCL_COND_IMPORT_REF void _OSCL_Abort()`

This function terminates the current process abnormally.

Referenced by OsclJump::Jump().

6.2.5.2 `void big_endian_to_host (char * data, unsigned int size)`

Convert big endian to host format.

This function takes a buffer of data which is assumed to be in big endian order and rearranges it to the native order of the machine running the code. If the machine is a big endian machine, nothing is done.

Parameters

data A pointer to the input/output buffer

size The number of bytes in the buffer.

6.2.5.3 template<class TheClass > void OsclSharedPtr< TheClass >::Bind (TheClass * *ptr*, OsclRefCounter * *in_refcnt*) [inline, inherited]

Use this function to bind an existing [OsclSharedPtr](#) to a new (unwrapped) object.

References NULL, and [OsclRefCounter::removeRef\(\)](#).

6.2.5.4 template<class TheClass > void OsclSharedPtr< TheClass >::Bind (const OsclSharedPtr< TheClass > & *inHandle*) [inline, inherited]

Use this function to bind an existing [OsclSharedPtr](#) to a already-wrapped object.

References [OsclRefCounter::addRef\(\)](#), NULL, and [OsclRefCounter::removeRef\(\)](#).

Referenced by [OsclSharedPtr< TheClass >::operator=\(\)](#), and [OsclSharedPtr< TheClass >::Unbind\(\)](#).

6.2.5.5 template<class TheClass> int OsclSharedPtr< TheClass >::get_count () [inline, inherited]

Get a count of how many references to the object exist.

References [OsclRefCounter::getCount\(\)](#), and NULL.

6.2.5.6 template<class TheClass> OsclRefCounter* OsclSharedPtr< TheClass >::GetRefCounter () [inline, inherited]

Get the refcount pointer. This should primarily be used for conversion operations.

6.2.5.7 template<class TheClass> TheClass* OsclSharedPtr< TheClass >::GetRep () [inline, inherited]

Use this function to get a pointer to the wrapped object.

Referenced by [PVLLogger::RemoveAppender\(\)](#).

6.2.5.8 void host_to_big_endian (char * *data*, unsigned int *size*)

Convert host to big endian format.

This function takes a buffer of data which is assumed to be in native host order and rearranges it to big endian format. If the machine is a big endian machine, nothing is done.

Parameters

data A pointer to the input/output buffer

size The number of bytes in the buffer.

6.2.5.9 void host_to_little_endian (char * *data*, unsigned int *size*)

Convert host to little endian format.

This function takes a buffer of data which is assumed to be in the host's native order and rearranges it to the little endian format. If the machine is a little endian machine, nothing is done.

Parameters

data A pointer to the input/output buffer
size The number of bytes in the buffer.

6.2.5.10 OSCL_IMPORT_REF void ISO8601ToRFC822 (ISO8601timeStrBuf *iso8601_buffer*, CtimeStrBuf *ctime_buffer*)

6.2.5.11 void little_endian_to_host (char * *data*, uint32 *size*)

Convert little endian to host format.

This function takes a buffer of data which is assumed to be in little endian order and rearranges it to the native order of the machine running the code. If the machine is a little endian machine, nothing is done.

Parameters

data A pointer to the input/output buffer
size The number of bytes in the buffer.

**6.2.5.12 template<class TheClass> OsclSharedPtr< TheClass >::operator TheClass * ()
[inline, inherited]**

Casting operator.

**6.2.5.13 template<class TheClass> TheClass& OsclSharedPtr< TheClass >::operator* ()
[inline, inherited]**

The indirection operator returns a reference to an object of the parameterized type.

6.2.5.14 OSCL_COND_IMPORT_REF TimeValue operator+ (const int32 *aSeconds*, const TimeValue & *b*)

6.2.5.15 OSCL_COND_IMPORT_REF TimeValue operator+ (const TimeValue & *a*, const int32 *bSeconds*)

6.2.5.16 OSCL_COND_IMPORT_REF TimeValue operator- (const int32 *aSeconds*, const TimeValue & *b*)

6.2.5.17 OSCL_COND_IMPORT_REF TimeValue operator- (const TimeValue & *a*, const int32 *bSeconds*)

6.2.5.18 OSCL_COND_IMPORT_REF TimeValue operator- (const TimeValue & *a*, const TimeValue & *b*)

**6.2.5.19 template<class TheClass> TheClass* OsclSharedPtr< TheClass >::operator-> ()
[inline, inherited]**

The dereferencing operator returns a pointer to the parameterized type and can be used to access member elements of TheClass.

6.2.5.20 template<class TheClass> OsclSharedPtr& OsclSharedPtr< TheClass >::operator= (const OsclSharedPtr< TheClass > & *inSharedPtr*) [inline, inherited]

Assignment operator.

References OsclSharedPtr< TheClass >::Bind().

6.2.5.21 template<class TheClass > bool OsclSharedPtr< TheClass >::operator== (const OsclSharedPtr< TheClass > & *b*) const [inline, inherited]

Test for equality to see if two PVHandles wrap the same object.

6.2.5.22 OSCL_IMPORT_REF void OSCL_Assert (const char * *expr*, const char * *filename*, int *line_number*)

OSCL_ASSERT macro evaluates an expression and when the result is false, prints a diagnostic message and aborts the program.

Parameters

expr is the expression to be evaluated

filename is the name of the current source file

line_number is the line number in the current source file

6.2.5.23 OSCL_IMPORT_REF int32 oscl_CIstrcmp (const oscl_wchar * *str1*, const oscl_wchar * *str2*)

Case in-sensitive string comparision.

Parameters

str1 string to compare

str2 string to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

6.2.5.24 OSCL_IMPORT_REF int32 oscl_CIstrcmp (const char * *str1*, const char * *str2*)

Case in-sensitive string comparision.

Parameters

str1 string to compare

str2 string to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

6.2.5.25 OSCL_IMPORT_REF int32 oscl_Clstrncmp (const oscl_wchar * str1, const oscl_wchar * str2, uint32 count)

Lexicographically compares(case in-sensitive), at most, the first count characters in str1 and str2 and returns a value indicating the relationship between the substrings.

Parameters

str1 string to compare
str2 string to compare
count Number of characters to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

6.2.5.26 OSCL_IMPORT_REF int32 oscl_Clstrncmp (const char * str1, const char * str2, uint32 count)

Lexicographically compares(case in-sensitive), at most, the first count characters in str1 and str2 and returns a value indicating the relationship between the substrings.

Parameters

str1 string to compare
str2 string to compare
count Number of characters to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

6.2.5.27 OSCL_IMPORT_REF bool oscl_isLetter (const char car)

check if supplied parameter is an alphabet (ASCII only).

Parameters

car

Returns

1 if car is an alphabet 0 if car is not an alphabet.

6.2.5.28 OSCL_IMPORT_REF oscl_wchar* oscl_streat (oscl_wchar * dest, const oscl_wchar * src)

Appends up to count characters from string src to string dest, and then appends a terminating null character. The initial character of src overwrites the null character at the end of dest. Subsequent characters in src are appended to dest until either the end of src is reached or count characters have been copied. If copying takes place between objects that overlap, the behavior is undefined.

Parameters

dest null terminated destination string
src source string
count number of characters to append.

Returns

dest

6.2.5.29 OSCL_IMPORT_REF char* oscl_strcat (char * dest, const char * src)

Appends string src to string dest, and then appends a terminating null character. The initial character of src overwrites the null character at the end of dest. Subsequent characters in src are appended to dest until the end of src is reached. If copying takes place between objects that overlap, the behavior is undefined.

Parameters

dest null terminated destination string
src source string

Returns

dest

6.2.5.30 OSCL_IMPORT_REF oscl_wchar* oscl_strechr (oscl_wchar * str, int32 c)**6.2.5.31 OSCL_IMPORT_REF const oscl_wchar* oscl_strechr (const oscl_wchar * str, int32 c)**

Finds the first occurrence of c in string, or it returns NULL if c is not found. The null-terminating character is included in the search.

Parameters

str null terminated source string
c character to search for

Returns**6.2.5.32 OSCL_IMPORT_REF char* oscl_strechr (char * str, int32 c)****6.2.5.33 OSCL_IMPORT_REF const char* oscl_strechr (const char * str, int32 c)**

Finds the first occurrence of c in string, or it returns NULL if c is not found. The null-terminating character is included in the search.

Parameters

str null terminated source string
c character to search for

Returns

6.2.5.34 OSCL_IMPORT_REF int32 oscl_strcmp (const oscl_wchar * str1, const oscl_wchar * str2)

Lexicographically compares two NULL terminated strings, str1 and str2, and returns a value indicating the relationship between them.

Parameters

- str1* String to compare
- str2* String to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

6.2.5.35 OSCL_IMPORT_REF int32 oscl_strcmp (const char * str1, const char * str2)

Lexicographically compares two NULL terminated strings, str1 and str2, and returns a value indicating the relationship between them.

Parameters

- str1* String to compare
- str2* String to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

Referenced by GetHostNameParam::canPersistMoreHostAddresses(), OsclNetworkAddress::operator==(), and GetHostNameParam::PersistHostAddress().

6.2.5.36 OSCL_IMPORT_REF uint32 oscl_strlen (const oscl_wchar * str)

Gets the length of a wide char string

Parameters

- str* NULL terminated string.

Returns

Returns the number of characters in string, excluding the terminal NULL.

6.2.5.37 OSCL_IMPORT_REF uint32 oscl_strlen (const char * str)

Gets the length of a string

Parameters

- str* NULL terminated string.

Returns

Returns the number of characters in string, excluding the terminal NULL.

Referenced by WStrPtrLen::operator=(), StrPtrLen::operator=(), OSCL_wStackString< MaxBufSize >::set(), OSCL_StackString< MaxBufSize >::set(), OSCL_wHeapString< Alloc >::set(), OSCL_HeapString< Alloc >::set(), StrPtrLen::StrPtrLen(), Oscl_Tag_Base::tag_cmp(), Oscl_Tag_Base::tag_copy(), Oscl_Tag_Base::tag_len(), and WStrPtrLen::WStrPtrLen().

6.2.5.38 OSCL_IMPORT_REF oscl_wchar* oscl_strncat (oscl_wchar * dest, const oscl_wchar * src, uint32 count)

Appends up to count characters from string src to string dest, and then appends a terminating null character. The initial character of src overwrites the null character at the end of dest. Subsequent characters in src are appended to dest until either the end of src is reached or count characters have been copied. If copying takes place between objects that overlap, the behavior is undefined.

Parameters

dest null terminated destination string
src source string
count number of characters to append.

Returns

dest

6.2.5.39 OSCL_IMPORT_REF char* oscl_strncat (char * dest, const char * src, uint32 count)

Appends up to count characters from string src to string dest, and then appends a terminating null character. The initial character of src overwrites the null character at the end of dest. Subsequent characters in src are appended to dest until either the end of src is reached or count characters have been copied. If copying takes place between objects that overlap, the behavior is undefined.

Parameters

dest null terminated destination string
src source string
count number of characters to append.

Returns

dest

6.2.5.40 OSCL_IMPORT_REF int32 oscl_strncmp (const oscl_wchar * str1, const oscl_wchar * str2, uint32 count)

Lexicographically compares, at most, the first count characters in str1 and str2 and returns a value indicating the relationship between the substrings.

Parameters

str1 String to compare

str2 String to compare

count Number of characters to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

6.2.5.41 OSCL_IMPORT_REF int32 oscl_strncmp (const char * *str1*, const char * *str2*, uint32 *count*)

Lexicographically compares, at most, the first count characters in str1 and str2 and returns a value indicating the relationship between the substrings.

Parameters

str1 String to compare

str2 String to compare

count Number of characters to compare

Returns

Negative if str1 < str2 Positive if str1 > str2 Zero if equal

Referenced by WStrPtrLen::operator==(), StrPtrLen::operator==(), and Oscl_Tag_Base::tag_cmp().

6.2.5.42 OSCL_IMPORT_REF oscl_wchar* oscl_strncpy (oscl_wchar * *dest*, const oscl_wchar * *src*, uint32 *count*)

Copies the chars of one string to another.

Copies the initial count characters of src to dest and returns dest. If count is less than or equal to the length of src, a null character is not appended automatically to the copied string. If count is greater than the length of src, the destination string is padded with null characters up to length count. The behavior of strncpy is undefined if the source and destination strings overlap.

Parameters

dest Destination string

src NULL terminated source string

count Number of chars to copy

Returns

Returns dest.

6.2.5.43 OSCL_IMPORT_REF char* oscl_strncpy (char * dest, const char * src, uint32 count)

Copies the chars of one string to another.

Copies the initial count characters of src to dest and returns dest. If count is less than or equal to the length of src, a null character is not appended automatically to the copied string. If count is greater than the length of src, the destination string is padded with null characters up to length count. The behavior of strncpy is undefined if the source and destination strings overlap.

Parameters

dest Destination string

src NULL terminated source string

count Number of chars to copy

Returns

Returns dest.

Referenced by Oscl_Tag_Base::tag_copy().

6.2.5.44 OSCL_IMPORT_REF oscl_wchar* oscl_strrchr (oscl_wchar * str, int32 c)**6.2.5.45 OSCL_IMPORT_REF const oscl_wchar* oscl_strrchr (const oscl_wchar * str, int32 c)****6.2.5.46 OSCL_IMPORT_REF char* oscl_strrchr (char * str, int32 c)****6.2.5.47 OSCL_IMPORT_REF const char* oscl_strrchr (const char * str, int32 c)**

Finds the last occurrence of c in string, or it returns NULL if c is not found. The null-terminating character is included in the search.

Parameters

str null terminated source string

c character to search for

Returns**6.2.5.48 OSCL_IMPORT_REF oscl_wchar* oscl_strset (oscl_wchar * dest, oscl_wchar val, uint32 count)**

Sets the characters of a string to a specified character

Parameters

dest buffer to modify

val character to set

count number of chars to set

Returns

the value of dest

6.2.5.49 OSCL_IMPORT_REF char* oscl_strset (char * dest, char val, uint32 count)

Sets the characters of a string to a specified character

Parameters

dest buffer to modify

val character to set

count number of chars to set

Returns

the value of dest

6.2.5.50 OSCL_IMPORT_REF oscl_wchar* oscl_strstr (oscl_wchar * str1, const oscl_wchar * str2)**6.2.5.51 OSCL_IMPORT_REF const oscl_wchar* oscl_strstr (const oscl_wchar * str1, const oscl_wchar * str2)**

find the occurrence of sub-string in a string.

Parameters

str1 string.

str2 sub-string

Returns

pointer to the begining of sub-string.

6.2.5.52 OSCL_IMPORT_REF char* oscl_strstr (char * str1, const char * str2)**6.2.5.53 OSCL_IMPORT_REF const char* oscl_strstr (const char * str1, const char * str2)**

find the occurrence of sub-string in a string.

Parameters

str1 string.

str2 sub-string

Returns

pointer to the begining of sub-string.

6.2.5.54 OSCL_IMPORT_REF oscl_wchar oscl_tolower (const oscl_wchar car)

convert upper case ASCII character to lower case. behaviour of this function for non-ASCII characters is not defined.

Parameters

car upper case character.

Returns

lower case character.

6.2.5.55 OSCL_IMPORT_REF char oscl_tolower (const char *car*)

convert upper case ASCII character to lower case. behaviour of this function for non-ASCII characters is not defined.

Parameters

car upper case character.

Returns

lower case character.

6.2.5.56 template<class TheClass> OsclSharedPtr< TheClass >::OsclSharedPtr (const OsclSharedPtr< TheClass > & *inSharedPtr*) [inline, inherited]

Copy constructor.

References OsclRefCounter::addRef().

6.2.5.57 template<class TheClass> OsclSharedPtr< TheClass >::OsclSharedPtr (TheClass * *inClassPtr*, OsclRefCounter * *in_refcnt*) [inline, inherited]

Constructor.

Parameters

inClassPtr A pointer to an instance of the parameterized type that the new [OsclSharedPtr](#) will wrap.

6.2.5.58 OSCL_IMPORT_REF void PV8601ToRFC822 (PV8601timeStrBuf *pv8601_buffer*, CtimeStrBuf *ctime_buffer*)**6.2.5.59 void PVOsclBase_Cleanup ()**

Cleanup OsclBase functionality OsclBase should be cleaned once OsclBase functions are no longer needed

6.2.5.60 void PVOsclBase_Init ()

Initializes OsclBase functionality. OsclBase must be initialized before any OsclBase functionality can be used.

Exceptions

leaves if out-of-memory

6.2.5.61 OSCL_IMPORT_REF void RFC822ToPV8601 (CtimeStrBuf *ctime_buffer*, PV8601timeStrBuf)

6.2.5.62 template<class TheClass> void OsclSharedPtr< TheClass >::Unbind () [inline, inherited]

Use this function of unbind an existing [OsclSharedPtr](#).

References [OsclSharedPtr< TheClass >::Bind\(\)](#), and [NULL](#).

6.2.5.63 template<class TheClass> virtual OsclSharedPtr< TheClass >::~OsclSharedPtr () [inline, virtual, inherited]

Destructor.

References [NULL](#), and [OsclRefCounter::removeRef\(\)](#).

6.2.6 Variable Documentation

- 6.2.6.1 **const int CTIME_BUFFER_SIZE = 26**
- 6.2.6.2 **const int ISO8601TIME_BUFFER_SIZE = 21**
- 6.2.6.3 **const long MSEC_PER_SEC = 1000**
- 6.2.6.4 **const uint32 OSCL_TLS_ID_BASE_LAST = 11**
- 6.2.6.5 **const uint32 OSCL_TLS_ID_ERRORHOOK = 1**
- 6.2.6.6 **const uint32 OSCL_TLS_ID_MAGICNUM = 0**
- 6.2.6.7 **const uint32 OSCL_TLS_ID_OSCLREGISTRY = 10**
- 6.2.6.8 **const uint32 OSCL_TLS_ID_PAYLOADPARSER = 7**
- 6.2.6.9 **const uint32 OSCL_TLS_ID_PVERRORTRAP = 5**
- 6.2.6.10 **const uint32 OSCL_TLS_ID_PVLOGGER = 2**
- 6.2.6.11 **const uint32 OSCL_TLS_ID_PVMFRECOGNIZER = 8**
- 6.2.6.12 **const uint32 OSCL_TLS_ID_PVSCHEDULER = 4**
- 6.2.6.13 **const uint32 OSCL_TLS_ID_SDPMEDIAPARSER = 6**
- 6.2.6.14 **const uint32 OSCL_TLS_ID_SQLITE3 = 11**
- 6.2.6.15 **const uint32 OSCL_TLS_ID_TEST = 3**
- 6.2.6.16 **const uint32 OSCL_TLS_ID_WMDRM = 9**
- 6.2.6.17 **const int PV8601TIME_BUFFER_SIZE = 21**
- 6.2.6.18 **const uint32 unix_ntp_offset = 2208988800U**
- 6.2.6.19 **const long USEC_PER_SEC = 1000000**

6.3 OSCL Memory

Data Structures

- class [OsclMem](#)
- class [OsclAuditCB](#)
- class [OsclMemAllocator](#)
- class [OsclMemBasicAllocator](#)
- class [OsclMemAllocDestructDealloc< T >](#)
- class [OsclMemBasicAllocDestructDealloc< T >](#)
- class [OsclMemGlobalAuditObject](#)
- class [HeapBase](#)
- struct [MM_Stats_t](#)
- struct [MM_FailInsertParam](#)
- class [OsclMemStatsNode](#)
- struct [MM_Stats_CB](#)
- struct [MM_AllocQueryInfo](#)
- struct [MM_AllocInfo](#)
- struct [MM_AllocNode](#)
- struct [MM_AuditOverheadStats](#)
- class [MM_Audit_Imp](#)
- class [OsclMemAudit](#)
- struct [MM_AllocBlockHdr](#)
- struct [MM_AllocBlockFence](#)
- class [OSCLMemAutoPtr< T, _Allocator >](#)

The oscl_auto_ptr class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the oscl_auto_ptr expires, its destructor uses delete to free the memory.

- class [OsclMemPoolFixedChunkAllocatorObserver](#)
- class [OsclMemPoolFixedChunkAllocator](#)
- class [OsclMemPoolResizableAllocatorObserver](#)
- class [OsclMemPoolResizableAllocatorMemoryObserver](#)
- class [OsclMemPoolResizableAllocator](#)
- class [allocator](#)

Files

- file [oscl_mem_basic_functions.h](#)

This file contains prototypes for the basic memory functions.

- file [oscl_mem.h](#)

This file contains basic memory definitions for common use across platforms.

- file [oscl_mem_audit.h](#)

This file contains the definition and partial implementation of MM_Audit class.

- file [oscl_mem_audit_internals.h](#)

This file contains the internal definitions for the mem audit library.

- file [oscl_mem_auto_ptr.h](#)

This file defines the oscl_mem_auto_ptr template class. This class is used to avoid any potential memory leaks that may arise while returning from methods in case of error.

- file [oscl_mem_mempool.h](#)

This file contains the definition of memory pool allocators.

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [OSCL_CLEANUP_BASE_CLASS\(T\)](#) _OSCL_CLEANUP_BASE_CLASS(T)
- #define [OSCL_ALLOC_NEW\(T_allocator, T, params\)](#) new(T_allocator.allocate(1)) T params
- #define [OSCL_TRAP_ALLOC_NEW\(T_ptr, T_allocator, T, params\)](#) _OSCL_TRAP_NEW(T_allocator.allocate(1),T_allocator.deallocate,T_ptr,T,params)
- #define [OSCL_ALLOC_DELETE\(ptr, T_allocator, T\)](#)
- #define [OSCL_MALLOC\(count\)](#) _oscl_malloc(count)
- #define [oscl_malloc\(a\)](#) OSCL_MALLOC(a)
- #define [OSCL_DEFAULT_MALLOC\(x\)](#) OSCL_MALLOC(x)
- #define [OSCL_AUDIT_MALLOC\(auditCB, count\)](#) _oscl_malloc(count)
- #define [OSCL_CALLOC\(num, size\)](#) _oscl_calloc(num,size)
- #define [oscl_calloc\(a, b\)](#) OSCL_CALLOC(a,b)
- #define [OSCL_AUDIT_CALLOC\(auditCB, num, size\)](#) _oscl_calloc(num,size)
- #define [OSCL_REALLOC\(ptr, new_size\)](#) _oscl_realloc(ptr,new_size)
- #define [oscl_realloc\(a, b\)](#) OSCL_REALLOC(a,b)
- #define [OSCL_AUDIT_REALLOC\(auditCB, ptr, new_size\)](#) _oscl_realloc(ptr,new_size)
- #define [OSCL_FREE\(ptr\)](#) _oscl_free(ptr)
- #define [oscl_free\(x\)](#) OSCL_FREE(x)
- #define [OSCL_DEFAULT_FREE\(x\)](#) OSCL_FREE(x)
- #define [OSCL_NEW\(T, params\)](#) new T params
- #define [OSCL_PLACEMENT_NEW\(ptr, constructor\)](#) new(ptr) constructor
- #define [OSCL_TRAP_NEW\(T_ptr, T, params\)](#) _OSCL_TRAP_NEW(_oscl_default_new(sizeof(T)),_oscl_free,T_ptr,T,params)
- #define [OSCL_AUDIT_NEW\(auditCB, T, params\)](#) new(_oscl_default_new(sizeof(T))) T params
- #define [OSCL_TRAP_AUDIT_NEW\(T_ptr, auditCB, T, params\)](#) _OSCL_TRAP_NEW(_oscl_default_new(sizeof(T)),_oscl_free,T_ptr,T,params)
- #define [OSCL_DELETE\(ptr\)](#)
- #define [OSCL_AUDIT_ARRAY_NEW\(auditCB, T, count\)](#) new(_oscl_default_new(sizeof(T)*(count))) T
- #define [OSCL_ARRAY_NEW\(T, count\)](#) new T[count]
- #define [OSCL_ARRAY_DELETE\(ptr\)](#) delete [] ptr
- #define [_OSCL_TRAP_NEW\(exp, freeFunc, T_ptr, T, params\)](#)
- #define [_OSCL_CLEANUP_BASE_CLASS\(T\)](#) this->T::~T()
- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [MM_ALLOC_MAX_QUERY_FILENAME_LEN](#) 128
- #define [MM_ALLOC_MAX_QUERY_TAG_LEN](#) 64
- #define [MM_AUDIT_VALIDATE_BLOCK](#) 1
- #define [MM_AUDIT_PREFILL_FLAG](#) 0x1
- #define [MM_AUDIT_POSTFILL_FLAG](#) 0x2

- #define MM_AUDIT_VALIDATE_ALL_HEAP_FLAG 0x4
- #define MM_AUDIT_VALIDATE_ON_FREE_FLAG 0x8
- #define MM_AUDIT_ALLOC_NODE_ENABLE_FLAG 0x10
- #define MM_AUDIT_SUPPRESS_FILENAME_FLAG 0x20
- #define DEFAULT_MM_AUDIT_MODE 0
- #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
- #define MM_AUDIT_ALLOC_NODE_SUPPORT 1
- #define MM_AUDIT_FENCE_SUPPORT 0
- #define MM_AUDIT_INCLUDE_ALL_HEAP_VALIDATION 1
- #define MM_AUDIT_FILL_SUPPORT 0
- #define MM_AUDIT_FAILURE_SIMULATION_SUPPORT 1
- #define FENCE_PATTERN 0xAA
- #define MIN_FENCE_SIZE 4
- #define MEM_ALIGN_SIZE 8
- #define COMPUTE_MEM_ALIGN_SIZE(x, y, z) (y+(((x+y)%z) ? (z - (x+y)%z) : 0))
- #define DEFAULT_PREFILL_PATTERN 0x96
- #define DEFAULT_POSTFILL_PATTERN 0x5A
- #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
- #define OSCL_DISABLE_WARNING_RETURN_TYPE_NOT_UDT

Typedefs

- typedef OSCLMemAutoPtr< char, Oscl_TAlloc< char, OsclMemBasicAllocator > > MMAuditCharAutoPtr
- typedef OSCLMemAutoPtr< uint8, Oscl_TAlloc< uint8, _OsclBasicAllocator > > MMAuditUInt8AutoPtr
- typedef OSCLMemAutoPtr< MM_AllocNode, Oscl_TAlloc< MM_AllocNode, OsclMemBasicAllocator > > MM_AllocNodeAutoPtr
- typedef OSCLMemAutoPtr< OsclMemStatsNode, Oscl_TAlloc< OsclMemStatsNode, OsclMemBasicAllocator > > MM_StatsNodeTagTreeType
- typedef OSCLMemAutoPtr< OsclMemStatsNode, Oscl_TAlloc< OsclMemStatsNode, OsclMemBasicAllocator > > OsclMemStatsNodeAutoPtr
- typedef Oscl_TAlloc< MM_StatsNodeTagTreeType, OsclMemBasicAllocator > TagTree_Allocator
- typedef Oscl_TagTree< MM_StatsNodeTagTreeType, TagTree_Allocator > OsclTagTreeType

Functions

- OSCL_COND_IMPORT_REF void * _oscl_malloc (int32 count)
- OSCL_COND_IMPORT_REF void * _oscl_calloc (int32 nelems, int32 size)
- OSCL_COND_IMPORT_REF void * _oscl_realloc (void *src, int32 count)
- OSCL_COND_IMPORT_REF void _oscl_free (void *src)
- OSCL_COND_IMPORT_REF void * oscl_memcpy (void *dest, const void *src, uint32 count)
- OSCL_COND_IMPORT_REF void * oscl_memmove (void *dest, const void *src, uint32 count)
- OSCL_COND_IMPORT_REF void * oscl_memmove32 (void *dest, const void *src, uint32 count)
- OSCL_COND_IMPORT_REF void * oscl_memset (void *dest, uint8 val, uint32 count)
- OSCL_COND_IMPORT_REF int oscl_memcmp (const void *buf1, const void *buf2, uint32 count)
- OSCL_COND_IMPORT_REF uint oscl_mem_aligned_size (uint size)
- OSCL_IMPORT_REF void OsclMemInit (OsclAuditCB &auditCB)
- OSCL_IMPORT_REF void * _oscl_default_new (size_t nBytes)

- void * **operator new** (size_t aSize)
- void **operator delete** (void *aPtr)
- void * **operator new[]** (size_t aSize)
- void **operator delete[]** (void *aPtr)

Variables

- static const uint32 **MM_AllocBlockHdr::ALLOC_NODE_FLAG** = 0x80000000

6.3.1 Define Documentation

6.3.1.1 #define _OSCL_CLEANUP_BASE_CLASS(T) this->T::~T()

This macro is used to cleanup the base class in a derived-class constructor just before a leave occurs.

Parameters

T,: base class name.

6.3.1.2 #define _OSCL_TRAP_NEW(exp, freeFunc, T_ptr, T, params)

Value:

```
{\
    int32 __err; \
    OsclAny*__ptr=exp; \
    OSCL_TRY(__err,T_ptr=new(__ptr) T params); \
    if(__err){ \
        freeFunc(__ptr); \
        T_ptr=NULL; \
        OsclError::Leave(__err); \
    } \
}
```

Internal-use macro to catch leaves in constructors. If the constructor leaves, this will free the memory before allowing the leave to propagate to the next level. It is the constructor's responsibility to cleanup any memory in the partially constructed object before leaving. This cleanup may include cleaning up the base class using the OSCL_CLEANUP_BASE_CLASS macro.

Parameters

exp,: expression to allocate memory.

Tptr:variable to hold result.

T,: type

params,: constructor arg list

freeFunc,: delete or free function.

6.3.1.3 #define COMPUTE_MEM_ALIGN_SIZE(x, y, z) (y+(((x+y)%z) ? (z - (x+y)%z) : 0))

6.3.1.4 #define DEFAULT_MM_AUDIT_MODE 0

6.3.1.5 #define DEFAULT_POSTFILL_PATTERN 0x5A

6.3.1.6 #define DEFAULT_PREFILL_PATTERN 0x96

6.3.1.7 #define FENCE_PATTERN 0xAA

Referenced by MM_AllocBlockFence::check_fence(), and MM_AllocBlockFence::fill_fence().

6.3.1.8 #define MEM_ALIGN_SIZE 8

6.3.1.9 #define MIN_FENCE_SIZE 4

6.3.1.10 #define MM_ALLOC_MAX_QUERY_FILENAME_LEN 128

6.3.1.11 #define MM_ALLOC_MAX_QUERY_TAG_LEN 64

6.3.1.12 #define MM_AUDIT_ALLOC_NODE_ENABLE_FLAG 0x10

6.3.1.13 #define MM_AUDIT_ALLOC_NODE_SUPPORT 1

6.3.1.14 #define MM_AUDIT_FAILURE_SIMULATION_SUPPORT 1

6.3.1.15 #define MM_AUDIT_FENCE_SUPPORT 0

6.3.1.16 #define MM_AUDIT_FILL_SUPPORT 0

6.3.1.17 #define MM_AUDIT_INCLUDE_ALL_HEAP_VALIDATION 1

6.3.1.18 #define MM_AUDIT_POSTFILL_FLAG 0x2

6.3.1.19 #define MM_AUDIT_PREFILL_FLAG 0x1

6.3.1.20 #define MM_AUDIT_SUPPRESS_FILENAME_FLAG 0x20

6.3.1.21 #define MM_AUDIT_VALIDATE_ALL_HEAP_FLAG 0x4

6.3.1.22 #define MM_AUDIT_VALIDATE_BLOCK 1

6.3.1.23 #define MM_AUDIT_VALIDATE_ON_FREE_FLAG 0x8

6.3.1.24 #define OSCL_ALLOC_DELETE(ptr, T_allocator, T)

Value:

```
{ \
    ptr->~T(); \
    T_allocator.deallocate(ptr); \
}
```

Deletes the object of type T using the given allocator

Parameters

T_allocator allocator for objects of type T

T type of object to delete

ptr pointer to previously created object

Exceptions

none,unless thrown by the given allocator

6.3.1.25 #define OSCL_ALLOC_NEW(*T_allocator*, *T*, *params*) new(*T_allocator.allocate(1)*) *T* *params*

***** Macros for new/delete with a given allocator/deallocator. Creates an object of type T using the given allocator to acquire the memory needed.

Parameters

T_allocator allocator for objects of type T, must be an Oscl_TAlloc<T, Allocator>, where Allocator is an [Oscl_DefAlloc](#)

T type of object to create

params object initialization parameters

Returns

pointer to created object

Exceptions

none,unless thrown by the given allocator

6.3.1.26 #define OSCL_ARRAY_DELETE(*ptr*) delete [] *ptr*

Oscl array delete operator..

Parameters

ptr pointer to memory block previously allocated with OSCL_ARRAY_NEW

Returns

void

6.3.1.27 #define OSCL_ARRAY_NEW(*T*, *count*) new *T*[*count*]

Oscl array "new" operator. This uses the global memory audit object.

Parameters

T data type for 'new' operation

count number of elements to create

Returns

pointer to the newly created object array of type T

Exceptions

may leave with code = bad alloc

6.3.1.28 #define OSCL_AUDIT_ARRAY_NEW(auditCB, T, count) new(_oscl_default_- new(sizeof(T)*(count))) T

***** Macros for array new/delete with memory management. These only work for simple array types and cannot be used for class types with constructor/destructors.

Note: some compilers do not support placement array new operator, so these macros don't use it. Oscl array "new" operator. This uses the input memory audit object.

Parameters

auditCB input memory management audit object

T data type for 'new' operation

count number of elements to create

Returns

pointer to the newly created object array of type T

Exceptions

may leave with code = bad alloc

6.3.1.29 #define OSCL_AUDIT_CALLOC(auditCB, num, size) _oscl_calloc(num,size)

Allocates a memory block using the specified audit object. The block is initialized to zero.

Parameters

auditCB input memory management audit object

num number of elements

size number of bytes to allocate for each element

Returns

a void pointer to the allocated space, or NULL if there is insufficient memory available.

Exceptions

none

6.3.1.30 #define OSCL_AUDIT_MALLOC(auditCB, count) _oscl_malloc(count)

Allocates a memory block using the given audit object.

Parameters

auditCB input memory management audit object
count number of bytes to allocate

Returns

a void pointer to the allocated space, or NULL if there is insufficient memory available.

Exceptions

none

**6.3.1.31 #define OSCL_AUDIT_NEW(auditCB, T, params) new(_oscl_default_new(sizeof(T))) T
params**

Oscl "new" operator. This uses the specified memory audit object.

Parameters

auditCB input memory management audit object
T data type for 'new' operation
params object initialization parameters

Returns

pointer to the newly created object of type T

Exceptions

may leave with code = bad alloc

6.3.1.32 #define OSCL_AUDIT_REALLOC(auditCB, ptr, new_size) _oscl_realloc(ptr,new_size)

Re-Allocates a memory block using the specified audit object.

Parameters

auditCB input memory management audit object
ptr original memory block
new_size New size of the block

Returns

a void pointer to the allocated space, or NULL if there is insufficient memory available.

Exceptions

none

6.3.1.33 #define oscl_calloc(a, b) OSCL_CALLOC(a,b)**6.3.1.34 #define OSCL_CALLOC(num, size) _oscl_calloc(num,size)**

Allocates a memory block using the memory management's global audit object. The block is initialized to zero.

Parameters

num number of elements

size number of bytes to allocate for each element

Returns

a void pointer to the allocated space, or NULL if there is insufficient memory available.

Exceptions

none

6.3.1.35 #define OSCL_CLEANUP_BASE_CLASS(T) _OSCL_CLEANUP_BASE_CLASS(T)

Cleans up the base class of a partially-constructed derived class. This macro will call the destructor if necessary, based on the error-handling implementation.

Parameters

T: name of the base class.

6.3.1.36 #define OSCL_DEFAULT_FREE(x) OSCL_FREE(x)

Another back-compatibility definition.

6.3.1.37 #define OSCL_DEFAULT_MALLOC(x) OSCL_MALLOC(x)

Another back-compatibility definition.

6.3.1.38 #define OSCL_DELETE(ptr)**Value:**

```
{ \
    if(ptr) {delete (ptr); } \
}
```

Oscl "delete" operator.

Parameters

ptr pointer to memory block previously allocated with OSCL_NEW

Returns

void

Referenced by OsclBuf::Delete(), OsclBuf::NewL(), MM_AllocNode::~MM_AllocNode(), and OsclMemStatsNode::~OsclMemStatsNode().

6.3.1.39 #define OSCL_DISABLE_WARNING_RETURN_TYPE_NOT_UDT

6.3.1.40 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE

6.3.1.41 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE

6.3.1.42 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE

6.3.1.43 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE

Previously this was in oscl_mem_imp.h

6.3.1.44 #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE

Previously this was in oscl_mem_imp.h

6.3.1.45 #define oscl_free(x) OSCL_FREE(x)

6.3.1.46 #define OSCL_FREE(ptr) _oscl_free(ptr)

Deallocates or frees a memory block.

Parameters

ptr pointer to previously allocated memory block using the given audit object

Referenced by OsclMemAllocator::deallocate(), and OsclBuf::Delete().

6.3.1.47 #define oscl_malloc(a) OSCL_MALLOC(a)

6.3.1.48 #define OSCL_MALLOC(count) _oscl_malloc(count)

Allocates a memory block using the memory management's global audit object.

Parameters

count number of bytes to allocate

Returns

a void pointer to the allocated space, or NULL if there is insufficient memory available.

Exceptions

none

Referenced by OsclBuf::NewL().

6.3.1.49 #define OSCL_NEW(T, params) new T params

***** Macros for new/delete with memory management. Oscl "new" operator. This uses the global memory audit object.

Parameters

T data type for 'new' operation
params object initialization parameters

Returns

pointer to the newly created object of type T

Exceptions

may leave with code = bad alloc

Referenced by OsclBuf::NewL().

6.3.1.50 #define OSCL_PLACEMENT_NEW(ptr, constructor) new(ptr) constructor

Referenced by OsclTimer< Alloc >::OsclTimer().

6.3.1.51 #define oscl_realloc(a, b) OSCL_REALLOC(a,b)

6.3.1.52 #define OSCL_REALLOC(ptr, new_size) _oscl_realloc(ptr,new_size)

Re-Allocates a memory block using the memory management's global audit object.

Parameters

ptr original memory block
new_size New size of the block

Returns

a void pointer to the allocated space, or NULL if there is insufficient memory available.

Exceptions

none

6.3.1.53 #define OSCL_TRAP_ALLOC_NEW(T_ptr, T_allocator, T, params) _OSCL_TRAP_NEW(T_allocator.allocate(1),T_allocator.deallocate,T_ptr,T,params)

Creates an object of type T using the given allocator to acquire the memory needed. This macro is similar to OSCL_ALLOC_NEW except that it handles constructors that leave. If the constructor leaves, the destructor will be called, and allocated memory will be freed before allowing the leave to propagate to the next level.

Parameters

T_ptr variable to hold return value-- pointer to new object of type T.

T_allocator allocator for objects of type T, must be an Oscl_TAlloc<T, Allocator>, where Allocator is an [Oscl_DefAlloc](#)

T type of object to create

params object initialization parameters

Returns

pointer to created object

Exceptions

none,unless thrown by the given allocator

6.3.1.54 #define OSCL_TRAP_AUDIT_NEW(T_ptr, auditCB, T, params) _OSCL_TRAP_NEW(_oscl_default_new(sizeof(T)),_oscl_free,T_ptr,T,params)

Oscl "new" operator. This uses the specified memory audit object. This macro is similar to OSCL_AUDIT_NEW except that it will handle constructors that leave. If the constructor leaves, the destructor will be called, and allocated memory will be freed before allowing the leave to propagate to the next level.

Parameters

T_ptr variable to hold return value-- pointer to new object of type T.

auditCB input memory management audit object

T data type for 'new' operation

params object initialization parameters

Returns

pointer to the newly created object of type T

Exceptions

may leave with code = bad alloc

6.3.1.55 #define OSCL_TRAP_NEW(T_ptr, T, params) _OSCL_TRAP_NEW(_oscl_default_new(sizeof(T)),_oscl_free,T_ptr,T,params)

Oscl "new" operator. This uses the global memory audit object. This operator is similar to OSCL_NEW except that it will handle constructors that leave. If the constructor leaves, the destructor will be called, and allocated memory will be freed before allowing the leave to propagate to the next level.

Parameters

T_ptr variable to hold return value-- pointer to new object of type T.

T data type for 'new' operation

params object initialization parameters

Returns

pointer to the newly created object of type T

Exceptions

may leave with code = bad alloc

6.3.2 Typedef Documentation

- 6.3.2.1 **typedef OSCLMemAutoPtr<MM_AllocNode, Oscl_TAlloc<MM_AllocNode, OsclMemBasicAllocator> > MM_AllocNodeAutoPtr**
- 6.3.2.2 **typedef OSCLMemAutoPtr<OsclMemStatsNode, Oscl_TAlloc<OsclMemStatsNode, OsclMemBasicAllocator> > MM_StatsNodeTagTreeType**
- 6.3.2.3 **typedef OSCLMemAutoPtr<char, Oscl_TAlloc<char, OsclMemBasicAllocator> > MMAuditCharAutoPtr**
- 6.3.2.4 **typedef OSCLMemAutoPtr<uint8, Oscl_TAlloc<uint8, _OsclBasicAllocator> > MMAuditUInt8AutoPtr**
- 6.3.2.5 **typedef OSCLMemAutoPtr<OsclMemStatsNode, Oscl_TAlloc<OsclMemStatsNode, OsclMemBasicAllocator> > OsclMemStatsNodeAutoPtr**
- 6.3.2.6 **typedef Oscl_TagTree<MM_StatsNodeTagTreeType, TagTree_Allocator> OsclTagTreeType**
- 6.3.2.7 **typedef Oscl_TAlloc<MM_StatsNodeTagTreeType, OsclMemBasicAllocator> TagTree_Allocator**

6.3.3 Function Documentation

6.3.3.1 **OSCL_COND_IMPORT_REF void* _oscl_calloc (int32 *nelems*, int32 *size*)**

6.3.3.2 **OSCL_IMPORT_REF void* _oscl_default_new (size_t *nBytes*)**

***** Macros for malloc/free with memory management.

Referenced by HeapBase::operator new(), operator new[], HeapBase::operator new[](), and operator new[]().

6.3.3.3 **OSCL_COND_IMPORT_REF void _oscl_free (void * *src*)**

Referenced by OsclMemBasicAllocator::deallocate(), HeapBase::operator delete(), operator delete[], HeapBase::operator delete[](), and operator delete[]().

6.3.3.4 **OSCL_COND_IMPORT_REF void* _oscl_malloc (int32 *count*)**

Referenced by OsclMemBasicAllocator::allocate(), and OsclMemAllocator::allocate().

6.3.3.5 **OSCL_COND_IMPORT_REF void* _oscl_realloc (void * *src*, int32 *count*)**

6.3.3.6 **void operator delete (void * *aPtr*) [inline]**

References _oscl_free().

6.3.3.7 void operator delete[] (void * *aPtr*) [inline]

References _oscl_free().

6.3.3.8 void* operator new (size_t *aSize*) [inline]

References _oscl_default_new().

6.3.3.9 void* operator new[] (size_t *aSize*) [inline]

References _oscl_default_new().

6.3.3.10 OSCL_COND_IMPORT_REF uint oscl_mem_aligned_size (uint *size*)

Get memory-aligned size of an object.

Parameters

size size of object

Returns

memory-aligned size

6.3.3.11 OSCL_COND_IMPORT_REF int oscl_memcmp (const void * *buf1*, const void * *buf2*, uint32 *count*)

Compare characters in two buffers

Parameters

buf1 first buffer

buf2 second buffer

count number of bytes to compare

Returns

<0 buf1 less than buf2 0 buf1 equal to buf2 >0 buf1 greater than buf2

6.3.3.12 OSCL_COND_IMPORT_REF void* oscl_memcpy (void * *dest*, const void * *src*, uint32 *count*)

Copies characters between buffers The oscl_memcpy function copies count bytes of src to dest. If the source and destination overlap, this function does not ensure that the original source bytes in the overlapping region are copied before being overwritten. Use oscl_memmove to handle overlapping regions

Parameters

dest new buffer

src buffer to copy

count number of bytes to copy

Returns

the value of dest

Referenced by MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), OsclUuid::operator=(), and OsclUuid::OsclUuid().

6.3.3.13 OSCL_COND_IMPORT_REF void* oscl_memmove (void * *dest*, const void * *src*, uint32 *count*)

Moves chars from one buffer to another. The memmove function copies count bytes of characters from src to dest. If some regions of the source area and the destination overlap, memmove ensures that the original source bytes in the overlapping region are copied before being overwritten.

Parameters

dest new buffer

src buffer to copy

count number of bytes to copy

Returns

the value of dest

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), and OsclPtr::Append().

6.3.3.14 OSCL_COND_IMPORT_REF void* oscl_memmove32 (void * *dest*, const void * *src*, uint32 *count*)

Same functionality as oscl_memmove, yet optimized for memory aligned on 32-bit boundary

Parameters

dest new buffer

src buffer to copy

count number of bytes to copy

Returns

the value of dest

6.3.3.15 OSCL_COND_IMPORT_REF void* oscl_memset (void * *dest*, uint8 *val*, uint32 *count*)

Sets the bytes of a buffer to a specified character

Parameters

dest buffer to modify

val character to set

count number of bytes to set

Returns

the value of dest

Referenced by OsclMemBasicAllocator::allocate(), OsclMemAllocator::allocate(), BufFragGroup<ChainClass, max_frags>::BufFragGroup(), MediaData<ChainClass, max_frags, local_bufsize>::Clear(), BufFragGroup<ChainClass, max_frags>::Clear(), MM_AllocBlockFence::fill_fence(), MM_AllocInfo::MM_AllocInfo(), MM_AllocNode::MM_AllocNode(), MM_FailInsertParam::MM_FailInsertParam(), MM_Stats_CB::MM_Stats_CB(), MM_Stats_t::MM_Stats_t(), OsclUuid::OsclUuid(), MM_FailInsertParam::reset(), and MM_Stats_t::reset().

6.3.3.16 OSCL_IMPORT_REF void OsclMemInit (OsclAuditCB & *auditCB*)

Initialize an [OsclAuditCB](#) object. Sets the stats node pointer to null, and sets the audit pointer to the global audit object.

Parameters

auditCB memory management audit object

6.3.4 Variable Documentation

6.3.4.1 const uint32 MM_AllocBlockHdr::ALLOC_NODE_FLAG = 0x80000000 [static, inherited]

Referenced by MM_AllocBlockHdr::isAllocNodePtr(), and MM_AllocBlockHdr::setAllocNodeFlag().

6.4 OSCL Util

Data Structures

- class [OsclRegistryAccessClient](#)
- class [OsclRegistryClient](#)
- class [OsclRegistryClientImpl](#)
- class [OsclRegistryAccessClientImpl](#)
- class [OsclRegistryClientTlsImpl](#)
- class [OsclRegistryAccessClientTlsImpl](#)
- class [OsclRegistryAccessElement](#)
- class [OsclComponentRegistryElement](#)
- class [OsclComponentRegistryData](#)
- class [OsclComponentRegistry](#)
- class [OsclRegistryServTlsImpl](#)
- class [OsclBinStream](#)
- class [OsclBinIStream](#)
- class [OsclBinIStreamLittleEndian](#)
- class [OsclBinIStreamBigEndian](#)
- class [OsclBinOStream](#)

Class [OsclBinOStream](#) implements the basic stream functions for an output stream.

- class [OsclBinOStreamLittleEndian](#)

Class [OsclBinOStreamLittleEndian](#) implements a binary output stream using little endian byte ordering.

- class [OsclBinOStreamBigEndian](#)

Class [OsclBinOStreamBigEndian](#) implements a binary output stream using big endian byte ordering.

- class [MemAllocator< T >](#)
- class [BufferMgr](#)
- class [BufferState](#)
- class [BufferFragment](#)
- class [BufFragGroup< ChainClass, max_frags >](#)
- class [MediaData< ChainClass, max_frags, local_bufsize >](#)
- class [BufFragStatusClass](#)
- class [MediaStatusClass](#)
- class [OsclPriorityQueueBase](#)
- class [OsclCompareLess< T >](#)
- class [OsclPriorityQueue< Qelem, Alloc, Container, Compare >](#)
- class [OsclRand](#)
- struct [StrPtrLen](#)

This data structure encapsulates a set of functions used to perform.

- struct [WStrPtrLen](#)

This data structure encapsulates a set of functions used to perform.

- struct [StrCSumPtrLen](#)

same as [StrPtrLen](#), but includes checksum field and method to speed up querying

- class [OSCL_String](#)

- class [OSCL_wString](#)
- class [OSCL_HeapString< Alloc >](#)
- class [OSCL_wHeapString< Alloc >](#)
- class [OSCL_HeapStringA](#)
- class [OSCL_wHeapStringA](#)
- class [OSCL_StackString< MaxBufSize >](#)
- class [OSCL_wStackString< MaxBufSize >](#)
- class [OSCL_FastString](#)
- class [OSCL_wFastString](#)
- class [CHheapRep](#)
- class [CStackRep](#)
- class [CFastRep](#)
- class [OsclTickCount](#)

Files

- file [oscl_string_utils.h](#)
Utilities to parse and convert strings.
- file [oscl_registry_access_client.h](#)
Client-side implementation Registry Access implementation.
- file [oscl_registry_client.h](#)
Client-side implementation of OsclRegistry.
- file [oscl_registry_client_impl.h](#)
Client-side implementation of OsclRegistryInterface.
- file [oscl_registry_types.h](#)
Common types used in Oscl registry interfaces.
- file [oscl_registry_serv_impl.h](#)
Server-side implementation of OsclRegistry interfaces.
- file [oscl_registry_serv_impl.h](#)
Server-side implementation of OsclRegistry interfaces.
- file [oscl_registry_serv_impl.h](#)
Server-side implementation of OsclRegistry interfaces.
- file [oscl_bin_stream.h](#)
Defines a set of binary stream classes which handle portable input / output of binary data regardless of the native byte order.
- file [oscl_math.h](#)
Provides math functions.
- file [oscl_media_data.h](#)
Defines a container class for media data made up of a collection of memory fragments.

- file [oscl_media_status.h](#)

Defines a status values for the [MediaData](#) containers.

- file [oscl_priqueue.h](#)

Implements a priority queue data structure similar to STL.

- file [oscl_rand.h](#)

Provides pseudo-random number generation.

- file [oscl_snprintf.h](#)

Provides a portable implementation of snprintf.

- file [oscl_str_ptr_len.h](#)

Defines a data structure for string containment/manipulations where the storage for the string is maintained externally.

- file [oscl_string.h](#)

Provides a standardized set of string containers that can be used in place of character arrays.

- file [oscl_string_containers.h](#)

Provides a standardized set of string containers that can be used in place of character arrays.

- file [oscl_string_rep.h](#)

Contains some internal implementation for string containers.

- file [oscl_string_uri.h](#)

Utilities to unescape URIs.

- file [oscl_string_utf8.h](#)

Utilities to validate and truncate UTF-8 encoded strings.

- file [oscl_string_xml.h](#)

Utilities to escape special characters in XML strings.

- file [oscl_tickcount.h](#)

Defines a data structure for string containment/manipulations where the storage for the string is maintained externally.

- file [oscl_utf8conv.h](#)

Utilities to convert unicode to utf8 and vice versa.

Defines

- #define [oscl_isdigit\(c\)](#) ((c) >= '0' && (c) <= '9')
- #define [OSCLTICKCOUNT_MAX_TICKS](#) 0xffffffff
- #define [MAX_NUMBER_OF_BYTE_PER_UTF8](#) 3

Typedefs

- `typedef OsclAny * OsclComponentFactory`
- `typedef void(* BufferFreeFuncPtr)(void *)`
- `typedef uint32 MediaTimestamp`
- `typedef struct StrPtrLen StrPtrLen`

This data structure encapsulates a set of functions used to perform.

- `typedef struct WStrPtrLen WStrPtrLen`

This data structure encapsulates a set of functions used to perform.

- `typedef StrCSumPtrLen StrCSumPtrLen`

same as `StrPtrLen`, but includes checksum field and method to speed up querying

- `typedef WStrPtrLen OSCL_TStrPtrLen`

Enumerations

- `enum TOSCL_StringOp { EOSCL_StringOp_CompressASCII, EOSCL_StringOp_UTF16ToUTF8 }`
- `enum TOSCL_wStringOp { EOSCL_wStringOp_ExpandASCII, EOSCL_wStringOp_UTF8ToUTF16 }`

Functions

- `OSCL_IMPORT_REF const char * skip_whitespace (const char *ptr)`
- `OSCL_IMPORT_REF char * skip_whitespace (char *ptr)`
- `OSCL_IMPORT_REF const char * skip_whitespace (const char *start, const char *end)`
- `OSCL_IMPORT_REF const char * skip_to_whitespace (const char *start, const char *end)`
- `OSCL_IMPORT_REF const char * skip_to_line_term (const char *start_ptr, const char *end_ptr)`
- `OSCL_IMPORT_REF const char * skip_whitespace_and_line_term (const char *start, const char *end)`
- `OSCL_IMPORT_REF int extract_string (const char *in_ptr, char *outstring, int maxsize)`
- `OSCL_IMPORT_REF int extract_string (const char *start, const char *end, char *outstring, int maxsize)`
- `OSCL_IMPORT_REF bool PV_atoi (const char *buf, const char new_format, uint32 &value)`
- `OSCL_IMPORT_REF bool PV_atoi (const char *buf, const char new_format, int length, uint32 &value)`
- `OSCL_IMPORT_REF bool PV_atoi (const char *buf, const char new_format, int length, uint64 &value)`
- `OSCL_IMPORT_REF bool PV_atof (const char *buf, OsclFloat &value)`
- `OSCL_IMPORT_REF bool PV_atof (const char *buf, int length, OsclFloat &value)`
- `OSCL_IMPORT_REF int oscl_abs (int aVal)`
- `OSCL_COND_IMPORT_REF double oscl_log (double value)`
- `OSCL_COND_IMPORT_REF double oscl_log10 (double value)`
- `OSCL_COND_IMPORT_REF double oscl_sqrt (double value)`
- `OSCL_COND_IMPORT_REF double oscl_pow (double x, double y)`
- `OSCL_COND_IMPORT_REF double oscl_exp (double value)`
- `OSCL_COND_IMPORT_REF double oscl_sin (double value)`
- `OSCL_COND_IMPORT_REF double oscl_cos (double value)`

- OSCL_COND_IMPORT_REF double `oscl_tan` (double value)
- OSCL_COND_IMPORT_REF double `oscl_asin` (double value)
- OSCL_COND_IMPORT_REF double `oscl_atan` (double value)
- OSCL_COND_IMPORT_REF double `oscl_floor` (double value)
- OSCL_IMPORT_REF int32 `oscl_snprintf` (char *str, uint32 count, const char *fmt,...)
- OSCL_IMPORT_REF int32 `oscl_snprintf` (`oscl_wchar` *str, uint32 count, const `oscl_wchar` *fmt,...)
- OSCL_IMPORT_REF int32 `oscl_vsnprintf` (char *str, uint32 count, const char *fmt, va_list args)
- OSCL_IMPORT_REF int32 `oscl_vsnprintf` (`oscl_wchar` *str, uint32 count, const `oscl_wchar` *fmt, va_list args)
- OSCL_IMPORT_REF bool `oscl_str_unescape_uri` (const char *str_buf_in, char *str_buf_out, uint32 max_out_buf_bytes, uint32 max_bytes, uint32 &out_buf_len)

unescape any of the special escape sequence in the uri string
- OSCL_IMPORT_REF bool `oscl_str_unescape_uri` (const `OSCL_String` &oscl_str_in, `OSCL_String` &oscl_str_out, uint32 &out_buf_len)

unescape any of the special escape sequence in the uri string
- OSCL_IMPORT_REF bool `oscl_str_is_valid_utf8` (const uint8 *str_buf, uint32 &num_valid_characters, uint32 max_bytes=0, uint32 max_char_2_valid=0, uint32 *num_byte_4_char=NULL)

Check if the input string contains any illegal UTF-8 character. The function scans the string and validate that each character is a valid utf-8. It stops at the first NULL character, invalid character or the max_byte value. The string is valid if and only if every character is a valid utf-8 character and the scanning stopped on a character boundary.
- OSCL_IMPORT_REF int32 `oscl_str_truncate_utf8` (uint8 *str_buf, uint32 max_char, uint32 max_bytes=0)

Truncates the UTF-8 string upto the required size.
- OSCL_IMPORT_REF bool `oscl_str_need_escape_xml` (const char *str_buf, uint32 &num_escape_bytes, uint32 max_bytes=0)

Check if the input string contains any special ASCII character like &, <, >, ', ". The function scans the string and check if each character is a special character. It stops at the first NULL character (if max_bytes = 0), or the max_byte value.
- OSCL_IMPORT_REF int32 `oscl_str_escape_xml` (const char *str_buf_in, char *str_buf_out, uint32 max_out_buf_bytes, uint32 max_bytes=0, uint32 *num_bytes_written=NULL)

Escape any of the following special characters in the string Special ASCII characters: &, <, >, ', ".
- OSCL_IMPORT_REF int32 `oscl_UTF8ToUnicode` (const char *input, int32 inLength, `oscl_wchar` *output, int32 outLength)

Convert UTF8 byte sequence to Unicode UTF-16 string.
- OSCL_IMPORT_REF int32 `oscl_UnicodeToUTF8` (const `oscl_wchar` *input, int32 inLength, char *output, int32 outLength)

Convert UTF-16 Unicode string to UTF8 byte sequence.
- `BufferFragment` * `BufFragGroup::GetFragment` (const int32 idx)
- `BufferState` * `BufFragGroup::GetBufferState` (const int32 idx)
- uint32 `OSCL_HeapString::get_size` () const
- uint32 `OSCL_wHeapString::get_size` () const
- uint32 `OSCL_HeapString::get_maxsize` () const

- uint32 `OSCL_wHeapString::get_maxsize () const`
- const chartype * `OSCL_HeapString::get_cstr () const`
- const chartype * `OSCL_wHeapString::get_cstr () const`
- chartype * `OSCL_HeapString::get_str () const`
- chartype * `OSCL_wHeapString::get_str () const`
- `OSCL_HeapString::OSCL_HeapString ()`
- `OSCL_wHeapString::OSCL_wHeapString ()`
- `OSCL_HeapString::OSCL_wHeapString (const chartype *cstr)`
- `OSCL_wHeapString::OSCL_wHeapString (const chartype *cstr)`
- void `OSCL_HeapString::set (const chartype *buf, uint32 length)`
- void `OSCL_wHeapString::set (const chartype *buf, uint32 length)`
- void `OSCL_HeapString::set (const other_chartype *buf, optype op)`
- void `OSCL_wHeapString::set (const other_chartype *buf, optype op)`
- void `OSCL_HeapString::set (const other_chartype *buf, uint32 length, optype op)`
- void `OSCL_wHeapString::set (const other_chartype *buf, uint32 length, optype op)`
- `OSCL_HeapString::OSCL_HeapString (const chartype *buf, uint32 length)`
- `OSCL_wHeapString::OSCL_wHeapString (const chartype *buf, uint32 length)`
- `OSCL_HeapString::OSCL_HeapString (const OSCL_HeapString &src)`
- `OSCL_wHeapString::OSCL_wHeapString (const OSCL_wHeapString &src)`
- `OSCL_HeapString::OSCL_HeapString (const OSCL_String &src)`
- `OSCL_wHeapString::OSCL_wHeapString (const OSCL_wString &src)`
- `OSCL_HeapString::~OSCL_HeapString ()`
- `OSCL_wHeapString::~OSCL_wHeapString ()`
- `OSCL_HeapString & OSCL_HeapString::operator= (const OSCL_HeapString &src)`
- `OSCL_wHeapString & OSCL_wHeapString::operator= (const OSCL_wHeapString &src)`
- `OSCL_HeapString & OSCL_HeapString::operator= (const OSCL_String &src)`
- `OSCL_wHeapString & OSCL_wHeapString::operator= (const OSCL_wString &src)`
- `OSCL_HeapString & OSCL_HeapString::operator= (const chartype *cstr)`
- `OSCL_wHeapString & OSCL_wHeapString::operator= (const chartype *cstr)`
- uint32 `OSCL_StackString::get_size () const`
- uint32 `OSCL_wStackString::get_size () const`
- uint32 `OSCL_StackString::get_maxsize () const`
- uint32 `OSCL_wStackString::get_maxsize () const`
- const chartype * `OSCL_StackString::get_cstr () const`
- const chartype * `OSCL_wStackString::get_cstr () const`
- chartype * `OSCL_StackString::get_str () const`
- chartype * `OSCL_wStackString::get_str () const`
- `OSCL_StackString::OSCL_StackString ()`
- `OSCL_wStackString::OSCL_wStackString ()`
- `OSCL_StackString::OSCL_StackString (const chartype *cstr)`
- `OSCL_wStackString::OSCL_wStackString (const chartype *cstr)`
- void `OSCL_StackString::set (const chartype *buf, uint32 length)`
- void `OSCL_wStackString::set (const chartype *buf, uint32 length)`
- void `OSCL_StackString::set (const other_chartype *buf, optype op)`
- void `OSCL_wStackString::set (const other_chartype *buf, optype op)`
- void `OSCL_StackString::set (const other_chartype *buf, uint32 length, optype op)`
- void `OSCL_wStackString::set (const other_chartype *buf, uint32 length, optype op)`
- `OSCL_StackString::OSCL_StackString (const chartype *buf, uint32 length)`
- `OSCL_wStackString::OSCL_wStackString (const chartype *buf, uint32 length)`
- `OSCL_StackString::OSCL_StackString (const OSCL_StackString &src)`

- `OSCL_wStackString::OSCL_wStackString (const OSCL_wStackString &src)`
- `OSCL_StackString::OSCL_StackString (const OSCL_String &src)`
- `OSCL_wStackString::OSCL_wStackString (const OSCL_wString &src)`
- `OSCL_StackString::~OSCL_StackString ()`
- `OSCL_wStackString::~OSCL_wStackString ()`
- `OSCL_StackString & OSCL_StackString::operator= (const OSCL_StackString &src)`
- `OSCL_wStackString & OSCL_wStackString::operator= (const OSCL_wStackString &src)`
- `OSCL_StackString & OSCL_StackString::operator= (const OSCL_String &src)`
- `OSCL_wStackString & OSCL_wStackString::operator= (const OSCL_wString &src)`
- `OSCL_StackString & OSCL_StackString::operator= (const chartype *cstr)`
- `OSCL_wStackString & OSCL_wStackString::operator= (const chartype *cstr)`

Variables

- `const int32 APPEND_MEDIA_AT_END = -1`
- `const uint8 OSCL_ASCII_CASE_MAGIC_BIT = 0x20`

6.4.1 Define Documentation

6.4.1.1 #define MAX_NUMBER_OF_BYTE_PER_UTF8 3

Define the maximum UTF8 representation in bytes.

Todo

Handle 4-byte surrogate pair representation

6.4.1.2 #define oscl_isdigit(c) ((c) >= '0' && (c) <= '9')

6.4.1.3 #define OSCLTICKCOUNT_MAX_TICKS 0xffffffff

6.4.2 Typedef Documentation

6.4.2.1 typedef void(* BufferFreeFuncPtr)(void *)

6.4.2.2 typedef uint32 MediaTimestamp

6.4.2.3 typedef WStrPtrLen OSCL_TStrPtrLen

6.4.2.4 typedef OsclAny* OsclComponentFactory

OsclComponentFactory is an opaque pointer.

6.4.2.5 typedef StrCSumPtrLen StrCSumPtrLen

same as `StrPtrLen`, but includes checksum field and method to speed up querying

6.4.2.6 `typedef struct StrPtrLen StrPtrLen`

This data structure encapsulates a set of functions used to perform standard string operations. It should be used for null-terminated constant (non-modifiable) strings of char type.

6.4.2.7 `typedef struct WStrPtrLen WStrPtrLen`

This data structure encapsulates a set of functions used to perform standard string operations. It should be used for null-terminated constant strings (non-modifiable) of wchar type.

6.4.3 Enumeration Type Documentation

6.4.3.1 `enum TOSCL_StringOp`

Conversion operations for [OSCL_String](#) classes

Enumerator:

EOSCL_StringOp_CompressASCII
EOSCL_StringOp_UTF16ToUTF8

6.4.3.2 `enum TOSCL_wStringOp`

Conversion operations for [OSCL_wString](#) classes

Enumerator:

EOSCL_wStringOp_ExpandASCII
EOSCL_wStringOp_UTF8ToUTF16

6.4.4 Function Documentation

6.4.4.1 `OSCL_IMPORT_REF int extract_string (const char * start, const char * end, char * outstring, int maxsize)`

6.4.4.2 `OSCL_IMPORT_REF int extract_string (const char * in_ptr, char * outstring, int maxsize)`

6.4.4.3 `template<uint32 MaxBufSize> const OSCL_wStackString<MaxBufSize>::chartype * OSCL_wStackString<MaxBufSize>::get_cstr () const [inline, virtual, inherited]`

Implements [OSCL_wString](#).

References CStackRep::buffer.

Referenced by OSCL_wStackString<MaxBufSize>::set().

6.4.4.4 template<uint32 MaxBufSize> const OSCL_StackString< MaxBufSize >::chartype * OSCL_StackString< MaxBufSize >::get_cstr () const [inline, virtual, inherited]

This function returns the C-style string for read access.

Implements [OSCL_String](#).

References CStackRep::buffer.

Referenced by OSCL_StackString< MaxBufSize >::set().

6.4.4.5 template<class Alloc > const OSCL_wHeapString< Alloc >::chartype * OSCL_wHeapString< Alloc >::get_cstr () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CHheapRep::buffer, and NULL.

Referenced by OSCL_wHeapString< Alloc >::set().

6.4.4.6 template<class Alloc > const OSCL_HeapString< Alloc >::chartype * OSCL_HeapString< Alloc >::get_cstr () const [inline, virtual, inherited]

This function returns the C-style string for read access.

Implements [OSCL_String](#).

References CHheapRep::buffer, and NULL.

Referenced by OSCL_HeapString< Alloc >::set().

6.4.4.7 template<uint32 MaxBufSize> uint32 OSCL_wStackString< MaxBufSize >::get_maxsize () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CStackRep::maxsize.

6.4.4.8 template<uint32 MaxBufSize> uint32 OSCL_StackString< MaxBufSize >::get_maxsize () const [inline, virtual, inherited]

This function returns the maximum available storage size, not including null terminator. The maximum size may be larger than the current string size.

Implements [OSCL_String](#).

References CStackRep::maxsize.

6.4.4.9 template<class Alloc > uint32 OSCL_wHeapString< Alloc >::get_maxsize () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CHheapRep::maxsize.

6.4.4.10 template<class Alloc > uint32 OSCL_HeapString< Alloc >::get_maxsize () const [inline, virtual, inherited]

This function returns the maximum available storage size, not including null terminator. The maximum size may be larger than the current string size.

Implements [OSCL_String](#).

References CHeapRep::maxsize.

6.4.4.11 template<uint32 MaxBufSize> uint32 OSCL_wStackString< MaxBufSize >::get_size () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CStackRep::size.

6.4.4.12 template<uint32 MaxBufSize> uint32 OSCL_StackString< MaxBufSize >::get_size () const [inline, virtual, inherited]

Pure virtuals from [OSCL_String](#)

Implements [OSCL_String](#).

References CStackRep::size.

6.4.4.13 template<class Alloc > uint32 OSCL_wHeapString< Alloc >::get_size () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CHeapRep::size.

6.4.4.14 template<class Alloc > uint32 OSCL_HeapString< Alloc >::get_size () const [inline, virtual, inherited]

Pure virtuals from [OSCL_String](#)

Implements [OSCL_String](#).

References CHeapRep::size.

6.4.4.15 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::chartype * OSCL_wStackString< MaxBufSize >::get_str () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CStackRep::buffer.

6.4.4.16 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::chartype * OSCL_StackString< MaxBufSize >::get_str () const [inline, virtual, inherited]

This function returns the C-style string for write access. If the string is not writable it returns NULL.

Implements [OSCL_String](#).

References CStackRep::buffer.

6.4.4.17 template<class Alloc > OSCL_wHeapString< Alloc >::chartype * OSCL_wHeapString< Alloc >::get_str () const [inline, virtual, inherited]

Implements [OSCL_wString](#).

References CHheapRep::buffer, and NULL.

6.4.4.18 template<class Alloc > OSCL_HeapString< Alloc >::chartype * OSCL_HeapString< Alloc >::get_str () const [inline, virtual, inherited]

This function returns the C-style string for write access. If the string is not writable it returns NULL.

Implements [OSCL_String](#).

References CHheapRep::buffer, and NULL.

6.4.4.19 template<class ChainClass , uint32 max_frags> BufferState * BufFragGroup< ChainClass, max_frags >::GetBufferState (const int32 idx) [inline, inherited]

References BufFragGroup< ChainClass, max_frags >::buffer_states, NULL, and BufFragGroup< ChainClass, max_frags >::num_frgments.

6.4.4.20 template<class ChainClass , uint32 max_frags> BufferFragment * BufFragGroup< ChainClass, max_frags >::GetFragment (const int32 idx) [inline, inherited]

References BufFragGroup< ChainClass, max_frags >::fragments, NULL, and BufFragGroup< ChainClass, max_frags >::num_frgments.

6.4.4.21 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize > & OSCL_wStackString< MaxBufSize >::operator= (const chartype * cstr) [inline, inherited]

Reimplemented from [OSCL_wString](#).

References OSCL_wString::set_rep().

6.4.4.22 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize > & OSCL_StackString< MaxBufSize >::operator= (const chartype * cstr) [inline, inherited]

Assignment operator

Parameters

null-terminated string

Reimplemented from [OSCL_String](#).

References OSCL_wString::set_rep().

**6.4.4.23 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize > &
OSCL_wStackString< MaxBufSize >::operator= (const OSCL_wString & src) [inline, inherited]**

Reimplemented from [OSCL_wString](#).

References OSCL_wString::set_rep().

**6.4.4.24 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize > &
OSCL_StackString< MaxBufSize >::operator= (const OSCL_String & src) [inline, inherited]**

Assignment operator

Reimplemented from [OSCL_String](#).

References OSCL_wString::set_rep().

**6.4.4.25 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize > &
OSCL_wStackString< MaxBufSize >::operator= (const OSCL_wStackString< MaxBufSize > & src) [inline, inherited]**

References OSCL_wString::set_rep().

**6.4.4.26 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize > &
OSCL_StackString< MaxBufSize >::operator= (const OSCL_StackString< MaxBufSize > & src) [inline, inherited]**

Assignment operators

References OSCL_wString::set_rep().

6.4.4.27 template<class Alloc > OSCL_wHeapString< Alloc > & OSCL_wHeapString< Alloc >::operator= (const chartype * cstr) [inline, inherited]

Reimplemented from [OSCL_wString](#).

References OSCL_wString::set_rep().

6.4.4.28 template<class Alloc > OSCL_HeapString< Alloc > & OSCL_HeapString< Alloc >::operator= (const chartype * cstr) [inline, inherited]

Assignment operator

Parameters

null-terminated string

Reimplemented from [OSCL_String](#).

References OSCL_wString::set_rep().

6.4.4.29 template<class Alloc > OSCL_wHeapString< Alloc > & OSCL_wHeapString< Alloc >::operator= (const OSCL_wString & src) [inline, inherited]

Reimplemented from [OSCL_wString](#).

References OSCL_wString::set_rep().

6.4.4.30 template<class Alloc > OSCL_HeapString< Alloc > & OSCL_HeapString< Alloc >::operator= (const OSCL_String & src) [inline, inherited]

Assignment operator

Reimplemented from [OSCL_String](#).

References OSCL_wString::set_rep().

6.4.4.31 template<class Alloc > OSCL_wHeapString< Alloc > & OSCL_wHeapString< Alloc >::operator= (const OSCL_wHeapString< Alloc > & src) [inline, inherited]

References CHeapRep::assign(), and OSCL_wString::set_rep().

6.4.4.32 template<class Alloc > OSCL_HeapString< Alloc > & OSCL_HeapString< Alloc >::operator= (const OSCL_HeapString< Alloc > & src) [inline, inherited]

Assignment operators

References CHeapRep::assign(), and OSCL_wString::set_rep().

6.4.4.33 OSCL_IMPORT_REF int oscl_abs (int aVal)

6.4.4.34 OSCL_COND_IMPORT_REF double oscl_asin (double value)

Calculates the arc sine of a number

Parameters

value source value

6.4.4.35 OSCL_COND_IMPORT_REF double oscl_atan (double value)

Calculates the arc tangent of a number

Parameters

value source value

6.4.4.36 OSCL_COND_IMPORT_REF double oscl_cos (double *value*)

Calculates the cosine of a number

Parameters

value source value

6.4.4.37 OSCL_COND_IMPORT_REF double oscl_exp (double *value*)

Calculates the exponential of e for a number

Parameters

value source value

6.4.4.38 OSCL_COND_IMPORT_REF double oscl_floor (double *value*)

Calculates the floor of a number

Parameters

value source value

6.4.4.39 template<class Alloc > OSCL_HeapString< Alloc >::OSCL_HeapString (const OSCL_String & *src*) [inline, inherited]

References OSCL_wString::set_rep().

6.4.4.40 template<class Alloc > OSCL_HeapString< Alloc >::OSCL_HeapString (const OSCL_HeapString< Alloc > & *src*) [inline, inherited]

Creates a heap string that contains a copy of the input string.

Parameters

src,: input string.

References CHeapRep::assign(), and OSCL_wString::set_rep().

6.4.4.41 template<class Alloc > OSCL_HeapString< Alloc >::OSCL_HeapString (const chartype * *buf*, uint32 *length*) [inline, inherited]

Creates a heap string that contains a copy of the input string or character array.

Parameters

src,: character array, not necessarily null-terminated.

length,: number of characters to copy.

6.4.4.42 template<class Alloc > OSCL_HeapString< Alloc >::OSCL_HeapString (const chartype * *cstr*) [inline, inherited]

Creates a heap string that contains a copy of the input string.

Parameters

cp,: null-terminated string.

References OSCL_wString::set_rep().

6.4.4.43 template<class Alloc > OSCL_HeapString< Alloc >::OSCL_HeapString () [inline, inherited]

The default constructor creates an empty string.

References NULL, and OSCL_wString::set_rep().

6.4.4.44 OSCL_COND_IMPORT_REF double oscl_log (double *value*)

Calculates the natural log of a number

Parameters

value source value

6.4.4.45 OSCL_COND_IMPORT_REF double oscl_log10 (double *value*)

Calculates tthe logarithm to base 10 of a number

Parameters

value source value

6.4.4.46 OSCL_COND_IMPORT_REF double oscl_pow (double *x*, double *y*)

Calculates the value of x to the power of y

Parameters

x base value

y power

6.4.4.47 OSCL_COND_IMPORT_REF double oscl_sin (double *value*)

Calculates the sine of a number

Parameters

value source value

6.4.4.48 OSCL_IMPORT_REF int32 oscl_snprintf (oscl_wchar *str, uint32 count, const oscl_wchar *fmt, ...)

6.4.4.49 OSCL_IMPORT_REF int32 oscl_snprintf (char *str, uint32 count, const char *fmt, ...)

6.4.4.50 OSCL_COND_IMPORT_REF double oscl_sqrt (double value)

Calculates the square root of a number

Parameters

value source value

6.4.4.51 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::OSCL_StackString (const OSCL_String &src) [inline, inherited]

References OSCL_wString::set_rep().

6.4.4.52 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::OSCL_StackString (const OSCL_StackString< MaxBufSize > &src) [inline, inherited]

Creates an [OSCL_StackString](#) with a copy of the input string. The string may be truncated to fit the available storage.

Parameters

src,: input string.

References OSCL_wString::set_rep().

6.4.4.53 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::OSCL_StackString (const chartype *buf, uint32 length) [inline, inherited]

Creates an [OSCL_StackString](#) with a copy of the input string. The string may be truncated to fit the available storage.

Parameters

src,: a character array, not necessarily null-terminated.

length,: the number of characters to copy.

6.4.4.54 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::OSCL_StackString (const chartype *cstr) [inline, inherited]

Creates an [OSCL_StackString](#) with a copy of the input string. The string may be truncated to fit the available storage.

Parameters

cp,: a null-terminated string.

References OSCL_wString::set_rep().

**6.4.4.55 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::OSCL_StackString
()** [inline, inherited]

Creates an [OSCL_StackString](#) initialized with an empty string.

References NULL, and OSCL_wString::set_rep().

**6.4.4.56 OSCL_IMPORT_REF int32 oscl_str_escape_xml (const char * str_buf_in, char
* str_buf_out, uint32 max_out_buf_bytes, uint32 max_bytes = 0, uint32 *
num_bytes_written = NULL)**

Escape any of the following special characters in the string Special ASCII characters: &, <, >, ', ".

The function scans the string and replaces each special character with its corresponding escape sequence. It stops at the first NULL character, the max_byte value.

Parameters

str_buf_in Ptr to an input string

str_buf_out Ptr to an output buffer which stores the modified string

max_out_buf_bytes The size of str_buf_out.

max_bytes The maximum number of bytes to read (a zero value means read to the first NULL character). It is the length of str_buf_in.

num_bytes_written Number of bytes written in the output buffer, str_buf_out

Returns

It returns the number of bytes in the str_buf_outring if succeeded. It returns negative number if failed, and its absolute value indicates the total number bytes written to the output buffer, str_buf_out, if str_buf_out != null.

**6.4.4.57 OSCL_IMPORT_REF bool oscl_str_is_valid_utf8 (const uint8 * str_buf, uint32 &
num_valid_characters, uint32 max_bytes = 0, uint32 max_char_2_valid = 0, uint32 *
num_byte_4_char = NULL)**

Check if the input string contains any illegal UTF-8 character. The function scans the string and validate that each character is a valid utf-8. It stops at the first NULL character, invalid character or the max_byte value. The string is valid if and only if every character is a valid utf-8 character and the scanning stopped on a character boundary.

UTF-8 String Manipulation

These routines operate on UTF-8 character string.

Parameters

str_buf Ptr to an input string, which may not terminate with null, to be checked

num_valid_chars This is an output parameter which is the number of valid utf-8 characters actually read.

max_bytes The maximum number of bytes to read (a zero value means read to the first NULL character).

max_char_2_valid This is an input parameter. Specify the number of utf-8 characters the caller wants to validate.

num_byte_4_char This is an output parameter. The number of bytes used by the max_char characters

Returns

True if the string is valid and false otherwise.

6.4.4.58 OSCL_IMPORT_REF bool oscl_str_need_escape_xml (const char * str_buf, uint32 & num_escape_bytes, uint32 max_bytes = 0)

Check if the input string contains any special ASCII character like &, <, >, ', ". The function scans the string and check if each character is a special character. It stops at the first NULL character (if max_bytes = 0), or the max_byte value.

XML String Manipulation

These routines handle the special characters, which needs to be escaped, for xml document.

Parameters

str_buf Ptr to an input string, which may not terminate with null, to be checked

num_escape_bytes This is an output parameter which is the number of bytes needed to hold the result string. Value 0 indicates that there is no special character found. If max_bytes = 0, the return value does not include the null character.

max_bytes The maximum number of bytes to read (a zero value means read to the first NULL character).

Returns

True if the function succeeds, and num_escape_bytes = 0 means that no special character is found, num_escape_bytes >0 means the number of bytes of the result string. False if there is any error occurred.

6.4.4.59 OSCL_IMPORT_REF int32 oscl_str_truncate_utf8 (uint8 * str_buf, uint32 max_char, uint32 max_bytes = 0)

Truncates the UTF-8 string upto the required size.

The function will modify the str_buf so that it contains AT MOST len valid utf-8 characters. If a NULL character is found before reading len utf-8 characters, then the function does not modify the string and simply returns the number of characters. If an invalid character is found, then it will insert a NULL character after the last valid character and return the length. Otherwise, it will insert a NULL character after len valid utf-8 characters and return the length.

Parameters

str_buf Ptr to an input string which may not terminate with null

max_char The max number of the UTF-8 CHARACTERS

max_bytes The maximum number of bytes to read (a zero value means read to the first NULL character).

Returns

It returns the length of the truncated string in utf-8 characters.

6.4.4.60 OSCL_IMPORT_REF bool oscl_str_unescape_uri (const OSCL_String & *oscl_str_in*, OSCL_String & *oscl_str_out*, uint32 & *out_buf_len*)

unescape any of the special escape sequence in the uri string

The function scans the string and replaces each escape sequence with its corresponding character. It stops at the first null character, or the max_byte value. It returns false if the string contains any illegal escape sequence or the output buffer is not big enough. The out_buf_len value indicates the needed buffer length or the index of the byte that causes the error respectively.

Parameters

oscl_str_in Ptr to an input [OSCL_String](#)

oscl_str_out Ptr to an output [OSCL_String](#) which stores the modified string

out_buf_len The length of the result string (not including the null character)

Returns

It returns true if succeeds, otherwise false.

6.4.4.61 OSCL_IMPORT_REF bool oscl_str_unescape_uri (const char * *str_buf_in*, char * *str_buf_out*, uint32 *max_out_buf_bytes*, uint32 *max_bytes*, uint32 & *out_buf_len*)

unescape any of the special escape sequence in the uri string

URI String Manipualation

These routines handle all of the special escape sequences in the URI.

The function scans the string and replaces each escape sequence with its corresponding character. It stops at the first null character, or the max_byte value. It returns false if the string contains any illegal escape sequence or the output buffer is not big enough. The out_buf_len value indicates the needed buffer length or the index of the byte that causes the error respectively.

Parameters

str_buf_in Ptr to an input string

str_buf_out Ptr to an output buffer which stores the modified string

max_out_buf_bytes The size of str_buf_out.

max_bytes The maximum number of bytes to read. It is the length of str_buf_in.

out_buf_len The length of the result string (not including the null character)

Returns

It returns true if succeeds, otherwise false.

6.4.4.62 OSCL_COND_IMPORT_REF double oscl_tan (double *value*)

Calculates the tangential of a number

Parameters

value source value

6.4.4.63 OSCL_IMPORT_REF int32 oscl_UnicodeToUTF8 (const oscl_wchar * *input*, int32 *inLength*, char * *output*, int32 *outLength*)

Convert UTF-16 Unicode string to UTF8 byte sequence.

The function converts Unicode string to UTF8 byte sequence. The length of input Unicode string is specified. It stops at two conditions: (A) Whole input Unicode string is successfully converted. (B) Destination buferr is not enough for output. In case of (A), it adds a terminated ” at the end of the output UTF8 byte sequence. and returns length of the output UTF8 byte sequence(without counting terminated ”). In case of (B), it converts as much as possible to the output buffer and adds a terminated ” at the end of the output UTF8 byte sequence"(no '\0' added if outLength is less than or equal to 0, return 0)", and returns 0. Please note that Unicode character exceeding U+FFFF are not supported.

Parameters

input Ptr to an input Unicode string. ” termanation is not neccesary.

inLength The length of the input Unicode string, without counting terminated ”(if any).

output Ptr to an output buffer which output UTF8 byte sequence is written in.

outLength The size of output buffer, also the maximum number of char could be written in.

Returns

length of output (excludes ”) : completely converts all input string and appends ” to output; 0 : insufficient buffer or error in conversion

6.4.4.64 OSCL_IMPORT_REF int32 oscl_UTF8ToUnicode (const char * *input*, int32 *inLength*, oscl_wchar * *output*, int32 *outLength*)

Convert UTF8 byte sequence to Unicode UTF-16 string.

The function converts UTF8 byte sequence (or ASCII sequence) to UTF-16 string. The length of input UTF8 byte sequence is specified. It stops at two conditions: (A) Whole input UTF8 byte sequence is successfully converted. (B) Output buferr is not enough for output, or parse error. In case of (A), it adds a terminated ” at the end of the output Unicode string, and returns length of the output Unicode string(without counting terminated ”). In case of (B), it converts as much as possible to the output buffer and adds a terminated ” at the end of the output Unicode string"(no '\0' added if outLength is less than or equal to 0, return 0)", and returns 0. Please note that Unicode character exceeding U+FFFF are not supported.

Parameters

input Ptr to an input UTF8 byte sequence. ” termanation is not neccesary.

inLength The length of the input UTF8 byte sequence, without counting terminated ”(if any).

output Ptr to an output buffer which output Unicode string is written in.

outLength The size of output buffer, also the maximum number of oscl_wchar could be written in.

Returns

Length of output (excludes ”) : completely converts all input string and appends ” to output; 0 : insufficient buffer or error in conversion

- 6.4.4.65 OSCL_IMPORT_REF int32 oscl_vsnprintf (oscl_wchar *str, uint32 count, const oscl_wchar *fmt, va_list args)**
- 6.4.4.66 OSCL_IMPORT_REF int32 oscl_vsnprintf (char *str, uint32 count, const char *fmt, va_list args)**
- 6.4.4.67 template<class Alloc > OSCL_wHeapString< Alloc >::OSCL_wHeapString (const OSCL_wString & src) [inline, inherited]**

References OSCL_wString::set_rep().

- 6.4.4.68 template<class Alloc > OSCL_wHeapString< Alloc >::OSCL_wHeapString (const OSCL_wHeapString< Alloc > & src) [inline, inherited]**

References CHeapRep::assign(), and OSCL_wString::set_rep().

- 6.4.4.69 template<class Alloc > OSCL_wHeapString< Alloc >::OSCL_wHeapString (const chartype *buf, uint32 length) [inline, inherited]**
- 6.4.4.70 template<class Alloc > OSCL_wHeapString< Alloc >::OSCL_wHeapString (const chartype *cstr) [inline, inherited]**

References OSCL_wString::set_rep().

- 6.4.4.71 template<class Alloc > OSCL_wHeapString< Alloc >::OSCL_wHeapString () [inline, inherited]**

References NULL, and OSCL_wString::set_rep().

- 6.4.4.72 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::OSCL_wStackString (const OSCL_wString & src) [inline, inherited]**

References OSCL_wString::set_rep().

- 6.4.4.73 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::OSCL_wStackString (const OSCL_wStackString< MaxBufSize > & src) [inline, inherited]**

References OSCL_wString::set_rep().

- 6.4.4.74 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::OSCL_wStackString (const chartype *buf, uint32 length) [inline, inherited]**

- 6.4.4.75 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::OSCL_wStackString (const chartype *cstr) [inline, inherited]**

References OSCL_wString::set_rep().

6.4.4.76 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::OSCL_wStackString () [inline, inherited]

References NULL, and OSCL_wString::set_rep().

6.4.4.77 OSCL_IMPORT_REF bool PV_atof (const char * buf, int length, OsclFloat & value)

6.4.4.78 OSCL_IMPORT_REF bool PV_atof (const char * buf, OsclFloat & value)

6.4.4.79 OSCL_IMPORT_REF bool PV_atoi (const char * buf, const char new_format, int length, uint64 & value)

6.4.4.80 OSCL_IMPORT_REF bool PV_atoi (const char * buf, const char new_format, int length, uint32 & value)

6.4.4.81 OSCL_IMPORT_REF bool PV_atoi (const char * buf, const char new_format, uint32 & value)

6.4.4.82 template<uint32 MaxBufSize> void OSCL_wStackString< MaxBufSize >::set (const other_chartype * buf, uint32 length, optype op) [inline, inherited]

References NULL, OSCL_wString::setrep_to_wide_char(), and CStackRep::size.

6.4.4.83 template<uint32 MaxBufSize> void OSCL_StackString< MaxBufSize >::set (const other_chartype * buf, uint32 length, optype op) [inline, inherited]

Set the contents of this string to a new string or character array, with conversion operation.

Parameters

buf,: string or character array.

length,: number of characters to copy.

op,: conversion operation to apply

References NULL, OSCL_String::setrep_to_char(), and CStackRep::size.

6.4.4.84 template<uint32 MaxBufSize> void OSCL_wStackString< MaxBufSize >::set (const other_chartype * buf, optype op) [inline, inherited]

References NULL, oscl_strlen(), OSCL_wString::setrep_to_wide_char(), and CStackRep::size.

6.4.4.85 template<uint32 MaxBufSize> void OSCL_StackString< MaxBufSize >::set (const other_chartype * buf, optype op) [inline, inherited]

Set the contents of this string to a new string, with conversion operation.

Parameters

buf,: NULL-terminated wide string.

op,: conversion operation to apply

References NULL, oscl_strlen(), OSCL_String::setrep_to_char(), and CStackRep::size.

6.4.4.86 template<uint32 MaxBufSize> void OSCL_wStackString< MaxBufSize >::set (const chartype * *buf*, uint32 *length*) [inline, inherited]

References OSCL_wStackString< MaxBufSize >::get_cstr(), oscl_strlen(), CStackRep::set(), and CStackRep::size.

6.4.4.87 template<uint32 MaxBufSize> void OSCL_StackString< MaxBufSize >::set (const chartype * *buf*, uint32 *length*) [inline, inherited]

Set the contents of this string to a new string or character array.

Parameters

buf,: string or character array.

length,: number of characters to copy.

References OSCL_StackString< MaxBufSize >::get_cstr(), oscl_strlen(), CStackRep::set(), and CStackRep::size.

6.4.4.88 template<class Alloc > void OSCL_wHeapString< Alloc >::set (const other_chartype * *buf*, uint32 *length*, optype *op*) [inline, inherited]

References OSCL_wString::setrep_to_wide_char(), and CHheapRep::size.

6.4.4.89 template<class Alloc > void OSCL_HeapString< Alloc >::set (const other_chartype * *buf*, uint32 *length*, optype *op*) [inline, inherited]

Set the contents of this string to a new string or character array, with conversion operation.

Parameters

buf,: string or character array.

length,: number of characters to copy.

op,: conversion operation to apply

References OSCL_String::setrep_to_char(), and CHheapRep::size.

6.4.4.90 template<class Alloc > void OSCL_wHeapString< Alloc >::set (const other_chartype * *buf*, optype *op*) [inline, inherited]

References oscl_strlen(), OSCL_wString::setrep_to_wide_char(), and CHheapRep::size.

6.4.4.91 template<class Alloc > void OSCL_HeapString< Alloc >::set (const other_chartype * *buf*, optype *op*) [inline, inherited]

Set the contents of this string to a new string, with conversion operation.

Parameters

buf,: NULL-terminated wide string.

op,: conversion operation to apply

References oscl_strlen(), OSCL_String::setrep_to_char(), and CHeapRep::size.

6.4.4.92 template<class Alloc > void OSCL_wHeapString< Alloc >::set (const chartype * *buf*, uint32 *length*) [inline, inherited]

References OSCL_wHeapString< Alloc >::get_cstr(), oscl_strlen(), OSCL_wString::set_rep(), and CHeapRep::size.

6.4.4.93 template<class Alloc > void OSCL_HeapString< Alloc >::set (const chartype * *buf*, uint32 *length*) [inline, inherited]

Set the contents of this string to a new string or character array.

Parameters

buf,: string or character array.

length,: number of characters to copy.

References OSCL_HeapString< Alloc >::get_cstr(), oscl_strlen(), OSCL_wString::set_rep(), and CHeapRep::size.

6.4.4.94 OSCL_IMPORT_REF const char* skip_to_line_term (const char * *start_ptr*, const char * *end_ptr*)

6.4.4.95 OSCL_IMPORT_REF const char* skip_to_whitespace (const char * *start*, const char * *end*)

6.4.4.96 OSCL_IMPORT_REF const char* skip_whitespace (const char * *start*, const char * *end*)

6.4.4.97 OSCL_IMPORT_REF char* skip_whitespace (char * *ptr*)

6.4.4.98 OSCL_IMPORT_REF const char* skip_whitespace (const char * *ptr*)

6.4.4.99 OSCL_IMPORT_REF const char* skip_whitespace_and_line_term (const char * *start*, const char * *end*)

6.4.4.100 template<class Alloc > OSCL_HeapString< Alloc >::~OSCL_HeapString () [inline, inherited]

References CHeapRep::remove_ref().

6.4.4.101 template<uint32 MaxBufSize> OSCL_StackString< MaxBufSize >::~OSCL_StackString () [inline, inherited]

6.4.4.102 template<class Alloc > OSCL_wHeapString< Alloc >::~OSCL_wHeapString () [inline, inherited]

References CHeapRep::remove_ref().

6.4.4.103 template<uint32 MaxBufSize> OSCL_wStackString< MaxBufSize >::~OSCL_wStackString() [inline, inherited]

6.4.5 Variable Documentation

6.4.5.1 const int32 APPEND_MEDIA_AT_END = -1

6.4.5.2 const uint8 OSCL_ASCII_CASE_MAGIC_BIT = 0x20

Referenced by WStrPtrLen::isCIEquivalentTo(), and StrPtrLen::isCIPrefixOf().

6.5 OSCL Error

Data Structures

- class [OsclErrorTrap](#)
- class [OsclError](#)
- class [OsclSingletonRegistryEx](#)
- class [OsclSingletonEx< T, ID, Registry >](#)
- class [OsclTLSRegistryEx](#)
- class [OsclTLSEx< T, ID, Registry >](#)
- class [OsclErrorAllocator](#)

This class provides static methods to invoke the user defined memory allocation routines.

- class [internalLeave](#)
- class [OsclJump](#)
- class [OsclTrapStackItem](#)
- class [OsclTrapStack](#)
- class [OsclErrorTrapImp](#)
- class [OsclException< LeaveCode >](#)

oscl_exception.h contains all the exception handling macros and classes

- class [_OsclHeapBase](#)
- class [OsclTrapItem](#)
- class [OsclNameString< __len >](#)

Files

- file [oscl_errno.h](#)

Defines functions to access additional information on errors where supported through an errno or similar service.

- file [oscl_error.h](#)

OSCL Error trap and cleanup include file.

- file [oscl_error_allocator.h](#)

Defines a memory allocation class used by the oscl error layer.

- file [oscl_error_codes.h](#)

Defines basic error and leave codes.

- file [oscl_error_imp.h](#)

Internal error implementation support.

- file [oscl_error_imp_cppexceptions.h](#)

Implementation File for Leave using C++ exceptions.

- file [oscl_error_imp_fatalerror.h](#)

Implementation File for Leave using system fatal error.

- file [oscl_error_imp_jumps.h](#)

Implementation of using Setjmp / Longjmp.

- file [oscl_error_trapcleanup.h](#)
OSCL Error trap and cleanup implementation include file.
- file [oscl_exception.h](#)
contains all the exception handling macros and classes
- file [oscl_heapbase.h](#)
OSCL Heap Base include file.
- file [oscl_namestring.h](#)
Name string class include file.

Defines

- #define [OSCL_TRAPSTACK_PUSH\(a\)](#) OsclError::PushL(a)
- #define [OSCL_TRAPSTACK_POP\(\)](#) OsclError::Pop()
- #define [OSCL_TRAPSTACK_POPDEALLOC\(\)](#) OsclError::PopDealloc()
- #define [OsclErrNone](#) 0
- #define [OsclErrGeneral](#) 100
- #define [OsclErrNoMemory](#) 101
- #define [OsclErrCancelled](#) 102
- #define [OsclErrNotSupported](#) 103
- #define [OsclErrArgument](#) 104
- #define [OsclErrBadHandle](#) 105
- #define [OsclErrAlreadyExists](#) 106
- #define [OsclErrBusy](#) 107
- #define [OsclErrNotReady](#) 108
- #define [OsclErrCorrupt](#) 109
- #define [OsclErrTimeout](#) 110
- #define [OsclErrOverflow](#) 111
- #define [OsclErrUnderflow](#) 112
- #define [OsclErrInvalidState](#) 113
- #define [OsclErrNoResources](#) 114
- #define [OsclErrNotInstalled](#) 115
- #define [OsclErrAlreadyInstalled](#) 116
- #define [OsclErrSystemCallFailed](#) 117
- #define [OsclErrNoHandler](#) 118
- #define [OsclErrThreadContextIncorrect](#) 119
- #define [OSCL_ERR_NONE](#) OsclErrNone
- #define [OSCL_BAD_ALLOC_EXCEPTION_CODE](#) OsclErrNoMemory
- #define [OsclSuccess](#) 0
- #define [OsclPending](#) 1
- #define [OsclFailure](#) -1
- #define [PVERROR_IMP_JUMPS](#)
- #define [PVERROR_DoLeave\(\)](#) internalLeave __ilv;__ilv.a=0;throw(__ilv)
- #define [_PV_TRAP\(__r, __s\)](#)
- #define [_PV_TRAP_NO_TLS\(__trapimp, __r, __s\)](#)

- #define **PVError_DoLeave()** _OSCL_Abort()
- #define **_PV_TRAP(__r, __s)**
- #define **_PV_TRAP_NO_TLS(__tr, __r, __s)**
- #define **OSCL_JUMP_MAX_JUMP_MARKS** OSCL_MAX_TRAP_LEVELS
- #define **internalLeave (-1)**
- #define **PVError_DoLeave()** OsclJump::StaticJump(**internalLeave**)
- #define **_PV_TRAP(__r, __s)**
- #define **_PV_TRAP_NO_TLS(__trapimp, __r, __s)**
- #define **OSCL_MAX_TRAP_LEVELS** 20
- #define **PVERRORTRAP_REGISTRY_ID** OSCL_TLS_ID_PVERRORTRAP
- #define **PVERRORTRAP_REGISTRY** OsclTLSRegistry
- #define **OSCL_LEAVE(_leave_status)** OsclError::Leave(_leave_status)

Use this macro to cause a Leave. It terminates the execution of the current active function.

- #define **OSCL_TRY(_leave_status, _statements)** **_PV_TRAP(_leave_status, _statements)**

This macro will be used to set up a try block.

- #define **OSCL_TRY_NO_TLS(__trapimp, _leave_status, _statements)** **_PV_TRAP_NO_TLS(__trapimp, _leave_status, _statements)**
- #define **OSCL_FIRST_CATCH_ANY(_leave_status, _statements)** if (_leave_status!=OsclErrNone) { _statements; }

This section defines the macros to be used in the catch block following the try block.

- #define **OSCL_FIRST_CATCH(_leave_status, _catch_value, _statements)** if (_leave_status!=OsclErrNone && _leave_status == _catch_value){_statements;}

Use this macro to define a block of code that catches the first exception type thrown in the preceding try block.

- #define **OSCL_CATCH(_leave_status, _catch_value, _statements)** else if (_leave_status!=OsclErrNone && _leave_status == _catch_value){_statements;}

Use this macro to define a block of code for catching additional exception types.

- #define **OSCL_CATCH_ANY(_leave_status, _statements)** else if (_leave_status!=OsclErrNone){ _statements; }

Use this macro to call a function that will catch all remaining exception types.

- #define **OSCL_LAST_CATCH(_leave_status)** else if (_leave_status!=OsclErrNone){OSCL_LEAVE(_leave_status);}

Use this macro if OSCL_CATCH_ANY has not been used. It will mark the end of the catch block.

TypeDefs

- typedef int32 **OsclLeaveCode**
- typedef int32 **OsclReturnCode**
- typedef void(*) **OsclTrapOperation**)(OsclAny *)

Functions

- OSCL_IMPORT_REF bool **OSCL_IsErrnoSupported** ()

oscl_errno.h contains functions to access the global errno
- OSCL_IMPORT_REF int **OSCL_GetLastError** ()

This function returns the value of the system's global error number variable.
- OSCL_IMPORT_REF bool **OSCL_SetLastError** (int newVal)

This function sets the last error code for the system.
- OSCL_IMPORT_REF char * **OSCL_StrError** (int errnum)

This function maps an error number to an error-message string.

6.5.1 Define Documentation

6.5.1.1 #define _PV_TRAP(__r, __s)

Value:

```
__r=OsclErrNone; \
{ \
    OsclErrorTrapImp* __trap=OsclErrorTrapImp::Trap(); \
    if(!__trap){__s;}else{ \
        int __tr=setjmp(*(__trap->iJumpData->Top())); \
        if (__tr==0) \
            {__s;} \
        else if (__tr==internalLeave) \
            {__r=__trap->iLeave;} \
        __trap->UnTrap();} \
}
```

6.5.1.2 #define _PV_TRAP(__r, __s)

Value:

```
__r=OsclErrNone; \
{__s;}
```

6.5.1.3 #define _PV_TRAP(__r, __s)

Value:

```
__r=OsclErrNone; \
{ \
    OsclErrorTrapImp* __tr=OsclErrorTrapImp::Trap(); \
    if(!__tr){__s;}else{ \
        try{__s;} \
        catch(internalLeave __lv) \
            {__lv.a=__r=__tr->iLeave;} \
        __tr->UnTrap();} \
}
```

6.5.1.4 #define _PV_TRAP_NO_TLS(_trapimp, __r, __s)**Value:**

```
__r=OsclErrNone; \
{ \
    OsclErrorTrapImp* __trap=OsclErrorTrapImp::TrapNoTls(_trapimp); \
    if(!__trap) {__s;} else{ \
        int __tr=setjmp(*(__trap->iJumpData->Top())); \
        if (__tr==0) \
            {__s;} \
        else if (__tr==internalLeave) \
            {__r=__trap->iLeave;} \
        __trap->UnTrap();} \
}
```

6.5.1.5 #define _PV_TRAP_NO_TLS(_tr, __r, __s)**Value:**

```
__r=OsclErrNone; \
{__s;}
```

6.5.1.6 #define _PV_TRAP_NO_TLS(_trapimp, __r, __s)**Value:**

```
__r=OsclErrNone; \
{ \
    OsclErrorTrapImp* __tr=OsclErrorTrapImp::TrapNoTls(_trapimp); \
    if(!__tr) {__s;} else{ \
        try{__s;} \
        catch(internalLeave __lv) \
            {__lv.a=__r=__tr->iLeave;} \
        __tr->UnTrap();} \
}
```

6.5.1.7 #define internalLeave (-1)**6.5.1.8 #define OSCL_BAD_ALLOC_EXCEPTION_CODE OsclErrNoMemory****6.5.1.9 #define OSCL_CATCH(_leave_status, _catch_value, _statements) else if
(_leave_status!=OsclErrNone && _leave_status == _catch_value){_statements;}**

Use this macro to define a block of code for catching additional exception types.

OSCL_FIRST_CATCH can be used to catch one exception type. Then the OSCL_CATCH macro can be used to catch each subsequent type. The catch block must end with OSCL_LAST_CATCH or OSCL_CATCH_ANY

Parameters

oscl_leave_status is the result of any OSCL_THROW

exceptiontype is the exception handled by this catch block

**6.5.1.10 #define OSCL_CATCH_ANY(_leave_status, _statements) else if
(_leave_status!=OsclErrNone){ _statements;}**

Use this macro to call a function that will catch all remaining exception types.

Parameters

_leave_status

_statements is a statement or block of statements to handle all remaining exception types. This macro ends the try block.

6.5.1.11 #define OSCL_ERR_NONE OsclErrNone

For backward compatibility with old definitions

**6.5.1.12 #define OSCL_FIRST_CATCH(_leave_status, _catch_value, _statements) if
(_leave_status!=OsclErrNone && _leave_status == _catch_value){_statements;}**

Use this macro to define a block of code that catches the first exception type thrown in the preceding try block.

Parameters

oscl_leave_status is the leave code that was returned by OSCL_THROW

exceptiontype is the exception handled by this catch block This macro MUST be used in conjunction with either OSCL_LAST_CATCH or OSCL_CATCH_ANY

**6.5.1.13 #define OSCL_FIRST_CATCH_ANY(_leave_status, _statements) if
(_leave_status!=OsclErrNone) { _statements; }**

This section defines the macros to be used in the catch block following the try block.

Use this macro to call a function that handles all exception types thrown in the preceding try block

Parameters

_leave_status

_statements is a statement or block of statements that will catch all the exception types thrown by the preceding try block This is a standalone macro and should not be used with any of the macros above

6.5.1.14 #define OSCL_JUMP_MAX_JUMP_MARKS OSCL_MAX_TRAP_LEVELS

**6.5.1.15 #define OSCL_LAST_CATCH(_leave_status) else if (_leave_-
status!=OsclErrNone){OSCL_LEAVE(_leave_status);}**

Use this macro if OSCL_CATCH_ANY has not been used. It will mark the end of the catch block.

Parameters

_leave_status will be propagated up the call stack This macro will do an OSCL_LEAVE if the leave has not been handled by the calls above. This macro ends the try block.

6.5.1.16 #define OSCL_LEAVE(_leave_status) OsclError::Leave(_leave_status)

Use this macro to cause a Leave. It terminates the execution of the current active function.
It also tries to cleanup the items on the cleanup stack.

Parameters

oscl_leave_status tells the cause for the Leave

Referenced by OsclTimer< Alloc >::OsclTimer().

6.5.1.17 #define OSCL_MAX_TRAP_LEVELS 20**6.5.1.18 #define OSCL_TRAPSTACK_POP() OsclError::Pop()****6.5.1.19 #define OSCL_TRAPSTACK_POPDEALLOC() OsclError::PopDealloc()****6.5.1.20 #define OSCL_TRAPSTACK_PUSH(a) OsclError::PushL(a)**

Cleanup Stack user macros

6.5.1.21 #define OSCL_TRY(_leave_status, _statements) _PV_TRAP(_leave_status,_statements)

This macro will be used to set up a try block.

The try block identifies a block of code that might throw exceptions (or leave)

Parameters

oscl_leave_status oscl_leave_status will receive the result of any OSCL_LEAVE (which will get called from a OSCL_THROW) on systems that do not support exception handling. This is unused on systems that do support exception handling

statements is a statement or block of statements that could throw exceptions and will be executed in the try block

**6.5.1.22 #define OSCL_TRY_NO_TLS(__trapimp, _leave_status, _statements) _PV_TRAP_-
NO_TLS(__trapimp,_leave_status,_statements)****6.5.1.23 #define OsclErrAlreadyExists 106****6.5.1.24 #define OsclErrAlreadyInstalled 116****6.5.1.25 #define OsclErrArgument 104**

Referenced by OsclTimer< Alloc >::OsclTimer().

6.5.1.26 #define OsclErrBadHandle 105

6.5.1.27 #define OsclErrBusy 107

6.5.1.28 #define OsclErrCancelled 102

6.5.1.29 #define OsclErrCorrupt 109

6.5.1.30 #define OsclErrGeneral 100

Referenced by OsclSocketMethod::ConstructL(), and OsclDNSRequestAO::ConstructL().

6.5.1.31 #define OsclErrInvalidState 113

6.5.1.32 #define OsclErrNoHandler 118

6.5.1.33 #define OsclErrNoMemory 101

Referenced by OsclBuf::NewL().

6.5.1.34 #define OsclErrNone 0

6.5.1.35 #define OsclErrNoResources 114

6.5.1.36 #define OsclErrNotInstalled 115

6.5.1.37 #define OsclErrNotReady 108

6.5.1.38 #define OsclErrNotSupported 103

Referenced by OsclRegistryClientImpl::Connect(), OsclRegistryClientImpl::Register(), and OsclRegistryClientImpl::UnRegister().

6.5.1.39 #define OsclErrOverflow 111

6.5.1.40 #define OsclErrSystemCallFailed 117

6.5.1.41 #define OsclErrThreadContextIncorrect 119

6.5.1.42 #define OsclErrTimeout 110

6.5.1.43 #define OsclErrUnderflow 112

6.5.1.44 #define OsclFailure -1

6.5.1.45 #define OsclPending 1

6.5.1.46 #define OsclSuccess 0

6.5.1.47 #define PVError_DoLeave() OsclJump::StaticJump(internalLeave)

6.5.1.48 #define PVError_DoLeave() _OSCL_Abort()

6.5.1.49 #define PVError_DoLeave() internalLeave __ilv;__ilv.a=0;throw(__ilv)

6.5.1.50 #define PVERRORTRAP_IMP_JUMPS

Internal leave/trap implementation.

6.5.1.51 #define PVERRORTRAP_REGISTRY OsclTLSRegistry

6.5.1.52 #define PVERRORTRAP_REGISTRY_ID OSCL_TLS_ID_PVERRORTRAP

6.5.2 Typedef Documentation

6.5.2.1 typedef int32 OsclLeaveCode

Leave Codes

6.5.2.2 typedef int32 OsclReturnCode

Return Codes

6.5.2.3 typedef void(* OsclTrapOperation)(OsclAny *)

[OsclTrapItem](#) may be used in the cleanup stack when a custom cleanup operation is needed.

6.5.3 Function Documentation

6.5.3.1 OSCL_IMPORT_REF int OSCL_GetLastError ()

This function returns the value of the system's global error number variable.

Returns

Returns 0 for system's that do not have this functionality The value of the error number variable does not change until the user calls SetLastError or if another system call occurs that changes the value
Supported Platforms: Win32/wince, Unix
Unsupported Platforms : Symbian

6.5.3.2 OSCL_IMPORT_REF bool OSCL_IsErrnoSupported ()

[oscl_errno.h](#) contains functions to access the global errno

This function determines if a particular system saves the error number that occurs on a system call

Returns

This method returns false on systems that do not save the error number that occurs on a system call in a global variable. Returns true for systems that do save the error number

6.5.3.3 OSCL_IMPORT_REF bool OSCL_SetLastError (int newVal)

This function sets the last error code for the system.

Parameters

newVal This value represents the new value for the global error number This method can be used to reset the error number after having retrieved it using GetLastError. Supported Platforms: Win32/wince, Unix
Unsupported Platforms : Symbian

6.5.3.4 OSCL_IMPORT_REF char* OSCL_StrError (int errnum)

This function maps an error number to an error-message string.

Parameters

errnum This value represents the error number to map

Returns

This method returns a pointer to a string containing the system error-message. It returns NULL for systems that do not have this functionality Supported Platforms: Win32/wince, Unix
Unsupported Platforms : Symbian

6.6 OSCL IO

Data Structures

- class [OsclDNSObserver](#)
- class [OsclDNS](#)
- class [OsclFileCacheBuffer](#)
- class [OsclFileCache](#)
- struct [oscl_fstat](#)
- struct [oscl_stat_buf](#)
- class [Oscl_FileFind](#)
- class [OsclFileHandle](#)
- class [Oscl_File](#)
- class [OsclFileManager](#)
- class [OsclNativeFile](#)
- class [Oscl_FileServer](#)
- class [OsclFileStatsItem](#)
- class [OsclFileStats](#)
- class [OsclNativeFileParams](#)
- class [OsclSocketServ](#)
- class [OsclUDPSocket](#)
- class [OsclTCPSocket](#)

Files

- file [oscl_dns.h](#)

The file [oscl_socket.h](#) defines the OSCL DNS APIs.

- file [oscl_file_cache.h](#)

The file [oscl_file_cache.h](#) defines the class [OsclFileCache](#).

- file [oscl_file_dir_utils.h](#)

The file [oscl_file_dir_utils.h](#) defines some unix-style directory ops.

- file [oscl_file_find.h](#)

The file [oscl_file_find.h](#) defines the class [Oscl_FileFind](#).

- file [oscl_file_handle.h](#)

The file [oscl_file_handle.h](#) defines the class [OsclFileHandle](#).

- file [oscl_file_io.h](#)

The file [oscl_file_io.h](#) defines the class [Oscl_File](#). This is the public API to the basic file I/O operations.

- file [oscl_file_manager.h](#)

File management class.

- file [oscl_file_native.h](#)

The file [oscl_file_native.h](#) defines the class [OsclNativeFile](#). This is the porting layer for basic file I/O operations.

- file [oscl_file_server.h](#)

The file [oscl_file_server.h](#) defines the class [Oscl_FileServer](#). This is the porting layer for file server implementations.

- file [oscl_file_stats.h](#)

File stats class.

- file [oscl_file_types.h](#)

The file [oscl_file_types.h](#) defines some constants and types for file I/O implementations. Anything that needs to be shared across implementation modules can go here.

- file [oscl_socket.h](#)

The file [oscl_socket.h](#) defines the OSCL Socket APIs.

Defines

- #define [TOsclFileOffsetInt32](#) int32
- #define [OSCL_FILE_STATS_LOGGER_NODE](#) "OsclFileStats"
- #define [OSCL_IO_FILENAME_MAXLEN](#) 512
- #define [OSCL_IO_EXTENSION_MAXLEN](#) 512
- #define [OSCL_FILE_WCHAR_PATH_DELIMITER](#) _STRLIT("/")
- #define [OSCL_FILE_CHAR_PATH_DELIMITER](#) _STRLIT_CHAR("/")

Typedefs

- typedef struct [oscl_fsstat](#) OSCL_FSSTAT
- typedef struct [oscl_stat_buf](#) OSCL_STAT_BUF
- typedef FILE * [TOsclFileHandle](#)

Enumerations

- enum [TPVDNSFxn](#) { [EPVDNSGetHostByName](#) }
- enum [TPVDNSEvent](#) {
 [EPVDNSSuccess](#), [EPVDNSPending](#), [EPVDNSTimeout](#), [EPVDNSFailure](#),
 [EPVDNSCancel](#) }
- enum [OSCL_FILEMGMT_PERMS](#) { [OSCL_FILEMGMT_PERMS_READ](#) = 0x1, [OSCL_FILEMGMT_PERMS_WRITE](#) = 0x2, [OSCL_FILEMGMT_PERMS_EXECUTE](#) = 0x4 }
- enum [OSCL_FILEMGMT_MODES](#) { [OSCL_FILEMGMT_MODE_DIR](#) = 0x1 }
- enum [OSCL_FILEMGMT_ERR_TYPE](#) {
 [OSCL_FILEMGMT_E_OK](#) = 0, [OSCL_FILEMGMT_E_PATH_TOO_LONG](#), [OSCL_FILEMGMT_E_PATH_NOT_FOUND](#), [OSCL_FILEMGMT_E_ALREADY_EXISTS](#),
 [OSCL_FILEMGMT_E_NOT_EMPTY](#), [OSCL_FILEMGMT_E_PERMISSION_DENIED](#), [OSCL_FILEMGMT_E_NO_MATCH](#), [OSCL_FILEMGMT_E_UNKNOWN](#),
 [OSCL_FILEMGMT_E_SYS_SPECIFIC](#), [OSCL_FILEMGMT_E_NOT_IMPLEMENTED](#) }

- enum `TOsclFileOp` {

`EOsclFileOp_Open, EOscFileOp_Close, EOscFileOp_Read, EOscFileOp_Write,`

`EOscFileOp_Seek, EOscFileOp_Tell, EOscFileOp_Size, EOscFileOp_Flush,`

`EOscFileOp_EndOfFile, EOscFileOp_SetSize, EOscFileOp_NativeOpen, EOscFileOp_NativeClose,`

`EOscFileOp_NativeRead, EOscFileOp_NativeWrite, EOscFileOp_NativeSeek, EOscFileOp_NativeTell,`

`EOscFileOp_NativeSize, EOscFileOp_NativeFlush, EOscFileOp_NativeEndOfFile,`

`EOscFileOp_NativeSetSize,`

`EOscFileOp_Last }`

Functions

- virtual `OsclDNSObserver::~OsclDNSObserver()`
- `OSCL_IMPORT_REF OsclDNS::~OsclDNS()`
- `OSCL_IMPORT_REF TPVDNSEvent OsclDNS::GetHostByName (char *name, OsclNetworkAddress &addr, int32 aTimeoutMsec=-1, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aAddressList=NULL)`
- `OSCL_IMPORT_REF void OsclDNS::CancelGetHostByName()`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_getcwd (oscl_wchar *path, uint32 size)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_getcwd (char *path, uint32 size)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stat (const oscl_wchar *path, OSCL_STAT_BUF *statbuf)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stat (const char *path, OSCL_STAT_BUF *statbuf)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_mkdir (const oscl_wchar *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_mkdir (const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rmdir (const oscl_wchar *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rmdir (const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_chdir (const oscl_wchar *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_chdir (const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rename (const oscl_wchar *oldpath, const oscl_wchar *newpath)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rename (const char *oldpath, const char *newpath)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stats (OSCL_FSSTAT *stats, const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stats (OSCL_FSSTAT *stats, const oscl_wchar *path)`
- static `OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileSize (const oscl_wchar *aFileName, uint64 &aFileSize)`
- static `OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileSize (const char *aFileName, uint64 &aFileSize)`
- static `OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileCreationTime (const oscl_wchar *aFileName, uint64 &aFileCreationTime)`
- static `OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileCreationTime (const char *aFileName, uint64 &aFileCreationTime)`
- static `OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastAccessTime (const oscl_wchar *aFileName, uint64 &aFileLastAccessTime)`

- static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastAccessTime (const char *aFileName, uint64 &aFileLastAccessTime)
- static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastWriteTime (const oscl_wchar *aFileName, uint64 &aFileLastWriteTime)
- static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastWriteTime (const char *aFileName, uint64 &aFileLastWriteTime)
- static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileAttributes (const oscl_wchar *aFileName, uint32 &aFileAttributes)
- static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileAttributes (const char *aFileName, uint32 &aFileAttributes)
- static OSCL_IMPORT_REF void OsclFileManager::OsclExtractFilenameFromFullPath (const char *aPath, char *&aFileName)
- static OSCL_IMPORT_REF void OsclFileManager::OsclExtractFilenameFromFullPath (const oscl_wchar *aPath, oscl_wchar *&aFileName)
- OSCL_IMPORT_REF OsclSocketServ::~OsclSocketServ ()
- OSCL_IMPORT_REF int32 OsclSocketServ::Connect (uint32 aMessageSlots=8, bool aShareSession=false)
- OSCL_IMPORT_REF void OsclSocketServ::Close (bool aCleanup=true)
- OSCL_IMPORT_REF OsclUDPSocket::~OsclUDPSocket ()
- OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::ThreadLogoff ()
- OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::ThreadLogon (OsclSocketServ &aServ, OsclSocketObserver *aObserver)
- OSCL_IMPORT_REF int32 OsclUDPSocket::Close ()
- OSCL_IMPORT_REF int32 OsclUDPSocket::Bind (OsclNetworkAddress &aAddress)
- OSCL_IMPORT_REF int32 OsclUDPSocket::Join (OsclNetworkAddress &aAddress)
- OSCL_IMPORT_REF int32 OsclUDPSocket::JoinMulticastGroup (OsclIpMReq &aMReq)
- OSCL_IMPORT_REF int32 OsclUDPSocket::SetMulticastTTL (int32 aTTL)
- OSCL_IMPORT_REF int32 OsclUDPSocket::SetOptionToReuseAddress ()
- OSCL_IMPORT_REF int32 OsclUDPSocket::SetTOS (const OsclSocketTOS &aTOS)
- OSCL_IMPORT_REF int32 OsclUDPSocket::GetPeerName (OsclNetworkAddress &aPeerName)
- OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::BindAsync (OsclNetworkAddress &aAddress, int32 aTimeoutMsec=(-1))
- OSCL_IMPORT_REF void OsclUDPSocket::CancelBind ()
- OSCL_IMPORT_REF uint8 * OsclUDPSocket::GetRecvData (int32 *aLength)
- OSCL_IMPORT_REF uint8 * OsclUDPSocket::GetSendData (int32 *aLength)
- OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::SendTo (const uint8 *aPtr, uint32 aLen, OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void OsclUDPSocket::CancelSendTo ()
- OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::RecvFrom (uint8 *aPtr, uint32 aMaxLen, OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1, uint32 aMultiRecvLimit=0, Oscl_Vector< uint32, OsclMemAllocator > *aPacketLen=NULL, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aPacketSource=NULL)
- OSCL_IMPORT_REF void OsclUDPSocket::CancelRecvFrom ()
- OSCL_IMPORT_REF int32 OsclUDPSocket::SetRecvBufferSize (uint32 size)
- OSCL_IMPORT_REF OsclTCPSocket::~OsclTCPSocket ()
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::ThreadLogoff ()
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::ThreadLogon (OsclSocketServ &aServ, OsclSocketObserver *aObserver)
- OSCL_IMPORT_REF int32 OsclTCPSocket::Close ()
- OSCL_IMPORT_REF int32 OsclTCPSocket::Bind (OsclNetworkAddress &aAddress)

- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::BindAsync (OsclNetworkAddress &aAddress, int32 aTimeoutMsec=(-1))
- OSCL_IMPORT_REF void OsclTCPSocket::CancelBind ()
- OSCL_IMPORT_REF int32 OsclTCPSocket::SetOptionToReuseAddress ()
- OSCL_IMPORT_REF int32 OsclTCPSocket::SetTOS (const OsclSocketTOS &aTOS)
- OSCL_IMPORT_REF int32 OsclTCPSocket::GetPeerName (OsclNetworkAddress &aPeerName)
- OSCL_IMPORT_REF int32 OsclTCPSocket::Listen (int32 aQueueSize)
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::ListenAsync (int32 aQueueSize, int32 aTimeoutMsec=(-1))
- OSCL_IMPORT_REF void OsclTCPSocket::CancelListen ()
- OSCL_IMPORT_REF OsclTCPSocket * OsclTCPSocket::GetAcceptedSocketL (uint32 aId)
- OSCL_IMPORT_REF uint8 * OsclTCPSocket::GetRecvData (int32 *aLength)
- OSCL_IMPORT_REF uint8 * OsclTCPSocket::GetSendData (int32 *aLength)
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Connect (OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void OsclTCPSocket::CancelConnect ()
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Shutdown (TPVSocketShutdown aHow, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void OsclTCPSocket::CancelShutdown ()
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Accept (int32 aTimeout=-1)
- OSCL_IMPORT_REF void OsclTCPSocket::CancelAccept ()
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Send (const uint8 *aPtr, uint32 aLen, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void OsclTCPSocket::CancelSend ()
- OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Recv (uint8 *aPtr, uint32 aMaxLen, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void OsclTCPSocket::CancelRecv ()

Friends

- class OsclDNS::OsclDNSRequestAO
- class OsclSocketServ::OsclTCPSocket
- class OsclSocketServ::OsclUDPSocket
- class OsclSocketServ::OsclDNS

6.6.1 Define Documentation

6.6.1.1 `#define OSCL_FILE_CHAR_PATH_DELIMITER _STRLIT_CHAR("/")`

6.6.1.2 `#define OSCL_FILE_STATS_LOGGER_NODE "OsclFileStats"`

6.6.1.3 `#define OSCL_FILE_WCHAR_PATH_DELIMITER _STRLIT("/")`

6.6.1.4 `#define OSCL_IO_EXTENSION_MAXLEN 512`

6.6.1.5 `#define OSCL_IO_FILENAME_MAXLEN 512`

6.6.1.6 `#define TOsclFileOffsetInt32 int32`

6.6.2 Typedef Documentation

6.6.2.1 `typedef struct oscl_fsstat OSCL_FSSTAT`

6.6.2.2 `typedef struct oscl_stat_buf OSCL_STAT_BUF`

6.6.2.3 `typedef FILE* TOsclFileHandle`

`TOsclFileHandle` is an OS-native file handle type. With a class-based file API such as Symbian, a class ref is used as a file handle. For most ANSI-style file APIs, a file pointer is used as a file handle.

6.6.3 Enumeration Type Documentation

6.6.3.1 `enum OSCL_FILEMGMT_ERR_TYPE`

Enumerator:

OSCL_FILEMGMT_E_OK
OSCL_FILEMGMT_E_PATH_TOO_LONG
OSCL_FILEMGMT_E_PATH_NOT_FOUND
OSCL_FILEMGMT_E_ALREADY_EXISTS
OSCL_FILEMGMT_E_NOT_EMPTY
OSCL_FILEMGMT_E_PERMISSION_DENIED
OSCL_FILEMGMT_E_NO_MATCH
OSCL_FILEMGMT_E_UNKNOWN
OSCL_FILEMGMT_E_SYS_SPECIFIC
OSCL_FILEMGMT_E_NOT_IMPLEMENTED

6.6.3.2 `enum OSCL_FILEMGMT_MODES`

Enumerator:

OSCL_FILEMGMT_MODE_DIR

6.6.3.3 enum OSCL_FILEMGMT_PERMS

Enumerator:

OSCL_FILEMGMT_PERMS_READ
OSCL_FILEMGMT_PERMS_WRITE
OSCL_FILEMGMT_PERMS_EXECUTE

6.6.3.4 enum TOsclFileOp

Enumerator:

EOsclFileOp_Open
EOsclFileOp_Close
EOsclFileOp_Read
EOsclFileOp_Write
EOsclFileOp_Seek
EOsclFileOp_Tell
EOsclFileOp_Size
EOsclFileOp_Flush
EOsclFileOp_EndOfFile
EOsclFileOp_SetSize
EOsclFileOp_NativeOpen
EOsclFileOp_NativeClose
EOsclFileOp_NativeRead
EOsclFileOp_NativeWrite
EOsclFileOp_NativeSeek
EOsclFileOp_NativeTell
EOsclFileOp_NativeSize
EOsclFileOp_NativeFlush
EOsclFileOp_NativeEndOfFile
EOsclFileOp_NativeSetSize
EOsclFileOp_Last

6.6.3.5 enum TPVDNSEvent

Enumerator:

EPVDNSSuccess
EPVDNSPending
EPVDNSTimeout
EPVDNSFailure
EPVDNSCancel

6.6.3.6 enum TPVDNSFxn

Enumerator:

EPVNDNSGetHostName

6.6.4 Function Documentation

6.6.4.1 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Accept (int32 *aTimeout* = -1) [inherited]

Accept incoming connections. This is an asynchronous method.

Parameters

aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

6.6.4.2 OSCL_IMPORT_REF int32 OsclTCPSocket::Bind (OsclNetworkAddress & *aAddress*) [inherited]

Bind a TCP socket to an address. This is a synchronous method.

Parameters

aAddress,: Bind address.

Returns

Returns OsclErrNone for success, or a platform-specific error code.

6.6.4.3 OSCL_IMPORT_REF int32 OsclUDPSocket::Bind (OsclNetworkAddress & *aAddress*) [inherited]

Bind a UDP socket to an address. This is a synchronous method.

Parameters

aAddress,: Bind address.

Returns

Returns OsclErrNone for success, or a platform-specific error code.

**6.6.4.4 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::BindAsync
(OsclNetworkAddress & aAddress, int32 aTimeoutMsec = (-1)) [inherited]**

Bind a TCP socket to an address. This is an asynchronous method.

Parameters

aAddress,: Bind address.

aTimeoutMsec,: Optional timeout. Use a negative value for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

**6.6.4.5 OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::BindAsync
(OsclNetworkAddress & aAddress, int32 aTimeoutMsec = (-1)) [inherited]**

Bind a UDP socket to an address. This is an asynchronous method.

Parameters

aAddress,: Bind address.

aTimeoutMsec,: Optional timeout. Use a negative value for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

6.6.4.6 OSCL_IMPORT_REF void OsclTCPSocket::CancelAccept () [inherited]

Cancel Accept

This method will cancel any pending Accept operation on the current socket, causing the Accept to complete with error EPVSocketCancel. If there is no pending Accept operation, this method will have no effect.

6.6.4.7 OSCL_IMPORT_REF void OsclTCPSocket::CancelBind () [inherited]

Cancel Bind

This method will cancel any pending BindAsync operation on the current socket, causing the BindAsync to complete with error EPVSocketCancel. If there is no pending BindAsync operation, this method will have no effect.

6.6.4.8 OSCL_IMPORT_REF void OsclUDPSocket::CancelBind () [inherited]

Cancel Bind

This method will cancel any pending BindAsync operation on the current socket, causing the BindAsync to complete with error EPVSocketCancel. If there is no pending BindAsync operation, this method will have no effect.

6.6.4.9 OSCL_IMPORT_REF void OsclTCPSocket::CancelConnect () [inherited]

Cancel Connect

This method will cancel any pending Connect operation on the current socket, causing the Connect to complete with error EPVSocketCancel. If there is no pending Connect operation, this method will have no effect.

6.6.4.10 OSCL_IMPORT_REF void OsclDNS::CancelGetHostName () [inherited]

Cancel GetHostName

This method will cancel any pending GetHostName operation on the current object, causing the GetHostName to complete with error EPVDNSCancel. If there is no pending GetHostName operation, this method will have no effect.

6.6.4.11 OSCL_IMPORT_REF void OsclTCPSocket::CancelListen () [inherited]

Cancel Async Listen

This method will cancel any pending ListenAsync operation on the current socket, causing the Listen to complete with error EPVSocketCancel. If there is no pending Listen operation, this method will have no effect.

6.6.4.12 OSCL_IMPORT_REF void OsclTCPSocket::CancelRecv () [inherited]

Cancel Recv

This method will cancel any pending Recv operation on the current socket, causing the Recv to complete with error EPVSocketCancel. If there is no pending Recv operation, this method will have no effect.

6.6.4.13 OSCL_IMPORT_REF void OsclUDPSocket::CancelRecvFrom () [inherited]

Cancel RecvFrom

This method will cancel any pending RecvFrom operation on the current socket, causing the RecvFrom to complete with error EPVSocketCancel. If there is no pending RecvFrom operation, this method will have no effect.

6.6.4.14 OSCL_IMPORT_REF void OsclTCPSocket::CancelSend () [inherited]

Cancel Send

This method will cancel any pending Send operation on the current socket, causing the Send to complete with error EPVSocketCancel. If there is no pending Send operation, this method will have no effect.

6.6.4.15 OSCL_IMPORT_REF void OsclUDPSocket::CancelSendTo () [inherited]

Cancel SendTo

This method will cancel any pending SendTo operation on the current socket, causing the SendTo to complete with error EPVSocketCancel. If there is no pending SendTo operation, this method will have no effect.

6.6.4.16 OSCL_IMPORT_REF void OsclTCPSocket::CancelShutdown () [inherited]

Cancel Shutdown

This method will cancel any pending Shutdown operation on the current socket, causing the Shutdown to complete with error EPVSocketCancel. If there is no pending Shutdown operation, this method will have no effect.

6.6.4.17 OSCL_IMPORT_REF int32 OsclTCPSocket::Close () [inherited]

Close a TCP socket. This is a synchronous method.

Once it is closed a socket cannot be re-opened. Sockets are automatically closed when they are deleted. This method may be used to see any error code returned from the platform's socket close call.

Returns

Returns OsclErrNone for success, or a platform-specific error code.

6.6.4.18 OSCL_IMPORT_REF int32 OsclUDPSocket::Close () [inherited]

Close a UDP socket. This is a synchronous method.

Once it is closed a socket cannot be re-opened. Sockets are automatically closed when they are deleted. This method may be used to see any error code returned from the platform's socket close call.

Returns

Returns OsclErrNone for success, or a platform-specific error code.

6.6.4.19 OSCL_IMPORT_REF void OsclSocketServ::Close (bool *aCleanup* = true) [inherited]

Close socket server. This is a synchronous method.

Parameters

aCleanup,: cleanup the socket system? the socket cleanup should only be done when all parts of the application are done using sockets.

6.6.4.20 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Connect (OsclNetworkAddress & *aAddress*, int32 *aTimeoutMsec* = -1) [inherited]

Connect to an address. This is an asynchronous method.

Parameters

aAddress,: a network address.

aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

6.6.4.21 OSCL_IMPORT_REF int32 OsclSocketServ::Connect (uint32 *aMessageSlots* = 8, bool *aShareSession* = **false**) [inherited]

Connect to socket server. This is a synchronous method.

Parameters

Number of message slots.

Returns

Returns OsclErrNone for success, or a platform-specific code.

6.6.4.22 OSCL_IMPORT_REF OsclTCPSocket* OsclTCPSocket::GetAcceptedSocketL (uint32 *aId*) [inherited]

Retrieve the accept socket after a successful Accept operation. This is a synchronous method.

Parameters

aId,: Socket ID. The caller must assign an ID to each socket. The ID is used to identify the socket in observer callbacks.

Returns

Returns pointer to socket, or NULL if error. Note: The caller is responsible for deleting any accepted socket that it retrieves.

6.6.4.23 OSCL_IMPORT_REF TPVDNSEvent OsclDNS::GetHostByName (char * *name*, OsclNetworkAddress & *addr*, int32 *aTimeoutMsec* = -1, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * *aAddressList* = NULL) [inherited]

GetHostByName. This is an asynchronous method.

Parameters

name,: Null-terminated string containing the host name.

addr,: The output address corresponding to the host. The ipAddr field will contain the network address of the host in dotted decimal notation.

aTimeoutMsec,: A timeout for the request in milliseconds, or (-1) to indicate infinite wait.

aAddressList : A list of addresses for the host.

Returns

: EPVDNSPending for success, EPVDNSFailure for failure.

6.6.4.24 OSCL_IMPORT_REF int32 OsclTCPSocket::GetPeerName (OsclNetworkAddress & *aPeerName*) [inherited]

Retrieves the peer address of the socket

Parameters

aPeerName,: This will store the peer address when API returns successfully.

Returns

Returns OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

6.6.4.25 OSCL_IMPORT_REF int32 OsclUDPSocket::GetPeerName (OsclNetworkAddress & *aPeerName*) [inherited]

Retrieves the peer address of the socket

Parameters

aPeerName,: This will store the peer address when API returns successfully.

Returns

Returns OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

6.6.4.26 OSCL_IMPORT_REF uint8* OsclTCPSocket::GetRecvData (int32 * *aLength*) [inherited]

Retrieve the received data after a successful Recv operation. This is a synchronous method.

Parameters

aLength,: (output) number of bytes of data received.

Returns

Returns pointer to received data, or NULL if none.

**6.6.4.27 OSCL_IMPORT_REF uint8* OsclUDPSocket::GetRecvData (int32 * *aLength*)
[inherited]**

Retrieve the received data after a successful RecvFrom operation. This is a synchronous method.

Parameters

aLength,: (output) number of bytes of data received.

Returns

Returns pointer to received data, or NULL if none.

**6.6.4.28 OSCL_IMPORT_REF uint8* OsclTCPSocket::GetSendData (int32 * *aLength*)
[inherited]**

Retrieve the sent data after a successful Send operation. This is a synchronous method.

Parameters

aLength,: (output) number of bytes of data sent.

Returns

Returns pointer to sent data, or NULL if none.

**6.6.4.29 OSCL_IMPORT_REF uint8* OsclUDPSocket::GetSendData (int32 * *aLength*)
[inherited]**

Retrieve the sent data after a successful SendTo operation. This is a synchronous method.

Parameters

aLength,: (output) number of bytes of data sent.

Returns

Returns pointer to sent data, or NULL if none.

**6.6.4.30 OSCL_IMPORT_REF int32 OsclUDPSocket::Join (OsclNetworkAddress & *aAddress*)
[inherited]**

Bind a UDP socket to an address and Join the multicast group. This is a synchronous method.

Parameters

aAddress,: Bind address.

Returns

Returns OsclErrNone for success, or a platform-specific error code. May throw an OsclErrNotSupported Exception

6.6.4.31 OSCL_IMPORT_REF int32 OsclUDPSocket::JoinMulticastGroup (OsclIpMReq & aMReq) [inherited]

Join the multicast group.

Parameters

aMReq,: Multicast group information.

Returns

Returns: OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_SUPPORTED, if underlying OS doesn't support joining multicast group PVSOCK_ERR_BAD_PARAM, if config io file is not configured in accordance with underlying OS PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

6.6.4.32 OSCL_IMPORT_REF int32 OsclTCPSocket::Listen (int32 aQueueSize) [inherited]

Listen. This is a synchronous method.

Parameters

aQueueSize,: Queue size.

Returns

Returns OsclErrNone for success, or a platform-specific error code.

6.6.4.33 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::ListenAsync (int32 aQueueSize, int32 aTimeoutMsec = (-1)) [inherited]

ListenAsync This is an asynchronous method.

Parameters

aQueueSize,: Queue size.

aTimeoutMsec,: Optional timeout. Use a negative value for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

6.6.4.34 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_chdir (const char *path)

oscl_chdir changes the current directory to the path given

Parameters

character path the full path of the directory to change to.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.35 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_chdir (const oscl_wchar * path)

oscl_chdir changes the current directory to the path given

Parameters

wide character path the full path of the directory to change to.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.36 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_getcwd (char * path, uint32 size)

oscl_getcwd function can be used to determine the full path name of the current directory.

Parameters

pointer to character buffer to receive the current directory

size size of buffer in characters

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.37 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_getcwd (oscl_wchar * path, uint32 size)

oscl_getcwd function can be used to determine the full path name of the current directory.

Parameters

pointer to wide character buffer to receive the current directory

size size of buffer in wide characters

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.38 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_mkdir (const char * path)

oscl_mkdir function creates a directory in the path given

Parameters

character path the full path of the directory to create. if parts of the path do not exist the function will fail

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.39 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_mkdir (const oscl_wchar *path)

oscl_mkdir function creates a directory in the path given

Parameters

wide character path the full path of the directory to create. if parts of the path do not exist the function will fail

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.40 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rename (const char *oldpath, const char *newpath)

oscl_rename removes an empty directory in the path given

Parameters

character path the full path of the directory to remove.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.41 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rename (const oscl_wchar *oldpath, const oscl_wchar *newpath)

oscl_rename function renames a file or directory

Parameters

wide character path the full path of the file or directory to rename.

wide character path the full path the new name for the directory

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.42 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rmdir (const char *path)

oscl_rmdir removes an empty directory in the path given

Parameters

character path the full path of the directory to remove.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.43 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rmdir (const oscl_wchar * path)

oscl_rmdir function removes an empty directory in the path given

Parameters

wide character path the full path of the directory to remove.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.44 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stat (const char * path, OSCL_STAT_BUF * statbuf)

oscl_stat function can be used to determine the attributes of a file in addition to whether the file exists or not

Parameters

character path the full path of the file to stat.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.45 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stat (const oscl_wchar * path, OSCL_STAT_BUF * statbuf)

oscl_stat function can be used to determine the attributes of a file in addition to whether the file exists or not

Parameters

wide character path the full path of the file to stat.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.46 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stats (OSCL_FSSTAT * stats, const oscl_wchar * path)

Oscl_StatFS function populates a general structure describing free space available on a filesystem

Parameters

stats pointer to structure to hold information

path located in desired filesystem (utf8) Note: If the OS does not support a particular field in the structure, it is set to -1.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.47 OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_statfs (OSCL_FSSTAT * *stats*, const char * *path*)

Oscl_StatFS function populates a general structure describing free space available on a filesystem

Parameters

stats pointer to structure to hold information

path located in desired filesystem (utf8) Note: If the OS does not support a particular field in the structure, it is set to -1.

Returns

OSCL_FILEMGMT_ERR_TYPE, see enumeration for this type.

6.6.4.48 static OSCL_IMPORT_REF void OsclFileManager::OsclExtractFilenameFromFullPath (const oscl_wchar * *aPath*, oscl_wchar *& *aFileName*) [static, inherited]

6.6.4.49 static OSCL_IMPORT_REF void OsclFileManager::OsclExtractFilenameFromFullPath (const char * *aPath*, char *& *aFileName*) [static, inherited]

OsclExtractFilenameFromFullPath utility function provide the FileName From Path of a file.

Parameters

← *character* path; the full path of the file or directory

→ *character* File Name .It is assigned a pointer to file name in path itself.

Returns

void for all condition

6.6.4.50 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileAttributes (const char * *aFileName*, uint32 & *aFileAttributes*) [static, inherited]

OsclGetFileAttributes utility function provides the various attributes of file (or directory) like if it is hidden, read only etc. The uint32 value is to be interpreted as per the enum OSCL_FILE_ATTRIBUTE_TYPE defined in [oscl_file_manager.h](#)

Parameters

← *character* path; the full path of the file or directory

→ *file* attributes.

Returns

true if successful, otherwise false.

6.6.4.51 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileAttributes (const oscl_wchar * aFileName, uint32 & aFileAttributes) [static, inherited]

OsclGetFileAttributes utility function provides the various attributes of file (or directory) like if it is hidden, read only etc. The uint32 value is to be interpreted as per the enum OSCL_FILE_ATTRIBUTE_TYPE defined in [oscl_file_manager.h](#)

Parameters

- ← *wide* character path; the full path of the file or directory
- *file* attributes.

Returns

true if successful, otherwise false.

6.6.4.52 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileCreationTime (const char * aFileName, uint64 & aFileCreationTime) [static, inherited]

OsclGetFileCreationTime utility function provides the file (or directory) creation time

Note

On symbian platform, this api returns last modified time.

Parameters

- ← *character* path; the full path of the file or directory
- *creation* time in microseconds.

Returns

true if successful, otherwise false.

6.6.4.53 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileCreationTime (const oscl_wchar * aFileName, uint64 & aFileCreationTime) [static, inherited]

OsclGetFileCreationTime utility function provides the file (or directory) creation time

Note

On symbian platform, this api returns last modified time.

Parameters

- ← *wide* character path; the full path of the file or directory
- *creation* time in microseconds

Returns

true if successful, otherwise false.

6.6.4.54 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastAccessTime (const char **aFileName*, uint64 & *aFileLastAccessTime*) [static, inherited]

OsclGetFileLastAccessTime utility function provides the file (or directory) last access time, which might be different from last modified time.

Note

On symbian platform, this api returns last modified time.

Parameters

- ← *character* path; the full path of the file or directory
- *Last* access time in microseconds.

Returns

true if successful, otherwise false.

6.6.4.55 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastAccessTime (const oscl_wchar **aFileName*, uint64 & *aFileLastAccessTime*) [static, inherited]

OsclGetFileLastAccessTime utility function provides the file (or directory) last access time, which might be different from last modified time.

Note

On symbian platform, this api returns last modified time.

Parameters

- ← *wide* character path; the full path of the file or directory
- *Last* access time in microseconds

Returns

true if successful, otherwise false.

6.6.4.56 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastWriteTime (const char **aFileName*, uint64 & *aFileLastWriteTime*) [static, inherited]

OsclGetFileLastWriteTime utility function provides the file (or directory) last modified time.

Parameters

- ← *character* path; the full path of the file or directory
- *last* modified time in microseconds

Returns

true if successful, otherwise false.

6.6.4.57 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileLastWriteTime (const oscl_wchar * *aFileName*, uint64 & *aFileLastWriteTime*) [static, inherited]

OsclGetFileLastWriteTime utility function provides the file (or directory) last modified time.

Parameters

- ← *wide* character path; the full path of the file or directory
- *last* modified time in microseconds

Returns

true if successful, otherwise false.

6.6.4.58 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileSize (const char * *aFileName*, uint64 & *aFileSize*) [static, inherited]

OsclGetFileSize utility function provides the file size. For directory, this value is undefined.

Parameters

- ← *character* path; the full path of the file or directory
- *file* size in bytes.

Returns

true if successful, otherwise false.

6.6.4.59 static OSCL_IMPORT_REF bool OsclFileManager::OsclGetFileSize (const oscl_wchar * *aFileName*, uint64 & *aFileSize*) [static, inherited]

OsclGetFileSize utility function provides the file size. For directory, this value is undefined. creation time

Parameters

- ← *wide* character path; the full path of the file or directory
- *file* size in bytes

Returns

true if successful, otherwise false.

6.6.4.60 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Recv (uint8 * *aPtr*, uint32 *aMaxLen*, int32 *aTimeoutMsec* = -1) [inherited]

Receive Data. This is an asynchronous method.

Parameters

- aPtr*,: Buffer for received data.
- aMaxLen*,: Length of buffer.

aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

**6.6.4.61 OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::RecvFrom (uint8 * *aPtr*,
 uint32 *aMaxLen*, OsclNetworkAddress & *aAddress*, int32 *aTimeoutMsec* = -1, uint32
aMultiRecvLimit = 0, Oscl_Vector< uint32, OsclMemAllocator > * *aPacketLen* = NULL,
 Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * *aPacketSource* = NULL)
 [inherited]**

Receive Data. This is an asynchronous method.

Parameters

aPtr,: Buffer to receive incoming data

aMaxLen,: Length of buffer.

aAddress,: (output) Source address.

aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

aMultiRecvLimit (optional input): Configures multiple packet receive mode. As long as there are packets queued at the socket and at least *aMultiRecvLimit* bytes are available in the buffer, recvfrom operations will continue. A value of zero disabled multiple packet mode. The individual packet lengths can be retrieved in the *aPacketLen* parameter; and the individual packet source addresses can be retrieved in the *aPacketSource* parameter.

aPacketLen,: (optional output) a vector of packet lengths, in case multiple packets were received.

aPacketSource,: (optional output) a vector of source addresses, in case multiple packets were received.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

**6.6.4.62 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Send (const uint8 * *aPtr*,
 uint32 *aLen*, int32 *aTimeoutMsec* = -1) [inherited]**

Send Data. This is an asynchronous method.

Parameters

aPtr,: Data to send.

aLen,: Length of data to send.

aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

**6.6.4.63 OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::SendTo (const uint8 *
aPtr, uint32 aLen, OsclNetworkAddress & aAddress, int32 aTimeoutMsec = -1)
[inherited]**

Send Data. This is an asynchronous method.

Parameters

aPtr,: Data to send.
aLen,: Length of data to send.
aAddress,: Destination address.
aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

**6.6.4.64 OSCL_IMPORT_REF int32 OsclUDPSocket::SetMulticastTTL (int32 aTTL)
[inherited]**

Controls the number of intermediate systems through which a multicast datagram can be forwarded.

Parameters

aTTL:Specifies the time-to-live value for multicast datagrams sent through this socket.

Returns

Returns: OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_SUPPORTED, if underlying OS doesn't support joining multicast group PVSOCK_ERR_BAD_PARAM, if config io file is not configured in accordance with underlying OS PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

**6.6.4.65 OSCL_IMPORT_REF int32 OsclTCPSocket::SetOptionToReuseAddress ()
[inherited]**

Allows the server to bind to an address which is in a TIME_WAIT state.

Returns

Returns: OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_SUPPORTED, if underlying OS doesn't support joining multicast group PVSOCK_ERR_BAD_PARAM, if config io file is not configured in accordance with underlying OS PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

**6.6.4.66 OSCL_IMPORT_REF int32 OsclUDPSocket::SetOptionToReuseAddress ()
[inherited]**

Allows the server to bind to an address which is in a TIME_WAIT state.

Returns

Returns: OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_SUPPORTED, if underlying OS doesn't support joining multicast group PVSOCK_ERR_BAD_PARAM, if config io file is not configured in accordance with underlying OS PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

**6.6.4.67 OSCL_IMPORT_REF int32 OsclUDPSocket::SetRecvBufferSize (uint32 *size*)
[inherited]**

Set the buffer size of the socket This is a synchronous method.

Parameters

size,: buffer size

Returns

Returns OsclErrNone for success, or a platform-specific error code. May throw an OsclErrNotSupported Exception.

**6.6.4.68 OSCL_IMPORT_REF int32 OsclTCPSocket::SetTOS (const OsclSocketTOS & *aTOS*)
[inherited]**

Sets the Type of Service field of each outgoing IP datagram.

Parameters

aTOS,: Specifies the type of service requested.

Returns

Returns: OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_SUPPORTED, if underlying OS doesn't support joining multicast group PVSOCK_ERR_BAD_PARAM, if config io file is not configured in accordance with underlying OS PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

**6.6.4.69 OSCL_IMPORT_REF int32 OsclUDPSocket::SetTOS (const OsclSocketTOS & *aTOS*)
[inherited]**

Sets the Type of Service field of each outgoing IP datagram.

Parameters

aTOS,: Specifies the type of service requested.

Returns

Returns: OsclErrNone for success, or a platform-specific error code. or PVSOCK_ERR_NOT_SUPPORTED, if underlying OS doesn't support joining multicast group PVSOCK_ERR_BAD_PARAM, if config io file is not configured in accordance with underlying OS PVSOCK_ERR_NOT_IMPLEMENTED, if this API is not implemented in OSCL for the underlying OS

**6.6.4.70 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::Shutdown
[TPVSocketShutdown *aHow*, int32 *aTimeoutMsec* = -1] [inherited]**

Shutdown a socket. This is an asynchronous method.

Parameters

aHow,: type of shutdown

aTimeoutMsec,: Timeout in milliseconds, or (-1) for infinite wait.

Returns

Will return EPVSocketPending if successful. When the operation is complete, a callback to the observer will occur with the completion status. If the operation cannot be initiated, the call will return EPVSocketFailure and there will be no callback.

**6.6.4.71 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::ThreadLogoff ()
[inherited]**

Thread logoff routine. This will prepare for transfer and use of the socket in another thread. All socket requests must be complete prior to calling this routine. If any requests are still active, it will return EPVSocketFailure;

**6.6.4.72 OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::ThreadLogoff ()
[inherited]**

Thread logoff routine. This will prepare for transfer and use of the socket in another thread. All socket requests must be complete prior to calling this routine. If any requests are still active, it will return EPVSocketFailure;

**6.6.4.73 OSCL_IMPORT_REF TPVSocketEvent OsclTCPSocket::ThreadLogon (OsclSocketServ
& *aServ*, OsclSocketObserver * *aObserver*) [inherited]**

Thread logon routine. This will complete the transfer of a socket from another thread for use in the current thread. The ThreadLogoff API must be called in the original thread prior to calling ThreadLogon.

**6.6.4.74 OSCL_IMPORT_REF TPVSocketEvent OsclUDPSocket::ThreadLogon (OsclSocketServ
& *aServ*, OsclSocketObserver * *aObserver*) [inherited]**

Thread logon routine. This will complete the transfer of a socket from another thread for use in the current thread. The ThreadLogoff API must be called in the original thread prior to calling ThreadLogon.

6.6.4.75 OSCL_IMPORT_REF OsclDNS::~OsclDNS () [inherited]

Destructor.

Note: the application must de-allocate the DNS object using the same allocator that was passed in the NewL object creation call.

6.6.4.76 virtual OsclDNSObserver::~OsclDNSObserver () [inline, virtual, inherited]

6.6.4.77 OSCL_IMPORT_REF OsclSocketServ::~OsclSocketServ () [inherited]

Destructor. The server object must be deleted using the same allocator used in the NewL call.

6.6.4.78 OSCL_IMPORT_REF OsclTCPSocket::~OsclTCPSocket () [inherited]

Destructor. The object must be deleted using the same allocator used in the NewL call.

6.6.4.79 OSCL_IMPORT_REF OsclUDPSocket::~OsclUDPSocket () [inherited]

Destructor. The object must be deleted using the same allocator used in the NewL call.

6.6.5 Friends

6.6.5.1 friend class OsclDNS [friend, inherited]

6.6.5.2 friend class OsclDNSRequestAO [friend, inherited]

6.6.5.3 friend class OsclTCPSocket [friend, inherited]

6.6.5.4 friend class OsclUDPSocket [friend, inherited]

6.7 OSCL Proc

Data Structures

- class [OsclAOStatus](#)
- class [OsclDoubleLink](#)
- class [OsclPriorityLink](#)
- class [OsclDoubleListBase](#)
- class [OsclDoubleList< T >](#)
- class [OsclPriorityList< T >](#)
- class [OsclDoubleRunner< T >](#)
- class [OsclScheduler](#)
- class [OsclSchedulerObserver](#)
- class [OsclExecSchedulerCommonBase](#)
- class [OsclExecScheduler](#)
- class [PVSchedulerStopper](#)
- class [OsclActiveObject](#)
- class [OsclTimerObject](#)
- class [PVActiveBase](#)
- class [OsclReadyAlloc](#)
- class [OsclReadyCompare](#)
- class [OsclTimerCompare](#)
- class [OsclReadyQ](#)
- class [OsclTimerQ](#)
- class [TReadyQueLink](#)
- class [PVThreadContext](#)
- class [OsclExecSchedulerBase](#)

Files

- file [oscl_aostatus.h](#)

Some basic types used with active objects.
- file [oscl_double_list.h](#)

Internal use types for scheduler.
- file [oscl_scheduler_ao.h](#)

Oscl Scheduler user execution object classes.
- file [oscl_scheduler_aobase.h](#)

Oscl Scheduler internal active object classes.
- file [oscl_scheduler_readyq.h](#)

ready q types for oscl scheduler
- file [oscl_scheduler_threadcontext.h](#)

Thread context functions needed by oscl scheduler.
- file [oscl_scheduler_tuneables.h](#)

Tunable settings for Oscl Scheduler.

- file [oscl_scheduler_types.h](#)

Scheduler common types include file.

Defines

- `#define QUE_ITER_BEGIN(_type, _qname)`
- `#define QUE_ITER_END(_qname)`
- `#define PVSCHEDNAMELEN 30`
- `#define OSCL_ZEROIZE(ptr, size) oscl_memset(ptr, 0, size)`
- `#define PVEXECNAMELEN 30`
- `#define PV_SCHED_ENABLE_LOOP_STATS 0`
- `#define PV_SCHED_ENABLE_PERF_LOGGING 1`
- `#define PV_SCHED_ENABLE_THREAD_CONTEXT_CHECKS 1`
- `#define PV_SCHED_LOG_Q 0`
- `#define PV_SCHED_CHECK_Q 0`
- `#define PV_SCHED_FAIR_SCHEDULING 1`
- `#define OSCL_PERF_SUMMARY_LOGGING 0`

Typedefs

- `typedef PVActiveBase * TOsclReady`

Enumerations

- `enum TPVThreadContext { EPVThreadContext_InThread, EPVThreadContext_OsclThread, EPVThreadContext_NonOsclThread, EPVThreadContext_Undetermined }`

Functions

- `template<class T, class S> T * OsclPtrAdd (T *aPtr, S aVal)`
- `template<class T, class S> T * OsclPtrSub (T *aPtr, S aVal)`

Variables

- `const int32 OSCL_REQUEST_ERR_NONE = 0`
- `const int32 OSCL_REQUEST_PENDING = (-0x7fffffff)`
- `const int32 OSCL_REQUEST_ERR_CANCEL = (-1)`
- `const int32 OSCL_REQUEST_ERR_GENERAL = (-2)`

6.7.1 Define Documentation

6.7.1.1 #define OSCL_PERF_SUMMARY_LOGGING 0

6.7.1.2 #define OSCL_ZEROIZE(ptr, size) oscl_memset(ptr, 0, size)

This file defines the **PVActiveBase** class, which is a common base for All PV ExecObjs on all platforms.

6.7.1.3 #define PV_SCHED_CHECK_Q 0

6.7.1.4 #define PV_SCHED_ENABLE_LOOP_STATS 0

6.7.1.5 #define PV_SCHED_ENABLE_PERF_LOGGING 1

6.7.1.6 #define PV_SCHED_ENABLE_THREAD_CONTEXT_CHECKS 1

6.7.1.7 #define PV_SCHED_FAIR_SCHEDULING 1

6.7.1.8 #define PV_SCHED_LOG_Q 0

6.7.1.9 #define PVEEXECNAMELEN 30

6.7.1.10 #define PVSCHEDNAMELEN 30

PV Scheduler class

6.7.1.11 #define QUE_ITER_BEGIN(_type, _qname)

Value:

```
if (!_qname.IsEmpty()) \
{ \
    OsclDoubleRunner <_type> iter(_qname); \
    _type *item; \
    for (iter.SetToHead(); ; iter++) \
    { \
        item=iter; \
    }
```

6.7.1.12 #define QUE_ITER_END(_qname)

Value:

```
if (_qname.IsTail(item)) \
    break; \
}
```

6.7.2 Typedef Documentation

6.7.2.1 `typedef PVActiveBase* TOsclReady`

6.7.3 Enumeration Type Documentation

6.7.3.1 `enum TPVThreadContext`

Thread context type

Enumerator:

EPVThreadContext_InThread
EPVThreadContext_OsclThread
EPVThreadContext_NonOsclThread
EPVThreadContext_Undetermined

6.7.4 Function Documentation

6.7.4.1 `template<class T , class S > T* OsclPtrAdd (T * aPtr, S aVal) [inline]`

Referenced by `OsclDoubleRunner< T >::Set()`.

6.7.4.2 `template<class T , class S > T* OsclPtrSub (T * aPtr, S aVal) [inline]`

Referenced by `OsclDoubleRunner< T >::operator T *()`, and `OsclDoubleRunner< T >::operator++()`.

6.7.5 Variable Documentation

6.7.5.1 `const int32 OSCL_REQUEST_ERR_CANCEL = (-1)`

6.7.5.2 `const int32 OSCL_REQUEST_ERR_GENERAL = (-2)`

6.7.5.3 `const int32 OSCL_REQUEST_ERR_NONE = 0`

Referenced by `CallbackTimer< Alloc >::Run()`.

6.7.5.4 `const int32 OSCL_REQUEST_PENDING = (-0x7fffffff)`

6.8 OSCL Init

Data Structures

- class [OsclSelect](#)
- class [OsclInit](#)

Files

- file [oscl_init.h](#)
Global oscl initialization.

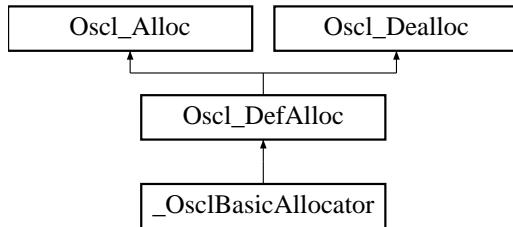
Chapter 7

Data Structure Documentation

7.1 _OsclBasicAllocator Class Reference

```
#include <oscl_base_alloc.h>
```

Inheritance diagram for _OsclBasicAllocator:



Public Member Functions

- `OsclAny * allocate (const uint32 size)`
- `void deallocate (OsclAny *p)`
- `virtual ~_OsclBasicAllocator ()`

7.1.1 Detailed Description

A basic allocator that does not rely on other modules. There is no memory auditing or exception generation.

Note: this allocator is for internal use by Oscl code only. Higher level code should use `OsclMemAllocator` defined in "oscl_mem.h".

7.1.2 Constructor & Destructor Documentation

7.1.2.1 `virtual _OsclBasicAllocator::~_OsclBasicAllocator () [inline, virtual]`

7.1.3 Member Function Documentation

7.1.3.1 `OsclAny* _OsclBasicAllocator::allocate (const uint32 size) [inline, virtual]`

Implements [Oscl_DefAlloc](#).

7.1.3.2 `void _OsclBasicAllocator::deallocate (OsclAny *p) [inline, virtual]`

Implements [Oscl_DefAlloc](#).

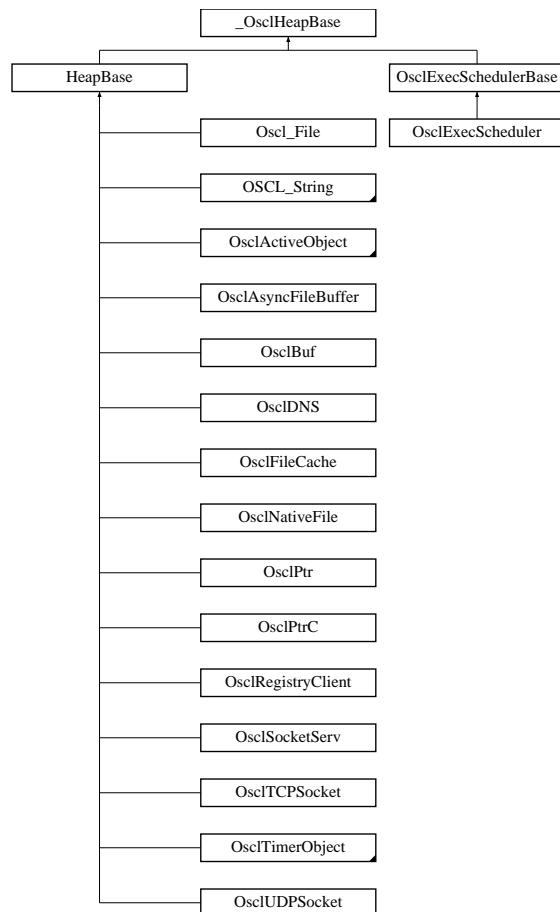
The documentation for this class was generated from the following file:

- [oscl_base_alloc.h](#)

7.2 _OsclHeapBase Class Reference

```
#include <oscl_heapbase.h>
```

Inheritance diagram for _OsclHeapBase:



Public Member Functions

- virtual ~_OsclHeapBase ()

Protected Member Functions

- _OsclHeapBase ()
- _OsclHeapBase (const _OsclHeapBase &)

Friends

- class PVCleanupStack

7.2.1 Detailed Description

[_OsclHeapBase](#) is used as the base for cleanup stack items with virtual destructor.

7.2.2 Constructor & Destructor Documentation

7.2.2.1 `virtual _OsclHeapBase::~_OsclHeapBase () [inline, virtual]`

7.2.2.2 `_OsclHeapBase::_OsclHeapBase () [inline, protected]`

7.2.2.3 `_OsclHeapBase::_OsclHeapBase (const _OsclHeapBase &) [inline, protected]`

7.2.3 Friends And Related Function Documentation

7.2.3.1 `friend class PVCleanupStack [friend]`

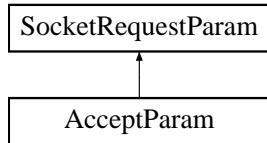
The documentation for this class was generated from the following file:

- [oscl_heapbase.h](#)

7.3 AcceptParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for AcceptParam:



Public Member Functions

- [AcceptParam \(OsclSocketI &aBlankSocket\)](#)

Data Fields

- [OsclSocketI * iBlankSocket](#)

7.3.1 Constructor & Destructor Documentation

7.3.1.1 [AcceptParam::AcceptParam \(OsclSocketI & aBlankSocket\) \[inline\]](#)

7.3.2 Field Documentation

7.3.2.1 [OsclSocketI* AcceptParam::iBlankSocket](#)

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

- [oscl_socket_request.h](#)

7.4 allocator Class Reference

```
#include <oscl_mem_mempool.h>
```

7.4.1 Detailed Description

A memory allocator class which allocates and deallocates from a fixed size memory pool; The memory pool is a multiple of fixed chunk size and does not grow. All allocation size must be the same as this chunk size.

A memory allocator class which allocates and deallocates from a fixed size memory pool; The memory pool is one block of memory and allocations are not fixed in size. The memory pool also has the capability of growing by allocating more block one at a time. This memory pool also provides the capability of returning the tail end of memory previously allocated from the memory pool

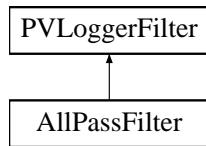
The documentation for this class was generated from the following file:

- [oscl_mem_mempool.h](#)

7.5 AllPassFilter Class Reference

```
#include <pvlogger_accessories.h>
```

Inheritance diagram for AllPassFilter:



Public Types

- `typedef PVLoggerFilter::message_id_type message_id_type`
- `typedef PVLoggerFilter::log_level_type log_level_type`
- `typedef PVLoggerFilter::filter_status_type filter_status_type`

Public Member Functions

- `AllPassFilter ()`
- `virtual ~AllPassFilter ()`
- `filter_status_type FilterString (char *tag, message_id_type msgID, log_level_type level)`
- `filter_status_type FilterOpaqueMessage (char *tag, message_id_type msgID, log_level_type level)`

7.5.1 Detailed Description

Example filter that allows all messages to be logged.

7.5.2 Member Typedef Documentation

7.5.2.1 `typedef PVLoggerFilter::filter_status_type AllPassFilter::filter_status_type`

Reimplemented from [PVLoggerFilter](#).

7.5.2.2 `typedef PVLoggerFilter::log_level_type AllPassFilter::log_level_type`

Reimplemented from [PVLoggerFilter](#).

7.5.2.3 `typedef PVLoggerFilter::message_id_type AllPassFilter::message_id_type`

Reimplemented from [PVLoggerFilter](#).

7.5.3 Constructor & Destructor Documentation

7.5.3.1 `AllPassFilter::AllPassFilter () [inline]`

7.5.3.2 `virtual AllPassFilter::~AllPassFilter () [inline, virtual]`

7.5.4 Member Function Documentation

7.5.4.1 `filter_status_type AllPassFilter::FilterOpaqueMessge (char * tag, message_id_type msgID, log_level_type level) [inline, virtual]`

Implements [PVLoggerFilter](#).

References OSCL_UNUSED_ARG, and PVLOGGER_FILTER_ACCEPT.

7.5.4.2 `filter_status_type AllPassFilter::FilterString (char * tag, message_id_type msgID, log_level_type level) [inline, virtual]`

Implements [PVLoggerFilter](#).

References OSCL_UNUSED_ARG, and PVLOGGER_FILTER_ACCEPT.

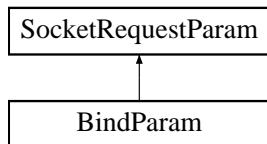
The documentation for this class was generated from the following file:

- [pvlogger_accessories.h](#)

7.6 BindParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for BindParam:



Public Member Functions

- [BindParam \(OsclNetworkAddress &anAddr\)](#)

Data Fields

- [OsclNetworkAddress iAddr](#)

7.6.1 Constructor & Destructor Documentation

7.6.1.1 [BindParam::BindParam \(OsclNetworkAddress & anAddr\) \[inline\]](#)

7.6.2 Field Documentation

7.6.2.1 [OsclNetworkAddress BindParam::iAddr](#)

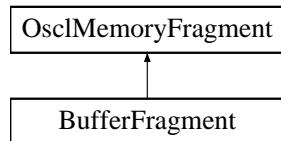
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.7 BufferFragment Class Reference

```
#include <oscl_media_data.h>
```

Inheritance diagram for BufferFragment:



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

- [oscl_media_data.h](#)

7.8 BufferMgr Class Reference

```
#include <oscl_media_data.h>
```

Public Member Functions

- virtual void [BufferReleased](#) (void *ptr, [BufferState](#) *state=NULL)=0
- virtual [~BufferMgr](#) ()

7.8.1 Constructor & Destructor Documentation

7.8.1.1 [virtual BufferMgr::~BufferMgr \(\) \[inline, virtual\]](#)

7.8.2 Member Function Documentation

7.8.2.1 [virtual void BufferMgr::BufferReleased \(void *ptr, BufferState * state = NULL\) \[pure virtual\]](#)

Referenced by [BufferState::decrement_refcnt\(\)](#).

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

- [oscl_media_data.h](#)

7.9 BufferState Class Reference

```
#include <oscl_media_data.h>
```

Public Member Functions

- `BufferState (BufferFreeFuncPtr the_free_function, void *bufptr=0)`
- `BufferState (BufferMgr *the_buf_mgr=0, void *bufptr=0)`
- `void increment_refcnt ()`
- `void decrement_refcnt ()`
- `void bind (void *in_ptr, BufferFreeFuncPtr in_free_function)`
- `void bind (void *in_ptr, BufferMgr *in_buf_mgr)`
- `void * get_ptr ()`
- `int32 get_refcount ()`
- `BufferFreeFuncPtr get_free_function ()`
- `BufferMgr * get_buf_mgr ()`
- `void reset ()`

7.9.1 Constructor & Destructor Documentation

7.9.1.1 `BufferState::BufferState (BufferFreeFuncPtr the_free_function, void * bufptr = 0) [inline]`

7.9.1.2 `BufferState::BufferState (BufferMgr * the_buf_mgr = 0, void * bufptr = 0) [inline]`

7.9.2 Member Function Documentation

7.9.2.1 `void BufferState::bind (void * in_ptr, BufferMgr * in_buf_mgr) [inline]`

7.9.2.2 `void BufferState::bind (void * in_ptr, BufferFreeFuncPtr in_free_function) [inline]`

7.9.2.3 `void BufferState::decrement_refcnt () [inline]`

References `BufferMgr::BufferReleased()`.

Referenced by `MediaData<ChainClass, max_frags, local_bufsize>::Clear()`, and `BufFragGroup<ChainClass, max_frags>::Clear()`.

7.9.2.4 `BufferMgr* BufferState::get_buf_mgr () [inline]`

7.9.2.5 `BufferFreeFuncPtr BufferState::get_free_function () [inline]`

7.9.2.6 `void* BufferState::get_ptr () [inline]`

7.9.2.7 `int32 BufferState::get_refcount () [inline]`

7.9.2.8 `void BufferState::increment_refcnt () [inline]`

Referenced by `BufFragGroup<ChainClass, max_frags>::AddFragment()`.

7.9.2.9 void BufferState::reset () [inline]

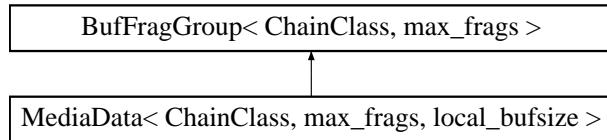
The documentation for this class was generated from the following file:

- [oscl_media_data.h](#)

7.10 BufFragGroup< ChainClass, max_frags > Class Template Reference

```
#include <oscl_media_data.h>
```

Inheritance diagram for BufFragGroup< ChainClass, max_frags >:



Public Member Functions

- [BufFragGroup \(\)](#)
- virtual [~BufFragGroup \(\)](#)
- int32 [GetMaxFrags \(\) const](#)
- int32 [GetNumFrags \(\) const](#)
- uint32 [GetLength \(\) const](#)
- [BufferFragment * GetFragment \(const int32 idx\)](#)
- [BufferState * GetBufferState \(const int32 idx\)](#)
- void [AppendNext \(ChainClass *next_ptr\)](#)
- ChainClass * [GetNext \(\) const](#)

Protected Member Functions

- virtual void [Clear \(\)](#)
- [BufFragStatusClass::status_t AddFragment \(const BufferFragment &frag, BufferState *in_buffer_state, int32 location_offset=max_frags\)](#)

Protected Attributes

- [BufferFragment fragments \[max_frags\]](#)
- [BufferState * buffer_states \[max_frags\]](#)
- [ChainClass * next](#)
- uint32 [num.fragments](#)
- uint32 [length](#)

```
template<class ChainClass, uint32 max_frags> class BufFragGroup< ChainClass, max_frags >
```

7.10.1 Constructor & Destructor Documentation

```
7.10.1.1 template<class ChainClass , uint32 max_frags> BufFragGroup< ChainClass, max_frags >::BufFragGroup () [inline]
```

References BufFragGroup< ChainClass, max_frags >::buffer_states, BufFragGroup< ChainClass, max_frags >::fragments, and oscl_memset().

7.10.1.2 template<class ChainClass , uint32 max_frags> virtual BufFragGroup< ChainClass, max_frags >::~BufFragGroup () [inline, virtual]

7.10.2 Member Function Documentation

7.10.2.1 template<class ChainClass , uint32 max_frags> BufFragStatusClass::status_t BufFragGroup< ChainClass, max_frags >::AddFragment (const BufferFragment & *frag*, BufferState * *in_buffer_state*, int32 *location_offset* = **max_frags) [inline, protected]**

References BufFragStatusClass::BFG_SUCCESS, BufFragGroup< ChainClass, max_frags >::buffer_states, BufFragStatusClass::EMPTY_FRAGMENT, BufFragGroup< ChainClass, max_frags >::fragments, BufferState::increment_refcnt(), OsclMemoryFragment::len, BufFragGroup< ChainClass, max_frags >::length, NULL, BufFragGroup< ChainClass, max_frags >::num_fragments, oscl_memmove(), OsclMemoryFragment::ptr, and BufFragStatusClass::TOO_MANY_FRAGS.

7.10.2.2 template<class ChainClass , uint32 max_frags> void BufFragGroup< ChainClass, max_frags >::AppendNext (ChainClass * *next_ptr*) [inline]

References BufFragGroup< ChainClass, max_frags >::next.

7.10.2.3 template<class ChainClass , uint32 max_frags> virtual void BufFragGroup< ChainClass, max_frags >::Clear () [inline, protected, virtual]

Reimplemented in [MediaData< ChainClass, max_frags, local_bufsize >](#).

References BufFragGroup< ChainClass, max_frags >::buffer_states, BufferState::decrement_refcnt(), BufFragGroup< ChainClass, max_frags >::fragments, BufFragGroup< ChainClass, max_frags >::length, BufFragGroup< ChainClass, max_frags >::num_fragments, and oscl_memset().

7.10.2.4 template<class ChainClass , uint32 max_frags> uint32 BufFragGroup< ChainClass, max_frags >::GetLength () const [inline]

References BufFragGroup< ChainClass, max_frags >::length.

7.10.2.5 template<class ChainClass , uint32 max_frags> int32 BufFragGroup< ChainClass, max_frags >::GetMaxFrags () const [inline]

7.10.2.6 template<class ChainClass , uint32 max_frags> ChainClass* BufFragGroup< ChainClass, max_frags >::GetNext () const [inline]

References BufFragGroup< ChainClass, max_frags >::next.

7.10.2.7 template<class ChainClass , uint32 max_frags> int32 BufFragGroup< ChainClass, max_frags >::GetNumFrags () const [inline]

References BufFragGroup< ChainClass, max_frags >::num_fragments.

7.10.3 Field Documentation

7.10.3.1 template<class ChainClass , uint32 max_frags> BufferState* BufFragGroup<ChainClass, max_frags >::buffer_states[max_frags] [protected]

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), BufFragGroup< ChainClass, max_frags >::BufFragGroup(), MediaData< ChainClass, max_frags, local_bufsize >::Clear(), BufFragGroup< ChainClass, max_frags >::Clear(), and BufFragGroup< ChainClass, max_frags >::GetBufferState().

7.10.3.2 template<class ChainClass , uint32 max_frags> BufferFragment BufFragGroup<ChainClass, max_frags >::fragments[max_frags] [protected]

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), BufFragGroup< ChainClass, max_frags >::BufFragGroup(), MediaData< ChainClass, max_frags, local_bufsize >::Clear(), BufFragGroup< ChainClass, max_frags >::Clear(), BufFragGroup< ChainClass, max_frags >::GetFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetMediaFragment(), and MediaData< ChainClass, max_frags, local_bufsize >::GetMediaSize().

7.10.3.3 template<class ChainClass , uint32 max_frags> uint32 BufFragGroup< ChainClass, max_frags >::length [protected]

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::Clear(), BufFragGroup< ChainClass, max_frags >::Clear(), BufFragGroup< ChainClass, max_frags >::GetLength(), and MediaData< ChainClass, max_frags, local_bufsize >::GetMediaSize().

7.10.3.4 template<class ChainClass , uint32 max_frags> ChainClass* BufFragGroup<ChainClass, max_frags >::next [protected]

Referenced by BufFragGroup< ChainClass, max_frags >::AppendNext(), and BufFragGroup< ChainClass, max_frags >::GetNext().

7.10.3.5 template<class ChainClass , uint32 max_frags> uint32 BufFragGroup< ChainClass, max_frags >::num.fragments [protected]

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::Clear(), BufFragGroup< ChainClass, max_frags >::Clear(), BufFragGroup< ChainClass, max_frags >::GetBufferState(), BufFragGroup< ChainClass, max_frags >::GetFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetMediaFragment(), BufFragGroup< ChainClass, max_frags >::GetNumFrags(), and MediaData< ChainClass, max_frags, local_bufsize >::GetNumMediaFrags().

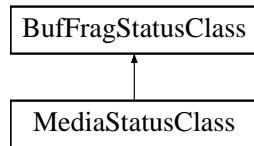
The documentation for this class was generated from the following file:

- [oscl_media_data.h](#)

7.11 BufFragStatusClass Class Reference

```
#include <oscl_media_status.h>
```

Inheritance diagram for BufFragStatusClass:



Public Types

- enum `status_t` {
 BFG_SUCCESS = 0, *TOO_MANY_FRAGS* = 1, *NOT_ENOUGH_SPACE* = 2, *EMPTY_FRAGMENT* = 3,
 NULL_INPUT = 4, *FIXED_FRAG_LOC_FULL* = 5, *INTERNAL_ERROR*, *INVALID_ID* }

7.11.1 Member Enumeration Documentation

7.11.1.1 enum BufFragStatusClass::status_t

Enumerator:

BFG_SUCCESS
TOO_MANY_FRAGS
NOT_ENOUGH_SPACE
EMPTY_FRAGMENT
NULL_INPUT
FIXED_FRAG_LOC_FULL
INTERNAL_ERROR
INVALID_ID

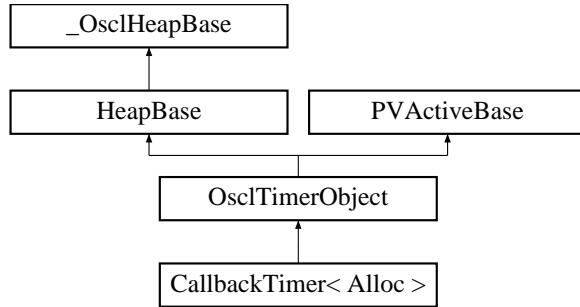
The documentation for this class was generated from the following file:

- `oscl_media_status.h`

7.12 CallbackTimer< Alloc > Class Template Reference

```
#include <oscl_timer.h>
```

Inheritance diagram for CallbackTimer< Alloc >:



Public Member Functions

- [CallbackTimer \(CallbackTimerObserver &aContainer, const char *name, int32 aPriority=OsclActiveObject::EPriorityNominal\)](#)
- [~CallbackTimer \(\)](#)
- void [Run \(\)](#)

```
template<class Alloc> class CallbackTimer< Alloc >
```

7.12.1 Constructor & Destructor Documentation

7.12.1.1 template<class Alloc> CallbackTimer< Alloc >::CallbackTimer (CallbackTimerObserver & aContainer, const char * name, int32 aPriority = OsclActiveObject::EPriorityNominal) [inline]

References OsclTimerObject::AddToScheduler().

7.12.1.2 template<class Alloc> CallbackTimer< Alloc >::~CallbackTimer () [inline]

References OsclTimerObject::RemoveFromScheduler().

7.12.2 Member Function Documentation

7.12.2.1 template<class Alloc> void CallbackTimer< Alloc >::Run () [inline, virtual]

Handles an active object's request completion event.

A derived class must provide an implementation to handle the completed request. If appropriate, it may issue another request.

The function is called by the active scheduler when a request completion event occurs, i.e. after the active scheduler's WaitForAnyRequest() function completes.

Before calling this active object's [Run\(\)](#) function, the active scheduler has:

1. decided that this is the highest priority active object with a completed request
2. marked this active object's request as complete (i.e. the request is no longer outstanding)

[Run\(\)](#) runs under a trap harness in the active scheduler. If it leaves, then the active scheduler calls [ExecError\(\)](#) to handle the leave.

Note that once the active scheduler's Start() function has been called, all user code is run under one of the program's active object's [Run\(\)](#) or [RunError\(\)](#) functions.

Implements [PVActiveBase](#).

References [OSCL_REQUEST_ERR_NONE](#), [OsclTimerObject::Status\(\)](#), and [CallbackTimerObserver::TimerBaseElapsed\(\)](#).

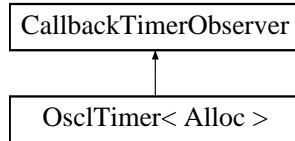
The documentation for this class was generated from the following file:

- [oscl_timer.h](#)

7.13 CallbackTimerObserver Class Reference

```
#include <oscl_timer.h>
```

Inheritance diagram for CallbackTimerObserver:



Public Member Functions

- virtual void [TimerBaseElapsed \(\)=0](#)
- virtual [~CallbackTimerObserver \(\)](#)

7.13.1 Constructor & Destructor Documentation

7.13.1.1 virtual [CallbackTimerObserver::~CallbackTimerObserver \(\) \[inline, virtual\]](#)

7.13.2 Member Function Documentation

7.13.2.1 virtual void [CallbackTimerObserver::TimerBaseElapsed \(\) \[pure virtual\]](#)

Implemented in [OsclTimer< Alloc >](#).

Referenced by [CallbackTimer< Alloc >::Run\(\)](#).

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

- [oscl_timer.h](#)

7.14 CFastRep Class Reference

```
#include <oscl_string_rep.h>
```

Public Member Functions

- [CFastRep \(\)](#)
- OSCL_IMPORT_REF void [set_w](#) (char *cp, uint32 len, uint32 maxlen)
- OSCL_IMPORT_REF void [set_w](#) ([oscl_wchar](#) *cp, uint32 len, uint32 maxlen)
- OSCL_IMPORT_REF void [set_r](#) (const char *cp, uint32 len)
- OSCL_IMPORT_REF void [set_r](#) (const [oscl_wchar](#) *cp, uint32 len)
- OSCL_IMPORT_REF void [append](#) (const char *cp, uint32 len)
- OSCL_IMPORT_REF void [append](#) (const [oscl_wchar](#) *cp, uint32 len)

Data Fields

- uint32 [maxsize](#)
- uint32 [size](#)
- [OsclAny](#) * [buffer](#)
- bool [writable](#)
- bool [overwrite](#)

7.14.1 Detailed Description

For internal use only-- fast string representation

7.14.2 Constructor & Destructor Documentation

7.14.2.1 **CFastRep::CFastRep () [inline]**

7.14.3 Member Function Documentation

7.14.3.1 **OSCL_IMPORT_REF void CFastRep::append (const oscl_wchar * *cp*, uint32 *len*)**

7.14.3.2 **OSCL_IMPORT_REF void CFastRep::append (const char * *cp*, uint32 *len*)**

7.14.3.3 **OSCL_IMPORT_REF void CFastRep::set_r (const oscl_wchar * *cp*, uint32 *len*)**

7.14.3.4 **OSCL_IMPORT_REF void CFastRep::set_r (const char * *cp*, uint32 *len*)**

7.14.3.5 **OSCL_IMPORT_REF void CFastRep::set_w (oscl_wchar * *cp*, uint32 *len*, uint32 *maxlen*)**

7.14.3.6 **OSCL_IMPORT_REF void CFastRep::set_w (char * *cp*, uint32 *len*, uint32 *maxlen*)**

7.14.4 Field Documentation

7.14.4.1 **OsclAny* CFastRep::buffer**

7.14.4.2 **uint32 CFastRep::maxsize**

7.14.4.3 **bool CFastRep::overwrite**

7.14.4.4 **uint32 CFastRep::size**

7.14.4.5 **bool CFastRep::writable**

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

- [oscl_string_rep.h](#)

7.15 CHeapRep Class Reference

```
#include <oscl_string_rep.h>
```

Public Member Functions

- [CHearpRep \(\)](#)
- OSCL_IMPORT_REF bool [set](#) (uint32, const char *, [Oscl_DefAlloc](#) &)
- OSCL_IMPORT_REF bool [set](#) (uint32, const [oscl_wchar](#) *, [Oscl_DefAlloc](#) &)
- OSCL_IMPORT_REF bool [append](#) (uint32, const char *, uint32, const char *, [Oscl_DefAlloc](#) &)
- OSCL_IMPORT_REF bool [append](#) (uint32, const [oscl_wchar](#) *, uint32, const [oscl_wchar](#) *, [Oscl_DefAlloc](#) &)
- OSCL_IMPORT_REF void [add_ref](#) ()
- OSCL_IMPORT_REF void [remove_ref](#) ([Oscl_DefAlloc](#) &)

Static Public Member Functions

- static OSCL_IMPORT_REF void [set_rep](#) ([CHearpRep](#) *&, [Oscl_DefAlloc](#) &, const char *, uint32)
- static OSCL_IMPORT_REF void [set_rep](#) ([CHearpRep](#) *&, [Oscl_DefAlloc](#) &, const [oscl_wchar](#) *, uint32)
- static OSCL_IMPORT_REF void [append_rep](#) ([CHearpRep](#) *&, [Oscl_DefAlloc](#) &, const char *, uint32)
- static OSCL_IMPORT_REF void [append_rep](#) ([CHearpRep](#) *&, [Oscl_DefAlloc](#) &, const [oscl_wchar](#) *, uint32)
- static OSCL_IMPORT_REF void [assign](#) ([CHearpRep](#) *&, [CHearpRep](#) *, [Oscl_DefAlloc](#) &)

Data Fields

- uint32 [refcount](#)
- [OsclAny](#) * [buffer](#)
- uint32 [maxsize](#)
- uint32 [size](#)

7.15.1 Detailed Description

For internal use only-- heap string representation

7.15.2 Constructor & Destructor Documentation

7.15.2.1 **CHeapRep::CHearpRep () [inline]**

7.15.3 Member Function Documentation

7.15.3.1 **OSCL_IMPORT_REF void CHearpRep::add_ref ()**

7.15.3.2 **OSCL_IMPORT_REF bool CHearpRep::append (uint32, const oscl_wchar *, uint32, const oscl_wchar *, Oscl_DefAlloc &)**

7.15.3.3 **OSCL_IMPORT_REF bool CHearpRep::append (uint32, const char *, uint32, const char *, Oscl_DefAlloc &)**

7.15.3.4 **static OSCL_IMPORT_REF void CHearpRep::append_rep (CHearpRep *&, Oscl_DefAlloc &, const oscl_wchar *, uint32) [static]**

7.15.3.5 **static OSCL_IMPORT_REF void CHearpRep::append_rep (CHearpRep *&, Oscl_DefAlloc &, const char *, uint32) [static]**

7.15.3.6 **static OSCL_IMPORT_REF void CHearpRep::assign (CHearpRep *&, CHearpRep *, Oscl_DefAlloc &) [static]**

Referenced by OSCL_wHeapString< Alloc >::operator=(), OSCL_HeapString< Alloc >::operator=(), OSCL_HeapString< Alloc >::OSCL_HeapString(), and OSCL_wHeapString< Alloc >::OSCL_wHeapString().

7.15.3.7 **OSCL_IMPORT_REF void CHearpRep::remove_ref (Oscl_DefAlloc &)**

Referenced by OSCL_HeapString< Alloc >::~OSCL_HeapString(), and OSCL_wHeapString< Alloc >::~OSCL_wHeapString().

7.15.3.8 **OSCL_IMPORT_REF bool CHearpRep::set (uint32, const oscl_wchar *, Oscl_DefAlloc &)**

7.15.3.9 **OSCL_IMPORT_REF bool CHearpRep::set (uint32, const char *, Oscl_DefAlloc &)**

7.15.3.10 **static OSCL_IMPORT_REF void CHearpRep::set_rep (CHearpRep *&, Oscl_DefAlloc &, const oscl_wchar *, uint32) [static]**

7.15.3.11 **static OSCL_IMPORT_REF void CHearpRep::set_rep (CHearpRep *&, Oscl_DefAlloc &, const char *, uint32) [static]**

7.15.4 Field Documentation

7.15.4.1 **OsclAny* CHearpRep::buffer**

Referenced by OSCL_wHeapString< Alloc >::get_cstr(), OSCL_HeapString< Alloc >::get_cstr(), OSCL_wHeapString< Alloc >::get_str(), and OSCL_HeapString< Alloc >::get_str().

7.15.4.2 uint32 CHeapRep::maxsize

Referenced by OSCL_wHeapString< Alloc >::get_maxsize(), and OSCL_HeapString< Alloc >::get_maxsize().

7.15.4.3 uint32 CHeapRep::refcount

7.15.4.4 uint32 CHeapRep::size

Referenced by OSCL_wHeapString< Alloc >::get_size(), OSCL_HeapString< Alloc >::get_size(), OSCL_wHeapString< Alloc >::set(), and OSCL_HeapString< Alloc >::set().

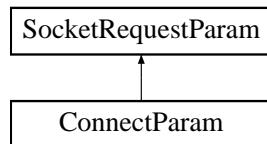
The documentation for this class was generated from the following file:

- [oscl_string_rep.h](#)

7.16 ConnectParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for ConnectParam:



Public Member Functions

- [ConnectParam \(OsclNetworkAddress &anAddr\)](#)

Data Fields

- [OsclNetworkAddress iAddr](#)

7.16.1 Constructor & Destructor Documentation

7.16.1.1 ConnectParam::ConnectParam (OsclNetworkAddress & *anAddr*) [inline]

7.16.2 Field Documentation

7.16.2.1 OsclNetworkAddress ConnectParam::iAddr

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

- [oscl_socket_request.h](#)

7.17 Oscl_TagTree< T, Alloc >::const_iterator Struct Reference

```
#include <oscl_tagtree.h>
```

Public Types

- `typedef const node_type & reference`
- `typedef const node_type * pointer`
- `typedef map_type::const_iterator mapiter`
- `typedef const_iterator self`

Public Member Functions

- `const_iterator()`
- `const_iterator(mapiter x)`
- `const_iterator(const const_iterator &it)`
- `reference operator*() const`
- `pointer operator->() const`
- `bool operator==(const self &x)`
- `bool operator!=(const self &x)`
- `self & operator++()`
- `self operator++(int)`
- `self & operator--()`
- `self operator--(int)`

Data Fields

- `mapiter mapit`

`template<class T, class Alloc> struct Oscl_TagTree< T, Alloc >::const_iterator`

7.17.1 Member Typedef Documentation

- 7.17.1.1 `template<class T, class Alloc> typedef map_type::const_iterator Oscl_TagTree< T, Alloc >::const_iterator::mapiter`
- 7.17.1.2 `template<class T, class Alloc> typedef const node_type* Oscl_TagTree< T, Alloc >::const_iterator::pointer`
- 7.17.1.3 `template<class T, class Alloc> typedef const node_type& Oscl_TagTree< T, Alloc >::const_iterator::reference`
- 7.17.1.4 `template<class T, class Alloc> typedef const_iterator Oscl_TagTree< T, Alloc >::const_iterator::self`

7.17.2 Constructor & Destructor Documentation

- 7.17.2.1 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::const_iterator::const_iterator() [inline]`
- 7.17.2.2 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::const_iterator::const_iterator(mapiter x) [inline]`

References `Oscl_TagTree< T, Alloc >::const_iterator::mapit`.

- 7.17.2.3 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::const_iterator::const_iterator(const const_iterator & it) [inline]`

References `Oscl_TagTree< T, Alloc >::const_iterator::mapit`.

7.17.3 Member Function Documentation

- 7.17.3.1 `template<class T, class Alloc> bool Oscl_TagTree< T, Alloc >::const_iterator::operator!= (const self & x) [inline]`

References `Oscl_TagTree< T, Alloc >::const_iterator::mapit`.

- 7.17.3.2 `template<class T, class Alloc> reference Oscl_TagTree< T, Alloc >::const_iterator::operator* () const [inline]`

Referenced by `Oscl_TagTree< T, Alloc >::const_iterator::operator->()`.

- 7.17.3.3 `template<class T, class Alloc> self Oscl_TagTree< T, Alloc >::const_iterator::operator++ (int) [inline]`

- 7.17.3.4 `template<class T, class Alloc> self& Oscl_TagTree< T, Alloc >::const_iterator::operator++ () [inline]`

References `Oscl_TagTree< T, Alloc >::const_iterator::mapit`.

7.17.3.5 `template<class T, class Alloc> self Oscl_TagTree< T, Alloc >::const_iterator::operator--(int) [inline]`

7.17.3.6 `template<class T, class Alloc> self& Oscl_TagTree< T, Alloc >::const_iterator::operator--() [inline]`

References Oscl_TagTree< T, Alloc >::const_iterator::mapit.

7.17.3.7 `template<class T, class Alloc> pointer Oscl_TagTree< T, Alloc >::const_iterator::operator->() const [inline]`

References Oscl_TagTree< T, Alloc >::const_iterator::operator*().

7.17.3.8 `template<class T, class Alloc> bool Oscl_TagTree< T, Alloc >::const_iterator::operator==(const self & x) [inline]`

References Oscl_TagTree< T, Alloc >::const_iterator::mapit.

7.17.4 Field Documentation

7.17.4.1 `template<class T, class Alloc> mapiter Oscl_TagTree< T, Alloc >::const_iterator::mapit`

Referenced by Oscl_TagTree< T, Alloc >::const_iterator::const_iterator(), Oscl_TagTree< T, Alloc >::const_iterator::operator!=(), Oscl_TagTree< T, Alloc >::const_iterator::operator++(), Oscl_TagTree< T, Alloc >::const_iterator::operator--(), and Oscl_TagTree< T, Alloc >::const_iterator::operator==().

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

- [oscl_tagtree.h](#)

7.18 CStackRep Class Reference

```
#include <oscl_string_rep.h>
```

Public Member Functions

- [CStackRep \(\)](#)
- [OSCL_IMPORT_REF void set \(const char *cp, uint32 len\)](#)
- [OSCL_IMPORT_REF void set \(const oscl_wchar *cp, uint32 len\)](#)
- [OSCL_IMPORT_REF void append \(const char *cp, uint32 len\)](#)
- [OSCL_IMPORT_REF void append \(const oscl_wchar *cp, uint32 len\)](#)

Data Fields

- [uint32 maxsize](#)
- [uint32 size](#)
- [OsclAny * buffer](#)

7.18.1 Detailed Description

For internal use only-- stack string representation

7.18.2 Constructor & Destructor Documentation

7.18.2.1 CStackRep::CStackRep () [inline]

7.18.3 Member Function Documentation

7.18.3.1 OSCL_IMPORT_REF void CStackRep::append (const oscl_wchar * cp, uint32 len)

7.18.3.2 OSCL_IMPORT_REF void CStackRep::append (const char * cp, uint32 len)

7.18.3.3 OSCL_IMPORT_REF void CStackRep::set (const oscl_wchar * cp, uint32 len)

7.18.3.4 OSCL_IMPORT_REF void CStackRep::set (const char * cp, uint32 len)

Referenced by [OSCL_wStackString< MaxBufSize >::set\(\)](#), and [OSCL_StackString< MaxBufSize >::set\(\)](#).

7.18.4 Field Documentation

7.18.4.1 OsclAny* CStackRep::buffer

Referenced by [OSCL_wStackString< MaxBufSize >::get_cstr\(\)](#), [OSCL_StackString< MaxBufSize >::get_cstr\(\)](#), [OSCL_wStackString< MaxBufSize >::get_str\(\)](#), and [OSCL_StackString< MaxBufSize >::get_str\(\)](#).

7.18.4.2 uint32 CStackRep::maxsize

Referenced by OSCL_wStackString< MaxBufSize >::get_maxsize(), and OSCL_StackString< MaxBufSize >::get_maxsize().

7.18.4.3 uint32 CStackRep::size

Referenced by OSCL_wStackString< MaxBufSize >::get_size(), OSCL_StackString< MaxBufSize >::get_size(), OSCL_wStackString< MaxBufSize >::set(), and OSCL_StackString< MaxBufSize >::set().

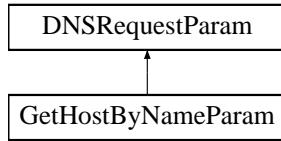
The documentation for this class was generated from the following file:

- [oscl_string_rep.h](#)

7.19 DNSRequestParam Class Reference

```
#include <oscl_dns_param.h>
```

Inheritance diagram for DNSRequestParam:



Public Member Functions

- virtual ~DNSRequestParam ()
- void RemoveRef ()
- virtual void Destroy ()=0

Data Fields

- TPVDNSFx_n iFx_n
- OsclDNSRequest * iDNSRequest

Protected Member Functions

- DNSRequestParam (TPVDNSFx_n aFx_n)

Protected Attributes

- uint32 iRefCount

7.19.1 Constructor & Destructor Documentation

7.19.1.1 virtual DNSRequestParam::~DNSRequestParam () [inline, virtual]

7.19.1.2 DNSRequestParam::DNSRequestParam (TPVDNSFx_n aFx_n) [protected]

7.19.2 Member Function Documentation

7.19.2.1 virtual void DNSRequestParam::Destroy () [pure virtual]

Implemented in [GetHostByNameParam](#).

7.19.2.2 void DNSRequestParam::RemoveRef ()**7.19.3 Field Documentation****7.19.3.1 OsclDNSRequest* DNSRequestParam::iDNSRequest****7.19.3.2 TPVDNSFxn DNSRequestParam::iFxn****7.19.3.3 uint32 DNSRequestParam::iRefCount [protected]**

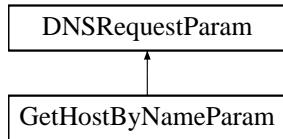
The documentation for this class was generated from the following file:

- [oscl_dns_param.h](#)

7.20 GetHostNameParam Class Reference

```
#include <oscl_dns_param.h>
```

Inheritance diagram for GetHostNameParam:



Public Types

- enum { `addressListCapacity` = 10 }

Public Member Functions

- void `Destroy` ()
- `~GetHostNameParam` ()
- void `PersistHostAddress` (const `OsclNetworkAddress` &`addr`)
- bool `canPersistMoreHostAddresses` ()

Static Public Member Functions

- static `GetHostNameParam` * `Create` (const char *`name`, `OsclNetworkAddress` *&`addr`, `Oscl_-Vector< OsclNetworkAddress, OsclMemAllocator >` *`aAddressList`)

Data Fields

- `char * iName`
- `OsclNetworkAddress * iAddr`
- `Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * iAddressList`

7.20.1 Member Enumeration Documentation

7.20.1.1 anonymous enum

Enumerator:

addressListCapacity

7.20.2 Constructor & Destructor Documentation

7.20.2.1 `GetHostNameParam::~GetHostNameParam ()`

7.20.3 Member Function Documentation

7.20.3.1 `bool GetHostNameParam::canPersistMoreHostAddresses () [inline]`

References `Oscl_Vector_Base::capacity()`, `iAddr`, `iAddressList`, `OsclNetworkAddress::ipAddr`, `OSCL_STATIC_CAST`, `oscl_strcmp()`, `Oscl_Vector_Base::size()`, and `OsclNameString<__len>::Str()`.

7.20.3.2 `static GetHostNameParam* GetHostNameParam::Create (const char * name, OsclNetworkAddress *& addr, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * aAddressList) [static]`

7.20.3.3 `void GetHostNameParam::Destroy () [virtual]`

Implements [DNSRequestParam](#).

7.20.3.4 `void GetHostNameParam::PersistHostAddress (const OsclNetworkAddress & addr) [inline]`

References `Oscl_Vector_Base::capacity()`, `iAddr`, `iAddressList`, `OsclNetworkAddress::ipAddr`, `OSCL_STATIC_CAST`, `oscl_strcmp()`, `Oscl_Vector< T, Alloc >::push_back()`, `OsclNameString<__len>::Set()`, `Oscl_Vector_Base::size()`, and `OsclNameString<__len>::Str()`.

7.20.4 Field Documentation

7.20.4.1 `OsclNetworkAddress* GetHostNameParam::iAddr`

Referenced by `canPersistMoreHostAddresses()`, and `PersistHostAddress()`.

7.20.4.2 `Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >* GetHostNameParam::iAddressList`

Referenced by `canPersistMoreHostAddresses()`, and `PersistHostAddress()`.

7.20.4.3 `char* GetHostNameParam::iName`

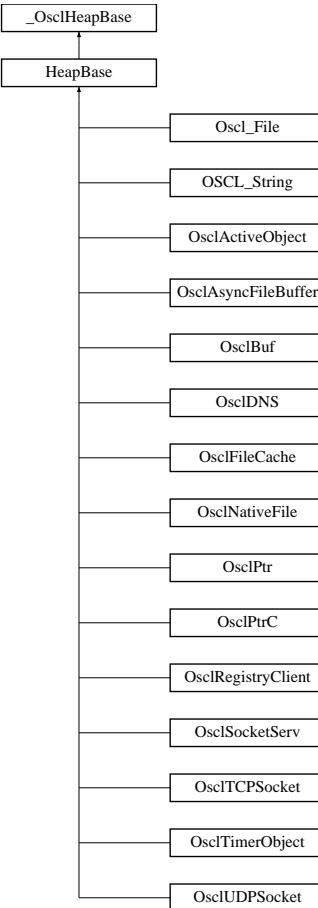
The documentation for this class was generated from the following file:

- [oscl_dns_param.h](#)

7.21 HeapBase Class Reference

```
#include <oscl_mem.h>
```

Inheritance diagram for HeapBase:



Public Member Functions

- [HeapBase \(\)](#)
- virtual [~HeapBase \(\)](#)

Static Public Member Functions

- static void * [operator new \(size_t aSize\)](#)
- static void * [operator new\[\] \(size_t aSize\)](#)
- static void * [operator new\[\] \(size_t aSize, const char *aFile=NULL, const int aLine=0\)](#)
- static void * [operator new \(size_t aSize, void *aPtr\)](#)
- static void [operator delete \(void *aPtr\)](#)
- static void [operator delete\[\] \(void *aPtr\)](#)

7.21.1 Detailed Description

[HeapBase](#) is the base class for all classes that allocates memory.

[HeapBase](#) has overloaded new and delete operators.

Derived from [_OsclHeapBase](#) providing CBase* alike pointer and virtual destructor for cleanupstack to Push and Pop for cleanup when leave occurs.

[HeapBase](#) has a virtual destructor which calls the destructor of all the derived classes.

7.21.2 Constructor & Destructor Documentation

7.21.2.1 `HeapBase::HeapBase () [inline]`

7.21.2.2 `virtual HeapBase::~HeapBase () [inline, virtual]`

7.21.3 Member Function Documentation

7.21.3.1 `static void HeapBase::operator delete (void * aPtr) [inline, static]`

References [_oscl_free\(\)](#).

7.21.3.2 `static void HeapBase::operator delete[] (void * aPtr) [inline, static]`

References [_oscl_free\(\)](#).

7.21.3.3 `static void* HeapBase::operator new (size_t aSize, void * aPtr) [inline, static]`

7.21.3.4 `static void* HeapBase::operator new (size_t aSize) [inline, static]`

References [_oscl_default_new\(\)](#).

7.21.3.5 `static void* HeapBase::operator new[] (size_t aSize, const char * aFile = NULL, const int aLine = 0) [inline, static]`

References [_oscl_default_new\(\)](#), and [OSCL_UNUSED_ARG](#).

7.21.3.6 `static void* HeapBase::operator new[] (size_t aSize) [inline, static]`

References [_oscl_default_new\(\)](#).

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

- [oscl_mem.h](#)

7.22 internalLeave Class Reference

```
#include <oscl_error_imp_cppexceptions.h>
```

Data Fields

- int a

7.22.1 Field Documentation

7.22.1.1 int internalLeave::a

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

- [oscl_error_imp_cppexceptions.h](#)

7.23 Oscl_TagTree< T, Alloc >::iterator Struct Reference

```
#include <oscl_tagtree.h>
```

Public Types

- `typedef node_type & reference`
- `typedef node_type * pointer`
- `typedef map_type::iterator mapiter`
- `typedef iterator self`

Public Member Functions

- `iterator ()`
- `iterator (mapiter x)`
- `iterator (const iterator &it)`
- `reference operator* () const`
- `pointer operator-> () const`
- `bool operator== (const self &x)`
- `bool operator!= (const self &x)`
- `self & operator++ ()`
- `self operator++ (int)`
- `self & operator-- ()`
- `self operator-- (int)`

Data Fields

- `mapiter mapit`

`template<class T, class Alloc> struct Oscl_TagTree< T, Alloc >::iterator`

7.23.1 Member Typedef Documentation

- 7.23.1.1 `template<class T, class Alloc> typedef map_type::iterator Oscl_TagTree< T, Alloc >::iterator::mapiter`
- 7.23.1.2 `template<class T, class Alloc> typedef node_type* Oscl_TagTree< T, Alloc >::iterator::pointer`
- 7.23.1.3 `template<class T, class Alloc> typedef node_type& Oscl_TagTree< T, Alloc >::iterator::reference`
- 7.23.1.4 `template<class T, class Alloc> typedef iterator Oscl_TagTree< T, Alloc >::iterator::self`

7.23.2 Constructor & Destructor Documentation

- 7.23.2.1 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::iterator::iterator () [inline]`
- 7.23.2.2 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::iterator::iterator (mapiter x) [inline]`

References `Oscl_TagTree< T, Alloc >::iterator::mapit`.

- 7.23.2.3 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::iterator::iterator (const iterator & it) [inline]`

References `Oscl_TagTree< T, Alloc >::iterator::mapit`.

7.23.3 Member Function Documentation

- 7.23.3.1 `template<class T, class Alloc> bool Oscl_TagTree< T, Alloc >::iterator::operator!= (const self & x) [inline]`

References `Oscl_TagTree< T, Alloc >::iterator::mapit`.

- 7.23.3.2 `template<class T, class Alloc> reference Oscl_TagTree< T, Alloc >::iterator::operator* () const [inline]`

Referenced by `Oscl_TagTree< T, Alloc >::iterator::operator->()`.

- 7.23.3.3 `template<class T, class Alloc> self Oscl_TagTree< T, Alloc >::iterator::operator++ (int) [inline]`

- 7.23.3.4 `template<class T, class Alloc> self& Oscl_TagTree< T, Alloc >::iterator::operator++ 0 [inline]`

References `Oscl_TagTree< T, Alloc >::iterator::mapit`.

7.23.3.5 **template<class T, class Alloc> self Oscl_TagTree< T, Alloc >::iterator::operator-- (int) [inline]**

7.23.3.6 **template<class T, class Alloc> self& Oscl_TagTree< T, Alloc >::iterator::operator-- () [inline]**

References Oscl_TagTree< T, Alloc >::iterator::mapit.

7.23.3.7 **template<class T, class Alloc> pointer Oscl_TagTree< T, Alloc >::iterator::operator-> () const [inline]**

References Oscl_TagTree< T, Alloc >::iterator::operator*().

7.23.3.8 **template<class T, class Alloc> bool Oscl_TagTree< T, Alloc >::iterator::operator==(const self & x) [inline]**

References Oscl_TagTree< T, Alloc >::iterator::mapit.

7.23.4 Field Documentation

7.23.4.1 **template<class T, class Alloc> mapiter Oscl_TagTree< T, Alloc >::iterator::mapit**

Referenced by Oscl_TagTree< T, Alloc >::iterator::iterator(), Oscl_TagTree< T, Alloc >::iterator::operator!=(), Oscl_TagTree< T, Alloc >::iterator::operator++(), Oscl_TagTree< T, Alloc >::iterator::operator--(), and Oscl_TagTree< T, Alloc >::iterator::operator==().

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

- [oscl_tagtree.h](#)

7.24 LinkedListElement< LLClass > Class Template Reference

```
#include <oscl_linked_list.h>
```

Public Member Functions

- [LinkedListElement \(LLClass in_data\)](#)

Data Fields

- [LinkedListElement< LLClass > * next](#)
- [LLClass data](#)

7.24.1 Detailed Description

template<class LLClass> class LinkedListElement< LLClass >

Linked List Element Class

7.24.2 Constructor & Destructor Documentation

7.24.2.1 template<class LLClass> LinkedListElement< LLClass >::LinkedListElement (LLClass in_data) [inline]

References [LinkedListElement< LLClass >::data](#), [LinkedListElement< LLClass >::next](#), and [NULL](#).

7.24.3 Field Documentation

7.24.3.1 template<class LLClass> LLClass LinkedListElement< LLClass >::data

Referenced by [LinkedListElement< LLClass >::LinkedListElement\(\)](#).

7.24.3.2 template<class LLClass> LinkedListElement<LLClass>*> LinkedElement< LLClass >::next

Referenced by [LinkedListElement< LLClass >::LinkedListElement\(\)](#).

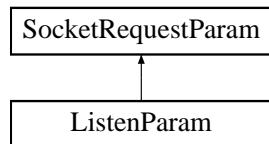
The documentation for this class was generated from the following file:

- [oscl_linked_list.h](#)

7.25 ListenParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for ListenParam:



Public Member Functions

- [ListenParam \(uint32 aSize\)](#)

Data Fields

- uint32 [iQSize](#)

7.25.1 Constructor & Destructor Documentation

7.25.1.1 [ListenParam::ListenParam \(uint32 aSize\) \[inline\]](#)

7.25.2 Field Documentation

7.25.2.1 [uint32 ListenParam::iQSize](#)

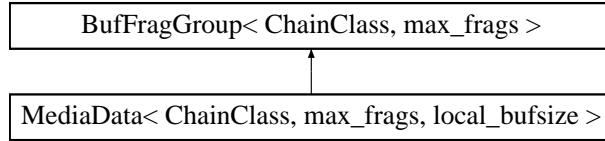
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.26 `MediaData< ChainClass, max_frags, local_bufsize >` Class Template Reference

```
#include <oscl_media_data.h>
```

Inheritance diagram for `MediaData< ChainClass, max_frags, local_bufsize >`:



Public Member Functions

- `MediaData ()`
- virtual `~MediaData ()`
- `uint32 GetLocalBufsize () const`
- `MediaTimestamp GetTimestamp () const`
- `void SetTimestamp (MediaTimestamp in_timestamp)`
- `uint32 GetAvailableBufferSize () const`
- `MediaStatusClass::status_t GetLocalFragment (BufferFragment &fragment)`
- virtual void `Clear ()`
- `bool IsLocalData (const OsclMemoryFragment &frag) const`
- `int GetMediaSize () const`
- `BufferFragment * GetMediaFragment (const uint32 idx)`
- `uint32 GetNumMediaFrags (const uint32 idx) const`

Protected Member Functions

- `MediaStatusClass::status_t AddLocalFragment (const BufferFragment &frag, int32 location_offset)`

Protected Attributes

- `MediaTimestamp timestamp`
- `uint8 localbuf [local_bufsize]`
- `uint32 available_localbuf`
- `int num_reserved_fragments`

`template<class ChainClass, uint32 max_frags, uint32 local_bufsize> class MediaData< ChainClass, max_frags, local_bufsize >`

7.26.1 Constructor & Destructor Documentation

7.26.1.1 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> MediaData< ChainClass, max_frags, local_bufsize >::MediaData () [inline]`

7.26.1.2 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> virtual MediaData< ChainClass, max_frags, local_bufsize >::~MediaData () [inline, virtual]`

7.26.2 Member Function Documentation

7.26.2.1 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> MediaStatusClass::status_t MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment (const BufferFragment &frag, int32 location_offset) [inline, protected]`

References `MediaData< ChainClass, max_frags, local_bufsize >::available_localbuf`, `BuffFragStatusClass::BFG_SUCCESS`, `BuffFragGroup< ChainClass, max_frags >::buffer_states`, `BuffFragStatusClass::EMPTY_FRAGMENT`, `BuffFragGroup< ChainClass, max_frags >::fragments`, `OsclMemoryFragment::len`, `BuffFragGroup< ChainClass, max_frags >::length`, `MediaData< ChainClass, max_frags, local_bufsize >::localbuf`, `BuffFragStatusClass::NOT_ENOUGH_SPACE`, `NULL`, `BuffFragGroup< ChainClass, max_frags >::num.fragments`, `oscl_memcpy()`, `oscl_memmove()`, `OsclMemoryFragment::ptr`, and `BuffFragStatusClass::TOO_MANY_FRAGS`.

7.26.2.2 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> virtual void MediaData< ChainClass, max_frags, local_bufsize >::Clear () [inline, virtual]`

Reimplemented from [BufFragGroup< ChainClass, max_frags >](#).

References `MediaData< ChainClass, max_frags, local_bufsize >::available_localbuf`, `BuffFragGroup< ChainClass, max_frags >::buffer_states`, `BufferState::decrement_refcnt()`, `BuffFragGroup< ChainClass, max_frags >::fragments`, `BuffFragGroup< ChainClass, max_frags >::length`, `BuffFragGroup< ChainClass, max_frags >::num.fragments`, and `oscl_memset()`.

7.26.2.3 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> uint32 MediaData< ChainClass, max_frags, local_bufsize >::GetAvailableBufferSize () const [inline]`

References `MediaData< ChainClass, max_frags, local_bufsize >::available_localbuf`.

7.26.2.4 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> uint32 MediaData< ChainClass, max_frags, local_bufsize >::GetLocalBufsize () const [inline]`

7.26.2.5 `template<class ChainClass , uint32 max_frags, uint32 local_bufsize> MediaStatusClass::status_t MediaData< ChainClass, max_frags, local_bufsize >::GetLocalFragment (BufferFragment &fragment) [inline]`

References `MediaData< ChainClass, max_frags, local_bufsize >::available_localbuf`, `BuffFragStatusClass::BFG_SUCCESS`, `OsclMemoryFragment::len`, `MediaData< ChainClass, max_frags,`

local_bufsize >::localbuf, BufFragStatusClass::NOT_ENOUGH_SPACE, NULL, and OsclMemoryFragment::ptr.

7.26.2.6 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> BufferFragment* MediaData< ChainClass, max_frags, local_bufsize >::GetMediaFragment (const uint32 *idx*) [inline]

References BufFragGroup< ChainClass, max_frags >::fragments, NULL, BufFragGroup< ChainClass, max_frags >::num_fragments, and MediaData< ChainClass, max_frags, local_bufsize >::num_reserved_fragments.

7.26.2.7 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> int MediaData< ChainClass, max_frags, local_bufsize >::GetMediaSize () const [inline]

References BufFragGroup< ChainClass, max_frags >::fragments, BufFragGroup< ChainClass, max_frags >::length, and MediaData< ChainClass, max_frags, local_bufsize >::num_reserved_fragments.

7.26.2.8 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> uint32 MediaData< ChainClass, max_frags, local_bufsize >::GetNumMediaFrags (const uint32 *idx*) const [inline]

References BufFragGroup< ChainClass, max_frags >::num_fragments, and MediaData< ChainClass, max_frags, local_bufsize >::num_reserved_fragments.

7.26.2.9 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> MediaTimestamp MediaData< ChainClass, max_frags, local_bufsize >::GetTimestamp () const [inline]

References MediaData< ChainClass, max_frags, local_bufsize >::timestamp.

7.26.2.10 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> bool MediaData< ChainClass, max_frags, local_bufsize >::IsLocalData (const OsclMemoryFragment & *frag*) const [inline]

References OsclMemoryFragment::len, MediaData< ChainClass, max_frags, local_bufsize >::localbuf, NULL, and OsclMemoryFragment::ptr.

7.26.2.11 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> void MediaData< ChainClass, max_frags, local_bufsize >::SetTimestamp (MediaTimestamp *in_timestamp*) [inline]

References MediaData< ChainClass, max_frags, local_bufsize >::timestamp.

7.26.3 Field Documentation

7.26.3.1 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> uint32 MediaData<ChainClass, max_frags, local_bufsize >::available_localbuf [protected]

Referenced by MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::Clear(), MediaData< ChainClass, max_frags, local_bufsize >::GetAvailableBufferSize(), and MediaData< ChainClass, max_frags, local_bufsize >::GetLocalFragment().

7.26.3.2 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> uint8 MediaData<ChainClass, max_frags, local_bufsize >::localbuf[local_bufsize] [protected]

Referenced by MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetLocalFragment(), and MediaData< ChainClass, max_frags, local_bufsize >::IsLocalData().

7.26.3.3 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> int MediaData<ChainClass, max_frags, local_bufsize >::num_reserved.fragments [protected]

Referenced by MediaData< ChainClass, max_frags, local_bufsize >::GetMediaFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetMediaSize(), and MediaData< ChainClass, max_frags, local_bufsize >::GetNumMediaFrags().

7.26.3.4 template<class ChainClass , uint32 max_frags, uint32 local_bufsize> MediaTimestamp MediaData< ChainClass, max_frags, local_bufsize >::timestamp [protected]

Referenced by MediaData< ChainClass, max_frags, local_bufsize >::GetTimestamp(), and MediaData< ChainClass, max_frags, local_bufsize >::SetTimestamp().

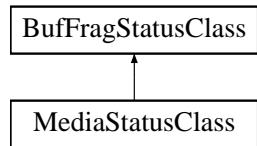
The documentation for this class was generated from the following file:

- [oscl_media_data.h](#)

7.27 MediaStatusClass Class Reference

```
#include <oscl_media_status.h>
```

Inheritance diagram for MediaStatusClass:



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

- [oscl_media_status.h](#)

7.28 MemAllocator< T > Class Template Reference

```
#include <oscl_media_data.h>
```

Public Types

- `typedef T * pointer`

Public Member Functions

- `virtual pointer allocate (void *hint=0, const int num_reserved_frags=1)=0`
- `virtual void deallocate (pointer p)=0`
- `virtual ~MemAllocator ()`

```
template<class T> class MemAllocator< T >
```

7.28.1 Member Typedef Documentation

7.28.1.1 template<class T > `typedef T* MemAllocator< T >::pointer`

7.28.2 Constructor & Destructor Documentation

7.28.2.1 template<class T > `virtual MemAllocator< T >::~MemAllocator () [inline, virtual]`

7.28.3 Member Function Documentation

7.28.3.1 template<class T > `virtual pointer MemAllocator< T >::allocate (void * hint = 0, const int num_reserved_frags = 1) [pure virtual]`

7.28.3.2 template<class T > `virtual void MemAllocator< T >::deallocate (pointer p) [pure virtual]`

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

- `oscl_media_data.h`

7.29 OsclMemPoolResizableAllocator::MemPoolBlockInfo Struct Reference

```
#include <oscl_mem_mempool.h>
```

Data Fields

- uint32 [iBlockPrefence](#)
- [MemPoolBlockInfo](#) * [iNextFreeBlock](#)
- [MemPoolBlockInfo](#) * [iPrevFreeBlock](#)
- uint32 [iBlockSize](#)
- uint8 * [iBlockBuffer](#)
- [MemPoolBufferInfo](#) * [iParentBuffer](#)
- uint32 [iBlockPostFence](#)

7.29.1 Field Documentation

7.29.1.1 uint8* [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iBlockBuffer](#)

7.29.1.2 uint32 [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iBlockPostFence](#)

7.29.1.3 uint32 [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iBlockPrefence](#)

7.29.1.4 uint32 [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iBlockSize](#)

7.29.1.5 [MemPoolBlockInfo](#)* [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iNextFreeBlock](#)

7.29.1.6 [MemPoolBufferInfo](#)* [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iParentBuffer](#)

7.29.1.7 [MemPoolBlockInfo](#)* [OsclMemPoolResizableAllocator::MemPoolBlockInfo::iPrevFreeBlock](#)

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

- [oscl_mem_mempool.h](#)

7.30 OsclMemPoolResizableAllocator::MemPoolBufferInfo Struct Reference

```
#include <oscl_mem_mempool.h>
```

Data Fields

- uint32 [iBufferPreFence](#)
- [OsclAny](#) * [iStartAddr](#)
- [OsclAny](#) * [iEndAddr](#)
- uint32 [iBufferSize](#)
- uint32 [iNumOutstanding](#)
- [MemPoolBlockInfo](#) * [iNextFreeBlock](#)
- [MemPoolBlockInfo](#) * [iPrevAllocBlock](#)
- uint32 [iAllocatedSz](#)
- uint32 [iBufferPostFence](#)

7.30.1 Field Documentation

7.30.1.1 uint32 OsclMemPoolResizableAllocator::MemPoolBufferInfo::iAllocatedSz

7.30.1.2 uint32 OsclMemPoolResizableAllocator::MemPoolBufferInfo::iBufferPostFence

7.30.1.3 uint32 OsclMemPoolResizableAllocator::MemPoolBufferInfo::iBufferPreFence

7.30.1.4 uint32 OsclMemPoolResizableAllocator::MemPoolBufferInfo::iBufferSize

7.30.1.5 OsclAny* OsclMemPoolResizableAllocator::MemPoolBufferInfo::iEndAddr

7.30.1.6 MemPoolBlockInfo* OsclMemPoolResizableAllocator::MemPoolBufferInfo::iNextFreeBlock

7.30.1.7 uint32 OsclMemPoolResizableAllocator::MemPoolBufferInfo::iNumOutstanding

7.30.1.8 MemPoolBlockInfo* OsclMemPoolResizableAllocator::MemPoolBufferInfo::iPrevAllocBlock

7.30.1.9 OsclAny* OsclMemPoolResizableAllocator::MemPoolBufferInfo::iStartAddr

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

- [oscl_mem_mempool.h](#)

7.31 MM_AllocBlockFence Struct Reference

```
#include <oscl_mem_audit_internals.h>
```

Public Member Functions

- [MM_AllocBlockFence \(\)](#)
- [void fill_fence \(\)](#)
- [bool check_fence \(\)](#)

Data Fields

- [uint8 pad \[COMPUTE_MEM_ALIGN_SIZE\(sizeof\(MM_AllocBlockHdr\), MIN_FENCE_SIZE, MEM_ALIGN_SIZE\)\]](#)

7.31.1 Constructor & Destructor Documentation

7.31.1.1 [MM_AllocBlockFence::MM_AllocBlockFence \(\) \[inline\]](#)

References [fill_fence\(\)](#).

7.31.2 Member Function Documentation

7.31.2.1 [bool MM_AllocBlockFence::check_fence \(\) \[inline\]](#)

References [FENCE_PATTERN](#), and [pad](#).

7.31.2.2 [void MM_AllocBlockFence::fill_fence \(\) \[inline\]](#)

References [FENCE_PATTERN](#), [oscl_memset\(\)](#), and [pad](#).

Referenced by [MM_AllocBlockFence\(\)](#).

7.31.3 Field Documentation

7.31.3.1 [uint8 MM_AllocBlockFence::pad\[COMPUTE_MEM_ALIGN_SIZE\(sizeof\(MM_AllocBlockHdr\), MIN_FENCE_SIZE, MEM_ALIGN_SIZE\)\]](#)

Referenced by [check_fence\(\)](#), and [fill_fence\(\)](#).

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

- [oscl_mem_audit_internals.h](#)

7.32 MM_AllocBlockHdr Struct Reference

```
#include <oscl_mem_audit_internals.h>
```

Public Member Functions

- `bool isAllocNodePtr ()`
- `void setAllocNodeFlag ()`
- `MM_AllocBlockHdr ()`
- `MM_AllocBlockHdr (void *ptr, uint32 inSize)`

Data Fields

- `void * pNode`
- `uint32 size`
- `void * pRootNode`
- `uint32 pad`

Static Public Attributes

- `static const uint32 ALLOC_NODE_FLAG = 0x80000000`

7.32.1 Constructor & Destructor Documentation

7.32.1.1 `MM_AllocBlockHdr::MM_AllocBlockHdr () [inline]`

7.32.1.2 `MM_AllocBlockHdr::MM_AllocBlockHdr (void *ptr, uint32 inSize) [inline]`

7.32.2 Member Function Documentation

7.32.2.1 `bool MM_AllocBlockHdr::isAllocNodePtr () [inline]`

References ALLOC_NODE_FLAG, and size.

7.32.2.2 `void MM_AllocBlockHdr::setAllocNodeFlag () [inline]`

References ALLOC_NODE_FLAG, and size.

7.32.3 Field Documentation

7.32.3.1 `uint32 MM_AllocBlockHdr::pad`

7.32.3.2 `void* MM_AllocBlockHdr::pNode`

7.32.3.3 `void* MM_AllocBlockHdr::pRootNode`

7.32.3.4 `uint32 MM_AllocBlockHdr::size`

Referenced by `isAllocNodePtr()`, and `setAllocNodeFlag()`.

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

- [oscl_mem_audit_internals.h](#)

7.33 MM_AllocInfo Struct Reference

```
#include <oscl_mem_audit.h>
```

Public Member Functions

- [MM_AllocInfo \(\)](#)
- [~MM_AllocInfo \(\)](#)
- [void * operator new \(oscl_memsize_t size\)](#)
- [void * operator new \(oscl_memsize_t size, MM_AllocInfo *ptr\)](#)
- [void operator delete \(void *ptr\) throw \(\)](#)

Data Fields

- [uint32 allocNum](#)
- [char * pFileName](#)
- [uint32 lineNo](#)
- [uint32 size](#)
- [void * pMemBlock](#)
- [OsclMemStatsNode * pStatsNode](#)
- [bool bSetFailure](#)

7.33.1 Constructor & Destructor Documentation

7.33.1.1 MM_AllocInfo::MM_AllocInfo () [inline]

References oscl_memset().

7.33.1.2 MM_AllocInfo::~MM_AllocInfo () [inline]

References Oscl_TAlloc< T, Alloc >::deallocate(), and pFileName.

7.33.2 Member Function Documentation

7.33.2.1 void MM_AllocInfo::operator delete (void *ptr) throw () [inline]

References Oscl_TAlloc< T, Alloc >::deallocate().

7.33.2.2 void* MM_AllocInfo::operator new (oscl_memsize_t size, MM_AllocInfo *ptr) [inline]

References OSCL_UNUSED_ARG.

7.33.2.3 void* MM_AllocInfo::operator new (oscl_memsize_t size) [inline]

References Oscl_TAlloc< T, Alloc >::allocate(), and OSCL_UNUSED_ARG.

7.33.3 Field Documentation

7.33.3.1 **uint32 MM_AllocInfo::allocNum**

7.33.3.2 **bool MM_AllocInfo::bSetFailure**

7.33.3.3 **uint32 MM_AllocInfo::lineNo**

7.33.3.4 **char* MM_AllocInfo::pFileName**

Referenced by ~MM_AllocInfo().

7.33.3.5 **void* MM_AllocInfo::pMemBlock**

7.33.3.6 **OsclMemStatsNode* MM_AllocInfo::pStatsNode**

7.33.3.7 **uint32 MM_AllocInfo::size**

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

- [oscl_mem_audit.h](#)

7.34 MM_AllocNode Struct Reference

```
#include <oscl_mem_audit.h>
```

Public Member Functions

- `MM_AllocNode ()`
- `~MM_AllocNode ()`
- `void * operator new (oscl_memsize_t size)`
- `void * operator new (oscl_memsize_t size, MM_AllocNode *ptr)`
- `void operator delete (void *ptr) throw ()`

Data Fields

- `MM_AllocInfo * pAllocInfo`
- `MM_AllocNode * pPrev`
- `MM_AllocNode * pNext`

7.34.1 Constructor & Destructor Documentation

7.34.1.1 MM_AllocNode::MM_AllocNode () [inline]

References `oscl_memset()`.

7.34.1.2 MM_AllocNode::~MM_AllocNode () [inline]

References `OSCL_DELETE`, and `pAllocInfo`.

7.34.2 Member Function Documentation

7.34.2.1 void MM_AllocNode::operator delete (void *ptr) throw () [inline]

References `Oscl_TAlloc< T, Alloc >::deallocate()`.

7.34.2.2 void* MM_AllocNode::operator new (oscl_memsize_t size, MM_AllocNode *ptr) [inline]

References `OSCL_UNUSED_ARG`.

7.34.2.3 void* MM_AllocNode::operator new (oscl_memsize_t size) [inline]

References `Oscl_TAlloc< T, Alloc >::allocate()`, and `OSCL_UNUSED_ARG`.

7.34.3 Field Documentation

7.34.3.1 MM_AllocInfo* MM_AllocNode::pAllocInfo

Referenced by ~MM_AllocNode().

7.34.3.2 MM_AllocNode* MM_AllocNode::pNext

7.34.3.3 MM_AllocNode* MM_AllocNode::pPrev

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

- [oscl_mem_audit.h](#)

7.35 MM_AllocQueryInfo Struct Reference

```
#include <oscl_mem_audit.h>
```

Data Fields

- uint32 `allocNum`
- char `fileName` [MM_ALLOC_MAX_QUERY_FILENAME_LEN]
- uint32 `lineNo`
- uint32 `size`
- const void * `pMemBlock`
- char `tag` [MM_ALLOC_MAX_QUERY_TAG_LEN]

7.35.1 Field Documentation

7.35.1.1 uint32 MM_AllocQueryInfo::allocNum

7.35.1.2 char MM_AllocQueryInfo::fileName[MM_ALLOC_MAX_QUERY_FILENAME_LEN]

7.35.1.3 uint32 MM_AllocQueryInfo::lineNo

7.35.1.4 const void* MM_AllocQueryInfo::pMemBlock

7.35.1.5 uint32 MM_AllocQueryInfo::size

7.35.1.6 char MM_AllocQueryInfo::tag[MM_ALLOC_MAX_QUERY_TAG_LEN]

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

- [oscl_mem_audit.h](#)

7.36 MM_Audit_Imp Class Reference

```
#include <oscl_mem_audit.h>
```

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

- [oscl_mem_audit.h](#)

7.37 MM_AuditOverheadStats Struct Reference

```
#include <oscl_mem_audit.h>
```

Data Fields

- uint32 [per_allocation_overhead](#)
- uint32 [stats_overhead](#)

7.37.1 Field Documentation

7.37.1.1 uint32 MM_AuditOverheadStats::per_allocation_overhead

7.37.1.2 uint32 MM_AuditOverheadStats::stats_overhead

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

- [oscl_mem_audit.h](#)

7.38 MM_FailInsertParam Struct Reference

```
#include <oscl_mem_audit.h>
```

Public Member Functions

- [MM_FailInsertParam \(\)](#)
- [void reset \(\)](#)
- [void * operator new \(oscl_memsize_t size\)](#)
- [void * operator new \(oscl_memsize_t size, MM_FailInsertParam *ptr\)](#)
- [void operator delete \(void *ptr\) throw \(\)](#)

Data Fields

- [uint32 nAllocNum](#)
- [uint16 xsubi \[3\]](#)

7.38.1 Constructor & Destructor Documentation

7.38.1.1 MM_FailInsertParam::MM_FailInsertParam () [inline]

References oscl_memset(), and xsubi.

7.38.2 Member Function Documentation

7.38.2.1 void MM_FailInsertParam::operator delete (void *ptr) throw () [inline]

References Oscl_TAlloc< T, Alloc >::deallocate().

7.38.2.2 void* MM_FailInsertParam::operator new (oscl_memsize_t size, MM_FailInsertParam *ptr) [inline]

References OSCL_UNUSED_ARG.

7.38.2.3 void* MM_FailInsertParam::operator new (oscl_memsize_t size) [inline]

References Oscl_TAlloc< T, Alloc >::allocate(), and OSCL_UNUSED_ARG.

7.38.2.4 void MM_FailInsertParam::reset () [inline]

References nAllocNum, oscl_memset(), and xsubi.

Referenced by OsclMemStatsNode::reset().

7.38.3 Field Documentation

7.38.3.1 uint32 MM_FailInsertParam::nAllocNum

Referenced by `reset()`.

7.38.3.2 uint16 MM_FailInsertParam::xsubi[3]

Referenced by `MM_FailInsertParam()`, and `reset()`.

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

- [oscl_mem_audit.h](#)

7.39 MM_Stats_CB Struct Reference

```
#include <oscl_mem_audit.h>
```

Public Member Functions

- [MM_Stats_CB \(\)](#)
- [void * operator new \(oscl_memsize_t size\)](#)
- [void * operator new \(oscl_memsize_t size, MM_Stats_CB *ptr\)](#)
- [void operator delete \(void *ptr\) throw \(\)](#)

Data Fields

- [const char * tag](#)
- [const MM_Stats_t * pStats](#)
- [uint32 num_child_nodes](#)

7.39.1 Constructor & Destructor Documentation

7.39.1.1 MM_Stats_CB::MM_Stats_CB () [inline]

References oscl_memset().

7.39.2 Member Function Documentation

7.39.2.1 void MM_Stats_CB::operator delete (void *ptr) throw () [inline]

References Oscl_TAlloc< T, Alloc >::deallocate().

7.39.2.2 void* MM_Stats_CB::operator new (oscl_memsize_t size, MM_Stats_CB *ptr) [inline]

References OSCL_UNUSED_ARG.

7.39.2.3 void* MM_Stats_CB::operator new (oscl_memsize_t size) [inline]

References Oscl_TAlloc< T, Alloc >::allocate(), and OSCL_UNUSED_ARG.

7.39.3 Field Documentation

7.39.3.1 uint32 MM_Stats_CB::num_child_nodes

7.39.3.2 const MM_Stats_t* MM_Stats_CB::pStats

7.39.3.3 const char* MM_Stats_CB::tag

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

- [oscl_mem_audit.h](#)

7.40 MM_Stats_t Struct Reference

```
#include <oscl_mem_audit.h>
```

Public Member Functions

- [MM_Stats_t \(\)](#)
- [MM_Stats_t \(uint32 sizeIn\)](#)
- [void reset \(\)](#)
- [void update \(const MM_Stats_t &delta, bool add\)](#)
- [void * operator new \(oscl_memsize_t size\)](#)
- [void * operator new \(oscl_memsize_t size, MM_Stats_t *ptr\)](#)
- [void operator delete \(void *ptr\) throw \(\)](#)

Data Fields

- [uint32 numBytes](#)
- [uint32 peakNumBytes](#)
- [uint32 numAllocs](#)
- [uint32 peakNumAllocs](#)
- [uint32 numAllocFails](#)
- [uint32 totalNumAllocs](#)
- [uint32 totalNumBytes](#)

7.40.1 Constructor & Destructor Documentation

7.40.1.1 MM_Stats_t::MM_Stats_t () [inline]

References [oscl_memset\(\)](#).

7.40.1.2 MM_Stats_t::MM_Stats_t (uint32 sizeIn) [inline]

References [numAllocFails](#), [numAllocs](#), [numBytes](#), [peakNumAllocs](#), [peakNumBytes](#), [totalNumAllocs](#), and [totalNumBytes](#).

7.40.2 Member Function Documentation

7.40.2.1 void MM_Stats_t::operator delete (void * ptr) throw () [inline]

References [Oscl_TAlloc< T, Alloc >::deallocate\(\)](#).

7.40.2.2 void* MM_Stats_t::operator new (oscl_memsize_t size, MM_Stats_t * ptr) [inline]

References [OSCL_UNUSED_ARG](#).

7.40.2.3 void* MM_Stats_t::operator new (oscl_memsize_t size) [inline]

References [Oscl_TAlloc< T, Alloc >::allocate\(\)](#), and [OSCL_UNUSED_ARG](#).

7.40.2.4 void MM_Stats_t::reset () [inline]

References oscl_memset().

Referenced by OsclMemStatsNode::reset().

7.40.2.5 void MM_Stats_t::update (const MM_Stats_t & *delta*, bool *add*) [inline]

References numAllocFails, numAllocs, numBytes, peakNumAllocs, peakNumBytes, totalNumAllocs, and totalNumBytes.

7.40.3 Field Documentation

7.40.3.1 uint32 MM_Stats_t::numAllocFails

Referenced by MM_Stats_t(), and update().

7.40.3.2 uint32 MM_Stats_t::numAllocs

Referenced by MM_Stats_t(), and update().

7.40.3.3 uint32 MM_Stats_t::numBytes

Referenced by MM_Stats_t(), and update().

7.40.3.4 uint32 MM_Stats_t::peakNumAllocs

Referenced by MM_Stats_t(), and update().

7.40.3.5 uint32 MM_Stats_t::peakNumBytes

Referenced by MM_Stats_t(), and update().

7.40.3.6 uint32 MM_Stats_t::totalNumAllocs

Referenced by MM_Stats_t(), and update().

7.40.3.7 uint32 MM_Stats_t::totalNumBytes

Referenced by MM_Stats_t(), and update().

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

- [oscl_mem_audit.h](#)

7.41 Oscl_TagTree< T, Alloc >::Node Struct Reference

```
#include <oscl_tagtree.h>
```

Public Types

- `typedef Oscl_Vector< Node *, Alloc > children_type`

Public Member Functions

- `Node ()`
- `void sort_children ()`
- `tag_type::size_type depth ()`

Data Fields

- `tag_type tag`
- `T value`
- `Node * parent`
- `children_type children`

```
template<class T, class Alloc> struct Oscl_TagTree< T, Alloc >::Node
```

7.41.1 Member Typedef Documentation

7.41.1.1 `template<class T, class Alloc> typedef Oscl_Vector<Node*, Alloc> Oscl_TagTree< T, Alloc >::Node::children_type`

7.41.2 Constructor & Destructor Documentation

7.41.2.1 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::Node::Node () [inline]`

7.41.3 Member Function Documentation

7.41.3.1 `template<class T, class Alloc> tag_type::size_type Oscl_TagTree< T, Alloc >::Node::depth () [inline]`

References `Oscl_Tag< Alloc >::tag`, `Oscl_TagTree< T, Alloc >::Node::tag`, and `Oscl_Tag_Base::tag_depth()`.

7.41.3.2 `template<class T, class Alloc> void Oscl_TagTree< T, Alloc >::Node::sort_children () [inline]`

References `Oscl_Vector< T, Alloc >::begin()`, `Oscl_TagTree< T, Alloc >::Node::children`, `Oscl_Vector_Base::empty()`, and `Oscl_Vector< T, Alloc >::end()`.

7.41.4 Field Documentation

7.41.4.1 template<class T, class Alloc> children_type Oscl_TagTree< T, Alloc >::Node::children

Referenced by Oscl_TagTree< T, Alloc >::Node::sort_children().

7.41.4.2 template<class T, class Alloc> Node* Oscl_TagTree< T, Alloc >::Node::parent

7.41.4.3 template<class T, class Alloc> tag_type Oscl_TagTree< T, Alloc >::Node::tag

Referenced by Oscl_TagTree< T, Alloc >::Node::depth().

7.41.4.4 template<class T, class Alloc> T Oscl_TagTree< T, Alloc >::Node::value

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

- [oscl_tagtree.h](#)

7.42 NTPTime Class Reference

The `NTPTime` class represents a time value as the number of seconds since 0h (UTC) Jan. 1, 1900.

```
#include <oscl_time.h>
```

Public Member Functions

- `OSCL_COND_IMPORT_REF NTPTime ()`
The default constructor creates an `NTPTime` instance representing the current system time.
- `OSCL_COND_IMPORT_REF NTPTime (const NTPTime &src)`
Copy constructor to create a new `NTPTime` from an existing one.
- `OSCL_COND_IMPORT_REF NTPTime (const uint32 seconds)`
Construct an `NTPTime` from a uint32.
- `OSCL_COND_IMPORT_REF NTPTime (const int32 seconds)`
Construct an `NTPTime` from a int.
- `OSCL_COND_IMPORT_REF NTPTime (const TimeValue &t)`
Construct a `NTPTime` instance from a `TimeValue` instance.
- `OSCL_COND_IMPORT_REF NTPTime (const uint64 value)`
Construct a `NTPTime` instance from a uint64 value.
- `OSCL_COND_IMPORT_REF NTPTime & operator= (uint32 newval)`
The assignment operator for a 32 bit integer.
- `OSCL_COND_IMPORT_REF NTPTime & operator= (uint64 newval)`
The assignment operator for a 64 bit integer.
- `OSCL_COND_IMPORT_REF NTPTime & operator+= (uint64 val)`
The += operator is used to add a 64 bit 32.32 value to an existing `NTPTime` value.
- `OSCL_COND_IMPORT_REF NTPTime operator- (const NTPTime &npt) const`
The - operator allows subtraction of one `NTPTime` value from another. This is useful to measure an interval.
- `void set_from_system_time (const uint32 systemtime)`
This method converts a 32-bit system time to NTP time.
- `OSCL_COND_IMPORT_REF uint32 get_middle32 () const`
Grab the middle 32 bits of the 64 bit 32.32 representation.
- `OSCL_COND_IMPORT_REF uint32 get_upper32 () const`
This method returns the upper 32 bits of the 32.32 representation.
- `OSCL_COND_IMPORT_REF uint32 get_lower32 () const`
This method returns the lower 32 bits of the 32.32 representation.

- int32 [to_system_time \(\) const](#)
This method converts the ntp time value to system time.
- OSCL_COND_IMPORT_REF uint64 [get_value \(\) const](#)
This method returns the 32.32 ntp representation.
- OSCL_IMPORT_REF int [set_to_current_time \(\)](#)
This method sets the 32.32 representation to the current system time value.

7.42.1 Detailed Description

The [NTPTime](#) class represents a time value as the number of seconds since 0h (UTC) Jan. 1, 1900. The [NTPTime](#) class: Conversion to/from Unix (epoch at 0h Jan. 1, 1970) amount to addition/subtraction of 2208988800. A single 64 bit value is used to represent the time. This value represents the number of seconds since 0h (UTC) Jan. 1, 1900. There is an implied binary point between the upper 32 bits and lower 32 bits (this is referred to as a 32.32 fractional representation). For example a binary value of 00000000 00000000 00000011 10000000 00000000 00000000 00000000 represents 3.5 seconds since Jan 1, 1900.

7.42.2 Constructor & Destructor Documentation

7.42.2.1 OSCL_COND_IMPORT_REF NTPTime::NTPTime ()

The default constructor creates an [NTPTime](#) instance representing the current system time.

7.42.2.2 OSCL_COND_IMPORT_REF NTPTime::NTPTime (const NTPTime & src)

Copy constructor to create a new [NTPTime](#) from an existing one.

7.42.2.3 OSCL_COND_IMPORT_REF NTPTime::NTPTime (const uint32 seconds)

Construct an [NTPTime](#) from a uint32.

Parameters

seconds The uint32 input represents the number of seconds since Jan. 1, 1900.

7.42.2.4 OSCL_COND_IMPORT_REF NTPTime::NTPTime (const int32 seconds)

Construct an [NTPTime](#) from a int.

Parameters

seconds The int input represents the number of seconds since Jan. 1, 1900.

7.42.2.5 OSCL_COND_IMPORT_REF NTPTime::NTPTime (const TimeValue & *t*)

Construct a [NTPTime](#) instance from a [TimeValue](#) instance.

This constructor creates an [NTPTime](#) value representing the same absolute time as the [TimeValue](#) parameter.

Parameters

t A reference to a [TimeValue](#) object.

7.42.2.6 OSCL_COND_IMPORT_REF NTPTime::NTPTime (const uint64 *value*)

Construct a [NTPTime](#) instance from a uint64 value.

Parameters

value A 64 bit integer argument which is used as the ntp 32.32 fractional representation.

7.42.3 Member Function Documentation

7.42.3.1 OSCL_COND_IMPORT_REF uint32 NTPTime::get_lower32 () const

This method returns the lower 32 bits of the 32.32 representation.

7.42.3.2 OSCL_COND_IMPORT_REF uint32 NTPTime::get_middle32 () const

Grab the middle 32 bits of the 64 bit 32.32 representation.

7.42.3.3 OSCL_COND_IMPORT_REF uint32 NTPTime::get_upper32 () const

This method returns the upper 32 bits of the 32.32 representation.

7.42.3.4 OSCL_COND_IMPORT_REF uint64 NTPTime::get_value () const

This method returns the 32.32 ntp representation.

7.42.3.5 OSCL_COND_IMPORT_REF NTPTime& NTPTime::operator+= (uint64 *val*)

The += operator is used to add a 64 bit 32.32 value to an existing [NTPTime](#) value.

Parameters

val The 64 bit 32.32 value to add to this object's value.

7.42.3.6 OSCL_COND_IMPORT_REF NTPTime NTPTime::operator- (const NTPTime & *npt*) const

The - operator allows subtraction of one [NTPTime](#) value from another. This is useful to measure an interval.

Parameters

ntp A reference to the [NTPTime](#) object to be subtracted from this one.

7.42.3.7 OSCL_COND_IMPORT_REF NTPTime& NTPTime::operator= (uint64 newval)

The assignment operator for a 64 bit integer.

Parameters

newval A 64 bit value which represents the 32.32 fractional representation of the ntp time.

7.42.3.8 OSCL_COND_IMPORT_REF NTPTime& NTPTime::operator= (uint32 newval)

The assignment operator for a 32 bit integer.

Parameters

newval A 32 bit integer representing the upper 32 bits of the 32.32 NTP time (e.g. the number of whole seconds since Jan 1, 1900 UTC).

7.42.3.9 void NTPTime::set_from_system_time (const uint32 systemtime)

This method converts a 32-bit system time to NTP time.

This method sets the value of the [NTPTime](#) instance to the absolute time represented by the 32 bit input argument.

Parameters

systemtime This 32-bit value is interpreted as the number of seconds since the unix epoch Jan. 1 1970.

7.42.3.10 OSCL_IMPORT_REF int NTPTime::set_to_current_time ()

This method sets the 32.32 representation to the current system time value.

7.42.3.11 int32 NTPTime::to_system_time () const

This method converts the ntp time value to system time.

This method returns a 32 bit value representing the same absolute time as the NTP time value, but expressed as whole seconds since the unix epoch. The fractional part of the ntp value is discarded.

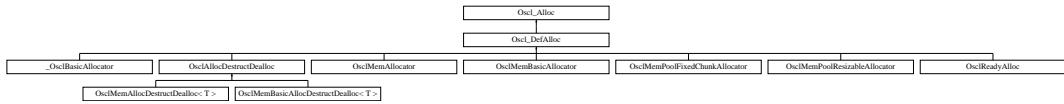
The documentation for this class was generated from the following file:

- [oscl_time.h](#)

7.43 Oscl_Alloc Class Reference

```
#include <oscl_defalloc.h>
```

Inheritance diagram for Oscl_Alloc:



Public Member Functions

- virtual [~Oscl_Alloc \(\)](#)
- virtual [OsclAny * allocate \(const uint32 size\)=0](#)
- virtual [OsclAny * allocate_fl \(const uint32 size, const char *file_name, const int line_num\)](#)

7.43.1 Constructor & Destructor Documentation

7.43.1.1 virtual Oscl_Alloc::~Oscl_Alloc () [inline, virtual]

7.43.2 Member Function Documentation

7.43.2.1 virtual OsclAny* Oscl_Alloc::allocate (const uint32 size) [pure virtual]

Implemented in [_OsclBasicAllocator](#), [Oscl_DefAlloc](#), [OsclMemAllocator](#), [OsclMemBasicAllocator](#), [OsclMemAllocDestructDealloc< T >](#), [OsclMemBasicAllocDestructDealloc< T >](#), [OsclMemPoolFixedChunkAllocator](#), [OsclMemPoolResizableAllocator](#), and [OsclReadyAlloc](#).

Referenced by [allocate_fl\(\)](#).

7.43.2.2 virtual OsclAny* Oscl_Alloc::allocate_fl (const uint32 size, const char *file_name, const int line_num) [inline, virtual]

Reimplemented in [Oscl_DefAlloc](#), and [OsclReadyAlloc](#).

References [allocate\(\)](#), and [OSCL_UNUSED_ARG](#).

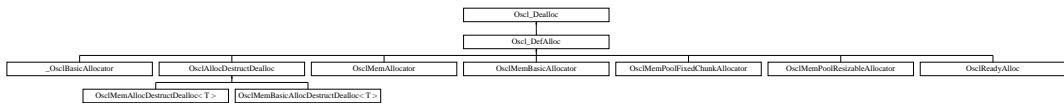
The documentation for this class was generated from the following file:

- [oscl_defalloc.h](#)

7.44 Oscl_Dealloc Class Reference

```
#include <oscl_defalloc.h>
```

Inheritance diagram for Oscl_Dealloc:



Public Member Functions

- virtual void [deallocate \(OsclAny *p\)=0](#)
- virtual [~Oscl_Dealloc \(\)](#)

7.44.1 Constructor & Destructor Documentation

7.44.1.1 virtual Oscl_Dealloc::~Oscl_Dealloc () [inline, virtual]

7.44.2 Member Function Documentation

7.44.2.1 virtual void Oscl_Dealloc::deallocate (OsclAny *p) [pure virtual]

Implemented in [_OsclBasicAllocator](#), [Oscl_DefAlloc](#), [OsclMemAllocator](#), [OsclMemBasicAllocator](#), [OsclMemAllocDestructDealloc< T >](#), [OsclMemBasicAllocDestructDealloc< T >](#), [OsclMemPoolFixedChunkAllocator](#), [OsclMemPoolResizableAllocator](#), and [OsclReadyAlloc](#).

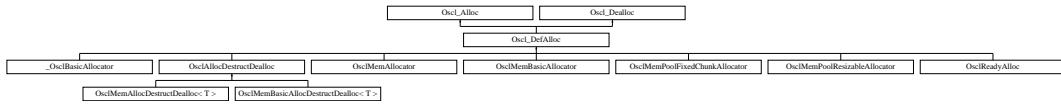
The documentation for this class was generated from the following file:

- [oscl_defalloc.h](#)

7.45 Oscl_DefAlloc Class Reference

```
#include <oscl_defalloc.h>
```

Inheritance diagram for Oscl_DefAlloc:



Public Member Functions

- virtual [OsclAny](#) * [allocate](#) (const uint32 size)=0
- virtual [OsclAny](#) * [allocate_fl](#) (const uint32 size, const char *file_name, const int line_num)
- virtual void [deallocate](#) ([OsclAny](#) *p)=0

7.45.1 Member Function Documentation

7.45.1.1 virtual [OsclAny](#)* [Oscl_DefAlloc::allocate](#) (const uint32 size) [pure virtual]

Implements [Oscl_Alloc](#).

Implemented in [_OsclBasicAllocator](#), [OsclMemAllocator](#), [OsclMemBasicAllocator](#), [OsclMemAllocDestructDealloc< T >](#), [OsclMemBasicAllocDestructDealloc< T >](#), [OsclMemPoolFixedChunkAllocator](#), [OsclMemPoolResizableAllocator](#), and [OsclReadyAlloc](#).

Referenced by [allocate_fl\(\)](#).

7.45.1.2 virtual [OsclAny](#)* [Oscl_DefAlloc::allocate_fl](#) (const uint32 size, const char *file_name, const int line_num) [inline, virtual]

Reimplemented from [Oscl_Alloc](#).

Reimplemented in [OsclReadyAlloc](#).

References [allocate\(\)](#), and [OSCL_UNUSED_ARG](#).

Referenced by [OsclMemBasicAllocDestructDealloc< T >](#)::[allocate\(\)](#), [OsclMemAllocDestructDealloc< T >](#)::[allocate\(\)](#), and [OsclMemAllocator](#)::[allocate\(\)](#).

7.45.1.3 virtual void [Oscl_DefAlloc::deallocate](#) ([OsclAny](#) *p) [pure virtual]

Implements [Oscl_Dealloc](#).

Implemented in [_OsclBasicAllocator](#), [OsclMemAllocator](#), [OsclMemBasicAllocator](#), [OsclMemAllocDestructDealloc< T >](#), [OsclMemBasicAllocDestructDealloc< T >](#), [OsclMemPoolFixedChunkAllocator](#), [OsclMemPoolResizableAllocator](#), and [OsclReadyAlloc](#).

Referenced by [OsclErrorAllocator](#)::[deallocate\(\)](#).

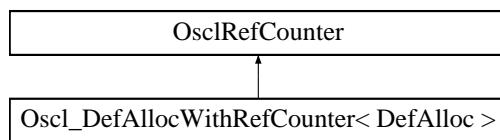
The documentation for this class was generated from the following file:

- [oscl_defalloc.h](#)

7.46 Oscl_DefAllocWithRefCounter< DefAlloc > Class Template Reference

```
#include <oscl_refcounter.h>
```

Inheritance diagram for Oscl_DefAllocWithRefCounter< DefAlloc >:



Public Member Functions

- void [Delete \(\)](#)
- void [addRef \(\)](#)
- void [removeRef \(\)](#)
- uint32 [getCount \(\)](#)

Static Public Member Functions

- static [Oscl_DefAllocWithRefCounter * New \(\)](#)

7.46.1 Detailed Description

template<class DefAlloc> class Oscl_DefAllocWithRefCounter< DefAlloc >

Implementation of an [Oscl_DefAlloc](#) class with a built-in ref counter.

7.46.2 Member Function Documentation

7.46.2.1 template<class DefAlloc> void Oscl_DefAllocWithRefCounter< DefAlloc >::addRef () [inline, virtual]

Add to the reference count

Implements [OsclRefCounter](#).

7.46.2.2 template<class DefAlloc> void Oscl_DefAllocWithRefCounter< DefAlloc >::Delete () [inline]

Delete object

References [Oscl_DefAllocWithRefCounter< DefAlloc >::removeRef\(\)](#).

7.46.2.3 template<class DefAlloc > uint32 Oscl_DefAllocWithRefCounter< DefAlloc >::getCount () [inline, virtual]

Gets the current number of references

Implements [OsclRefCounter](#).

7.46.2.4 template<class DefAlloc > static Oscl_DefAllocWithRefCounter* Oscl_DefAllocWithRefCounter< DefAlloc >::New () [inline, static]

Create object

7.46.2.5 template<class DefAlloc > void Oscl_DefAllocWithRefCounter< DefAlloc >::removeRef () [inline, virtual]

Delete from reference count

Implements [OsclRefCounter](#).

Referenced by [Oscl_DefAllocWithRefCounter< DefAlloc >::Delete\(\)](#).

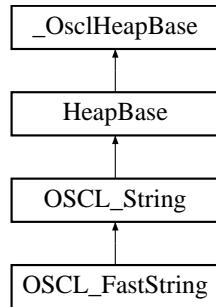
The documentation for this class was generated from the following file:

- [oscl_refcounter.h](#)

7.47 OSCL_FastString Class Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_FastString:



Public Types

- `typedef OSCL_String::chartype chartype`
- `typedef TOSCL_StringOp optype`
- `typedef OSCL_wString::chartype other_chartype`

Public Member Functions

- `OSCL_IMPORT_REF OSCL_FastString()`
- `OSCL_IMPORT_REF OSCL_FastString(const OSCL_FastString &src)`
- `OSCL_IMPORT_REF OSCL_FastString(const chartype *cstr)`
- `OSCL_IMPORT_REF OSCL_FastString(chartype *buf, uint32 maxlen)`
- `OSCL_IMPORT_REF ~OSCL_FastString()`
- `OSCL_IMPORT_REF uint32 get_size() const`
- `OSCL_IMPORT_REF uint32 get_maxsize() const`
- `OSCL_IMPORT_REF const chartype * get_cstr() const`
- `OSCL_IMPORT_REF chartype * get_str() const`
- `OSCL_IMPORT_REF OSCL_FastString & operator=(const OSCL_FastString &src)`
- `OSCL_IMPORT_REF OSCL_FastString & operator=(const chartype *cstr)`
- `OSCL_IMPORT_REF void set(chartype *cstr, uint32 maxlen)`
- `OSCL_IMPORT_REF void set(const other_chartype *buf, uint32 numofbyte, optype op)`
- `OSCL_IMPORT_REF void set_length()`

Friends

- `class OSCL_String`

7.47.1 Detailed Description

`OSCL_FastString` is a simple string class, compatible with regular character array strings.

This class does not allocate internal memory for the string but acts as a container for a user-defined buffer. This means no copying of the string is done and provides a faster way of manipulating strings. Depending on initialization, this container provides either read-only or read-write access to the string.

Implementation assumes the input string is null-terminated.

Parameters

C,: type of character.

7.47.2 Member Typedef Documentation

7.47.2.1 `typedef OSCL_String::chartype OSCL_FastString::chartype`

Reimplemented from [OSCL_String](#).

7.47.2.2 `typedef TOSCL_StringOp OSCL_FastString::optype`

7.47.2.3 `typedef OSCL_wString::chartype OSCL_FastString::other_chartype`

7.47.3 Constructor & Destructor Documentation

7.47.3.1 `OSCL_IMPORT_REF OSCL_FastString::OSCL_FastString()`

Default constructor.

7.47.3.2 `OSCL_IMPORT_REF OSCL_FastString::OSCL_FastString(const OSCL_FastString & src)`

Creates a fast string that contains a copy of the input string. The string inherits the writable-ness of the source string.

Parameters

src,: input string.

7.47.3.3 `OSCL_IMPORT_REF OSCL_FastString::OSCL_FastString(const chartype * cstr)`

Create the string and initialize it to contain the input string. The string is not writable.

Parameters

null-terminated string.

7.47.3.4 `OSCL_IMPORT_REF OSCL_FastString::OSCL_FastString(chartype * buf, uint32 maxlen)`

Create the string and initialize it to contain the input string. The string is writable.

Parameters

cp,: null-terminated string.

maxlen,: maximum size of storage at cp, not incl null terminator. If input string is not null-terminated, the function leaves.

7.47.3.5 OSCL_IMPORT_REF OSCL_FastString::~OSCL_FastString ()

7.47.4 Member Function Documentation

7.47.4.1 OSCL_IMPORT_REF const chartype* OSCL_FastString::get_cstr () const [virtual]

This function returns the C-style string for read access.

Implements [OSCL_String](#).

7.47.4.2 OSCL_IMPORT_REF uint32 OSCL_FastString::get_maxsize () const [virtual]

This function returns the maximum available storage size, not including null terminator. The maximum size may be larger than the current string size.

Implements [OSCL_String](#).

7.47.4.3 OSCL_IMPORT_REF uint32 OSCL_FastString::get_size () const [virtual]

Pure virtuals from [OSCL_String](#)

Implements [OSCL_String](#).

7.47.4.4 OSCL_IMPORT_REF chartype* OSCL_FastString::get_str () const [virtual]

This function returns the C-style string for write access. If the string is not writable it returns NULL.

Implements [OSCL_String](#).

7.47.4.5 OSCL_IMPORT_REF OSCL_FastString& OSCL_FastString::operator= (const chartype * *cstr*)

Assignment operator

Parameters

null-terminated string

Reimplemented from [OSCL_String](#).

7.47.4.6 OSCL_IMPORT_REF OSCL_FastString& OSCL_FastString::operator= (const OSCL_FastString & *src*)

Assignment operators

7.47.4.7 OSCL_IMPORT_REF void OSCL_FastString::set (const other_chartype * buf, uint32 numofbyte, optype op)

Set the contents of this string to a new string or character array, with conversion operation.

Parameters

buf,: string or character array.

numofbyte,: number of bytes available in the buffer. There must be enough space available for the converted string including its NULL terminator. The converted string may be smaller or larger than the original string.

op,: conversion operation to apply If numofbyte is not large enough for conversion, the function leaves. If input string is not null-terminated, the function leaves.

7.47.4.8 OSCL_IMPORT_REF void OSCL_FastString::set (chartype * cstr, uint32 maxlen)

This function can be used to reassign the string to a new writable string. If input string is not null-terminated, the function leaves.

7.47.4.9 OSCL_IMPORT_REF void OSCL_FastString::set_length ()

This function can be used to refresh the string size in case the contents of the string buffer have been modified since the container was created.

7.47.5 Friends And Related Function Documentation**7.47.5.1 friend class OSCL_String [friend]**

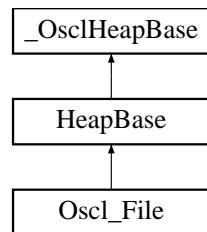
The documentation for this class was generated from the following file:

- [oscl_string_containers.h](#)

7.48 Oscl_File Class Reference

```
#include <oscl_file_io.h>
```

Inheritance diagram for Oscl_File:



Data Structures

- class [OsclCacheObserver](#)
- class [OsclFixedCacheParam](#)

Public Types

- enum `seek_type` { `SEEKSET`, `SEEKCUR`, `SEEKEND` }
- enum `mode_type` {

`MODE_READ` = 0x0001, `MODE_READWRITE` = 0x0002, `MODE_APPEND` = 0x0004, `MODE_BINARY` = 0x0008,

`MODE_TEXT` = 0x0010, `MODE_READ_PLUS` = 0x0020 }
- enum `TSymbianAccessMode` { `ESymbianAccessMode_Rfile` = 0, `ESymbianAccessMode_RfileBuf` = 1 }

Public Member Functions

- `OSCL_IMPORT_REF Oscl_File()`
- `OSCL_IMPORT_REF Oscl_File(uint32 aCacheSize)`
- `OSCL_IMPORT_REF Oscl_File(uint32 aCacheSize, OsclFileHandle *aFileHandle)`
- `OSCL_IMPORT_REF ~Oscl_File()`
- `OSCL_IMPORT_REF void SetPVCacheSize(uint32 aSize)`
- `void AddFixedCache(const OsclFixedCacheParam &aParam)`
- `void RemoveFixedCache(const TOsclFileOffset &aPos)`
- `void SetCacheObserver(OsclCacheObserver *aObs)`
- `OSCL_IMPORT_REF void SetNativeAccessMode(uint32 aMode)`
- `OSCL_IMPORT_REF void SetNativeBufferSize(int32 aSize)`
- `OSCL_IMPORT_REF void SetAsyncReadBufferSize(uint32 aSize)`
- `OSCL_IMPORT_REF int32 SetFileHandle(OsclFileHandle *aHandle)`
- `OSCL_IMPORT_REF int32 Open(const char *filename, uint32 mode, Oscl_FileServer &fileserv)`
- `OSCL_IMPORT_REF int32 Open(const oscl_wchar *filename, uint32 mode, Oscl_FileServer &fileserv)`
- `OSCL_IMPORT_REF uint32 Read(OsclAny *buffer, uint32 size, uint32 numelements)`
- `OSCL_IMPORT_REF uint32 Write(const OsclAny *buffer, uint32 size, uint32 numelements)`

- OSCL_IMPORT_REF int32 [Seek](#) (TOsclFileOffset offset, [seek_type](#) origin)
- OSCL_IMPORT_REF TOsclFileOffset [Tell](#) ()
- OSCL_IMPORT_REF int32 [Close](#) ()
- OSCL_IMPORT_REF int32 [Flush](#) ()
- OSCL_IMPORT_REF int32 [SetSize](#) (uint32 size)
- OSCL_IMPORT_REF int32 [EndOfFile](#) ()
- OSCL_IMPORT_REF int32 [GetError](#) ()
- [OsclHandle * Handle](#) ()
- OSCL_IMPORT_REF TOsclFileOffset [Size](#) ()
- OSCL_IMPORT_REF void [SetLoggingEnable](#) (bool aEnable)
- OSCL_IMPORT_REF void [SetSummaryStatsLoggingEnable](#) (bool aEnable)

Friends

- class [OsclFileCache](#)
- class [OsclFileCacheBuffer](#)
- class [asyncfilereadwrite_test](#)
- class [largeeasyasyncfilereadwrite_test](#)
- class [asyncfilereadcancel_test](#)

7.48.1 Member Enumeration Documentation

7.48.1.1 enum Oscl_File::mode_type

Enumerator:

MODE_READ Opens a file for reading. The file must exist.

MODE_READWRITE Opens the file for reading and writing. If the file exists, its contents will be overwritten unless APPEND mode is specified. If the file does not exist, it will be created.

MODE_APPEND Specifies all write operations to occur at the end of the file. The file pointer can be moved with the Seek command, but will always be moved to the end of the file for write commands.

MODE_BINARY Opens the file in 'binary' mode. This is the default.

MODE_TEXT Opens the file in 'text' mode. The default mode is 'binary'.

MODE_READ_PLUS Open a file for reading and writing. The file must exist. The default mode is 'binary'.

7.48.1.2 enum Oscl_File::seek_type

Enumerator:

SEEKSET Beginning of file

SEEKCUR Current position of file pointer

SEEKEND End of file

7.48.1.3 enum Oscl_File::TSymbianAccessMode

Defines mode options for SetNativeAccessMode on Symbian.

Enumerator:

ESymbianAccessMode_Rfile

ESymbianAccessMode_RfileBuf

7.48.2 Constructor & Destructor Documentation

7.48.2.1 OSCL_IMPORT_REF Oscl_File::Oscl_File()

Constructor

7.48.2.2 OSCL_IMPORT_REF Oscl_File::Oscl_File (uint32 *aCacheSize*)

Deprecated Constructor, present for back-compatibility.

Parameters

aCacheSize,: sets native buffer size, and when pv cache is enabled, also sets pv cache size.

7.48.2.3 OSCL_IMPORT_REF Oscl_File::Oscl_File (uint32 *aCacheSize*, OsclFileHandle * *aFileHandle*)

Deprecated Constructor, present for back-compatibility.

Parameters

aCacheSize,: sets native buffer size, and when pv cache is enabled, also sets pv cache size.

aFileHandle,: open file handle.

7.48.2.4 OSCL_IMPORT_REF Oscl_File::~Oscl_File()

Destructor

7.48.3 Member Function Documentation

7.48.3.1 void Oscl_File::AddFixedCache (const OsclFixedCacheParam & *aParam*) [inline]

AddFixedCache adds a fixed cache. The fixed cache will be used on the next opportunity. The fixed cache must not overlap with any other fixed cache.

Parameters

aParam,: Cache location and size.

References Oscl_Vector< T, Alloc >::push_back().

7.48.3.2 OSCL_IMPORT_REF int32 Oscl_File::Close ()

The File Close operation Closes the file after flushing any remaining data in the buffers.

Note: If the file object was opened with an external file handle, then Close will simply flush the file. The file will remain open.

Returns

returns 0 if successful, and a non-zero value otherwise

7.48.3.3 OSCL_IMPORT_REF int32 Oscl_File::EndOfFile ()

The File EOF(end of file) operation returns a nonzero value after the first read operation that attempts to read past the end of the file

Returns

7.48.3.4 OSCL_IMPORT_REF int32 Oscl_File::Flush ()

The File Flush operation On an output stream OSCL_FileFlush causes any buffered but unwritten data to be written to the file. Flush is meant for writable files. The behavior when calling it on read-only files is OS-dependent.

Returns

returns 0 if successful, and a non-zero value otherwise

7.48.3.5 OSCL_IMPORT_REF int32 Oscl_File::GetError ()

The File Error operation If no error has occurred on stream, returns 0. Otherwise, it returns a nonzero value

Returns

7.48.3.6 OsclFileHandle* Oscl_File::Handle () [inline]

Retrieve the file handle.

Returns

file handle

7.48.3.7 OSCL_IMPORT_REF int32 Oscl_File::Open (const oscl_wchar *filename, uint32 mode, Oscl_FileServer &fileserv)

Opens a file.

Note: when an external file handle is used, Open will attach to the file handle and initialize cacheing features, but will not do a native file open.

Parameters

filename name of file to open (Unicode)

mode combination of open mode flags

fileserv fileserv to use

Returns

returns 0 if successful and a non-zero value otherwise

7.48.3.8 OSCL_IMPORT_REF int32 Oscl_File::Open (const char *filename, uint32 mode, Oscl_FileServer &fileserv)

Opens a file.

Note: when an external file handle is used, Open will attach to the file handle and initialize cacheing features, but will not do a native file open.

Parameters

filename name of file to open (Utf8)

mode combination of open mode flags

fileserv fileserv to use

Returns

returns 0 if successful and a non-zero value otherwise

7.48.3.9 OSCL_IMPORT_REF uint32 Oscl_File::Read (OsclAny *buffer, uint32 size, uint32 numelements)

The File Read operation Reads from the file into the buffer a maximum of 'numelements' of size 'size'.

Parameters

buffer pointer to buffer of type void

size element size in bytes

numelements max number of elements to read

Returns

returns the number of full elements actually read, which may be less than count if an error occurs or if the end of the file is encountered before reaching count. Use the CheckEndOfFile or GetError function to distinguish a read error from an end-of-file condition.

7.48.3.10 void Oscl_File::RemoveFixedCache (const TOsclFileOffset & *aPos*) [inline]

RemoveFixedCache removes a fixed cache.

Parameters

aPos,: Cache location and size.

References Oscl_Vector< T, Alloc >::push_back().

7.48.3.11 OSCL_IMPORT_REF int32 Oscl_File::Seek (TOsclFileOffset *offset*, seek_type *origin*)

The File Seek operation Sets the position for file pointer

Parameters

offset offset from the specified origin.

origin starting point

Returns

returns 0 on success, and a non-zero value otherwise

7.48.3.12 OSCL_IMPORT_REF void Oscl_File::SetAsyncReadBufferSize (uint32 *aSize*)

SetAsyncReadBufferSize configures the asynchronous background read function. May not be available on all platforms.

This should be called before opening the file. If used when the file is open, the option will not take effect until the next Open.

Note: if asynchronous read is not available on the platform, this call will have no effect.

Parameters

aSize,: buffer size in bytes. Zero disables the feature.

7.48.3.13 void Oscl_File::SetCacheObserver (OsclCacheObserver * *aObs*) [inline]

7.48.3.14 OSCL_IMPORT_REF int32 Oscl_File::SetFileHandle (OsclFileHandle * *aHandle*)

SetFileHandle adds an open file handle to the [Oscl_File](#) object. The [Oscl_File](#) object will use that handle to access the file.

This call is not available when the [Oscl_File](#) object is already open.

Note: This feature is used in Symbian with the MMF framework. The MMF framework provides an open RFile handle to access content. When using RFileBuf access mode with an RFile handle, the RFileBuf will be attached to the open RFile handle.

To use the external file handle, the caller starts with a native file handle to an open file. The caller must wrap the native file handle in an [OsclFileHandle](#) object, pass the [OsclFileHandle](#) pointer to SetFileHandle, call [Oscl_File::Open](#), then proceed to use the [Oscl_File](#) object, finally calling [Oscl_File::Close](#). In this usage mode, [Oscl_File::Open](#) and [Oscl_File::Close](#) do not actually call native file open and close. It is assumed that the caller will close the original native file handle after usage is complete.

Parameters

aHandle,: container for an open file handle.

Returns

returns 0 if successful, non-zero if error.

7.48.3.15 OSCL_IMPORT_REF void Oscl_File::SetLoggingEnable (bool *aEnable*)

SetLoggingEnable configures the [PVLogger](#) output for this file. This will enable full logging of each API entry and exit using the logger object "Oscl_File", plus full logging of native operation entry & exit using logger object "OsclNativeFile".

Parameters

aEnable,: true to enable, false to disable logging.

7.48.3.16 OSCL_IMPORT_REF void Oscl_File::SetNativeAccessMode (uint32 *aMode*)

SetNativeAccessMode allows switching between different native file access modes, when available.

Note: for Symbian, use the TSymbianAccessMode values to choose the mode. If multiple access modes are not available on the platform, this call will have no effect.

Parameters

aMode,: access mode.

7.48.3.17 OSCL_IMPORT_REF void Oscl_File::SetNativeBufferSize (int32 *aSize*)

SetNativeBufferSize configures the native file buffering feature, when available.

This should be called before opening the file. If used when the file is open, the option will not take effect until the next Open.

Note: For Symbian, this sets the RFileBuf cache size. If native buffering is not available on the platform, this call will have no effect.

Parameters

aSize,: native buffer size in bytes. Zero disables the feature.

7.48.3.18 OSCL_IMPORT_REF void Oscl_File::SetPVCacheSize (uint32 *aSize*)

SetPVCacheSize configures the read/write cache.

This should be called before opening the file. If used when the file is open, the option will not take effect until the next Open.

Parameters

aSize,: cache size in bytes. Zero disables the cache.

7.48.3.19 OSCL_IMPORT_REF int32 Oscl_File::SetSize (uint32 *size*)

The File SetSize operation If the file has been opened for writing this will set the size of the file. The file pointer position is undefined after calling SetSize. If file size is increased the contents of the new section are undefined.

Returns

returns 0 if successful, and a non-zero value otherwise

7.48.3.20 OSCL_IMPORT_REF void Oscl_File::SetSummaryStatsLoggingEnable (bool *aEnable*)

SetSummaryStatsLoggingEnable configures the [PVLogger](#) output for this file. This will enable summary statistics logging only, using the logger object "OsclFileStats".

Parameters

aEnable,: true to enable, false to disable stats logging.

7.48.3.21 OSCL_IMPORT_REF TOsclFileOffset Oscl_File::Size ()

Get the file size in bytes.

Returns

- The size of the file, or -1 on error.

7.48.3.22 OSCL_IMPORT_REF TOsclFileOffset Oscl_File::Tell ()

The File Tell operation Returns the current file position for file specified by fp

7.48.3.23 OSCL_IMPORT_REF uint32 Oscl_File::Write (const OsclAny * *buffer*, uint32 *size*, uint32 *numelements*)

The File Write operation Writes from the buffer 'numelements' objects of size 'size'

Parameters

buffer pointer to buffer of type void

size element size in bytes

numelements number of elements to write

Returns

The number of elements written

7.48.4 Friends And Related Function Documentation

7.48.4.1 friend class `asyncfilereadcancel_test` [friend]

7.48.4.2 friend class `asyncfilereadwrite_test` [friend]

7.48.4.3 friend class `largeasyncfilereadwrite_test` [friend]

7.48.4.4 friend class `OsclFileCache` [friend]

7.48.4.5 friend class `OsclFileCacheBuffer` [friend]

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

- [oscl_file_io.h](#)

7.49 Oscl_FileFind Class Reference

```
#include <oscl_file_find.h>
```

Public Types

- enum `error_type` {
 `E_OK` = 0, `E_INVALID_STATE`, `E_INVALID_ARG`, `E_PATH_TOO_LONG`,
`E_PATH_NOT_FOUND`, `E_NO_MATCH`, `E_BUFFER_TOO_SMALL`, `E_NOT_IMPLEMENTED`,
`E_MEMORY_ERROR`, `E_OTHER` }
- enum `element_type` { `FILE_TYPE` = 0, `DIR_TYPE`, `INVALID_TYPE` }

Public Member Functions

- OSCL_IMPORT_REF const char * `FindFirst` (const char *directory, const char *pattern, char *buf, uint32 buflen)
- OSCL_IMPORT_REF const `oscl_wchar` * `FindFirst` (const `oscl_wchar` *directory, const `oscl_wchar` *pattern, `oscl_wchar` *buf, uint32 buflen)
- OSCL_IMPORT_REF char * `FindNext` (char *buf, uint32 buflen)
- OSCL_IMPORT_REF `oscl_wchar` * `FindNext` (`oscl_wchar` *buf, uint32 buflen)
- OSCL_IMPORT_REF void `Close` ()
- OSCL_IMPORT_REF `element_type` `GetElementType` ()
- OSCL_IMPORT_REF `error_type` `GetLastError` ()
- OSCL_IMPORT_REF `Oscl_FileFind` ()
- OSCL_IMPORT_REF ~`Oscl_FileFind` ()

7.49.1 Detailed Description

`Oscl_FileFind` class defines the generic way of finding filesystem elements that match a pattern within a directory

7.49.2 Member Enumeration Documentation

7.49.2.1 enum Oscl_FileFind::element_type

Enumerator:

FILE_TYPE
DIR_TYPE
INVALID_TYPE

7.49.2.2 enum Oscl_FileFind::error_type

Enumerator:

E_OK

E_INVALID_STATE
E_INVALID_ARG
E_PATH_TOO_LONG
E_PATH_NOT_FOUND
E_NO_MATCH
E_BUFFER_TOO_SMALL
E_NOT_IMPLEMENTED
E_MEMORY_ERROR
E_OTHER

7.49.3 Constructor & Destructor Documentation

7.49.3.1 OSCL_IMPORT_REF Oscl_FileFind::Oscl_FileFind ()

constructor.

Returns

none

7.49.3.2 OSCL_IMPORT_REF Oscl_FileFind::~Oscl_FileFind ()

destructor. will deallocate open handles if necessary

Returns

none

7.49.4 Member Function Documentation

7.49.4.1 OSCL_IMPORT_REF void Oscl_FileFind::Close ()

closes the handle to directory.

Returns

none

7.49.4.2 OSCL_IMPORT_REF const oscl_wchar* Oscl_FileFind::FindFirst (const oscl_wchar * directory, const oscl_wchar * pattern, oscl_wchar * buf, uint32 buflen)

Opens a directory for reading.

Parameters

directory directory to search (utf16).

pattern wildcard pattern filter (utf16). passing NULL, results in a universal match.

buf buffer for returned pathname (utf16).

buflen size in wide characters of buf. If buf is not large enough to hold the returned string, NULL is returned, and GetLastError is set to E_BUFFER_TOO_SMALL.

Returns

returns a pointer to buffer supplied, which contains the pathname of the first found element, or NULL otherwise. On a NULL return value, [GetLastError\(\)](#) returns a more detailed error.

7.49.4.3 OSCL_IMPORT_REF const char* Oscl_FileFind::FindFirst (const char * directory, const char * pattern, char * buf, uint32 buflen)

Finds first element matching the pattern.

Parameters

directory directory to search (utf8).

pattern wildcard pattern filter (utf8). passing NULL, results in a universal match.

buf buffer for returned pathname (utf8).

buflen size in wide characters of buf. If buf is not large enough to hold the returned string, NULL is returned, and GetLastError is set to E_BUFFER_TOO_SMALL.

Returns

returns a pointer to buffer supplied, which contains the pathname of the first found element, or NULL otherwise. On a NULL return value, [GetLastError\(\)](#) returns a more detailed error.

7.49.4.4 OSCL_IMPORT_REF oscl_wchar* Oscl_FileFind::FindNext (oscl_wchar * buf, uint32 buflen)

Reads the next element in a directory. Note: the pointer returned by this function is not persistent and should be stored. Its scope is limited to the lifetime of the class.

Parameters

buf buffer to hold directory name(utf16)

buflen size in wide characters of buf. If buf is not large enough to hold the returned string, NULL is returned, and GetLastError is set to E_BUFFER_TOO_SMALL.

Returns

returns a pointer to buffer supplied, which contains the pathname of the next found element, or NULL otherwise. On a NULL return value, [GetLastError\(\)](#) returns a more detailed error.

7.49.4.5 OSCL_IMPORT_REF char* Oscl_FileFind::FindNext (char * buf, uint32 buflen)

Reads the next element in the directory. Note: the pointer returned by this function is not persistent and should be stored. Its scope is limited to the lifetime of the class.

Parameters

buf buffer to hold directory name(utf8)

buflen size in wide characters of buf. If buf is not large enough to hold the returned string, NULL is returned, and GetLastError is set to E_BUFFER_TOO_SMALL.

Returns

returns a pointer to buffer supplied, which contains the pathname of the next found element, or NULL otherwise. On a NULL return value, [GetLastError\(\)](#) returns a more detailed error.

7.49.4.6 OSCL_IMPORT_REF element_type Oscl_FileFind::GetElementType ()

Returns the element type for the last element returned

Returns

see enumeration above for more info.

7.49.4.7 OSCL_IMPORT_REF error_type Oscl_FileFind::GetLastError ()

Returns the error code for the last operation.

Returns

see enumeration above for more info.

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

- [oscl_file_find.h](#)

7.50 Oscl_FileServer Class Reference

```
#include <oscl_file_server.h>
```

Public Member Functions

- OSCL_IMPORT_REF [Oscl_FileServer \(\)](#)
- OSCL_IMPORT_REF [~Oscl_FileServer \(\)](#)
- OSCL_IMPORT_REF int32 [Connect \(bool aShareSession=false\)](#)
- OSCL_IMPORT_REF int32 [Close \(\)](#)
- OSCL_IMPORT_REF int32 [Oscl_DeleteFile \(const char *filename\)](#)
- OSCL_IMPORT_REF int32 [Oscl_DeleteFile \(const oscl_wchar *filename\)](#)

Friends

- class [Oscl_File](#)
- class [OsclNativeFile](#)

7.50.1 Constructor & Destructor Documentation

7.50.1.1 OSCL_IMPORT_REF Oscl_FileServer::Oscl_FileServer ()

Constructor

7.50.1.2 OSCL_IMPORT_REF Oscl_FileServer::~Oscl_FileServer ()

Destructor

7.50.2 Member Function Documentation

7.50.2.1 OSCL_IMPORT_REF int32 Oscl_FileServer::Close ()

Closes a file server.

Returns

returns 0 on success and a non-zero value otherwise

7.50.2.2 OSCL_IMPORT_REF int32 Oscl_FileServer::Connect (bool *aShareSession = false*)

Connects the server. This must be called before a file server can be used.

Returns

returns 0 on success and a non-zero value otherwise

**7.50.2.3 OSCL_IMPORT_REF int32 Oscl_FileServer::Oscl_DeleteFile (const oscl_wchar *
filename)**

Deletes a file from the filesystem

Parameters

filename name of the file to delete (Unicode)

Returns

returns 0 if successful, and a non-zero value otherwise.

7.50.2.4 OSCL_IMPORT_REF int32 Oscl_FileServer::Oscl_DeleteFile (const char **filename*)

Deletes a file from the filesystem *

Parameters

filename name of the file to delete (Utf8)

Returns

returns 0 if successful, and a non-zero value otherwise.

7.50.3 Friends And Related Function Documentation**7.50.3.1 friend class Oscl_File [friend]****7.50.3.2 friend class OsclNativeFile [friend]**

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

- [oscl_file_server.h](#)

7.51 oscl_fsstat Struct Reference

```
#include <oscl_file_dir_utils.h>
```

Data Fields

- `uint64 freebytes`
- `uint64 totalbytes`

7.51.1 Field Documentation

7.51.1.1 `uint64 oscl_fsstat::freebytes`

7.51.1.2 `uint64 oscl_fsstat::totalbytes`

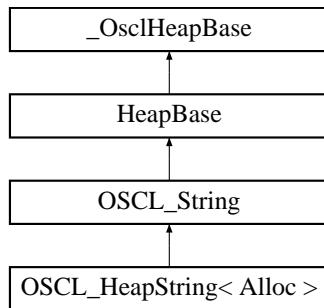
The documentation for this struct was generated from the following file:

- [oscl_file_dir_utils.h](#)

7.52 OSCL_HeapString< Alloc > Class Template Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_HeapString< Alloc >:



Public Types

- `typedef OSCL_String::chartype chartype`
- `typedef TOSCL_StringOp optype`
- `typedef OSCL_wString::chartype other_chartype`

Public Member Functions

- `OSCL_HeapString()`
- `OSCL_HeapString(const OSCL_HeapString &src)`
- `OSCL_HeapString(const OSCL_String &src)`
- `OSCL_HeapString(const chartype *cstr)`
- `OSCL_HeapString(const chartype *buf, uint32 length)`
- `~OSCL_HeapString()`
- `uint32 get_size() const`
- `uint32 get_maxsize() const`
- `const chartype * get_cstr() const`
- `chartype * get_str() const`
- `OSCL_HeapString & operator=(const OSCL_HeapString &src)`
- `OSCL_HeapString & operator=(const OSCL_String &src)`
- `OSCL_HeapString & operator=(const chartype *cstr)`
- `void set(const chartype *buf, uint32 length)`
- `void set(const other_chartype *buf, optype op)`
- `void set(const other_chartype *buf, uint32 length, optype op)`

Friends

- `class OSCL_String`

7.52.1 Detailed Description

template<class Alloc> class OSCL_HeapString< Alloc >

[OSCL_HeapString](#) is a simple string class, compatible with regular character array strings.

The string array is variable length, is allocated from the heap, and is modifiable. A copy-on-write mechanism is used to minimize unnecessary copying when multiple instances of a string are created for reading. Allocated memory is automatically freed by the class destructor when the last string referencing the memory is destroyed.

The class HAS NO thread synchronization built-in, so it is NOT MT-SAFE. External locks should be used if the class is to be shared across threads.

Parameters

Alloc,: memory allocator, derived from [Oscl_DefAlloc](#).

7.52.2 Member Typedef Documentation

7.52.2.1 template<class Alloc> typedef OSCL_String::chartype OSCL_HeapString< Alloc >::chartype

Reimplemented from [OSCL_String](#).

7.52.2.2 template<class Alloc> typedef TOSCL_StringOp OSCL_HeapString< Alloc >::optype

7.52.2.3 template<class Alloc> typedef OSCL_wString::chartype OSCL_HeapString< Alloc >::other_chartype

7.52.3 Friends And Related Function Documentation

7.52.3.1 template<class Alloc> friend class OSCL_String [friend]

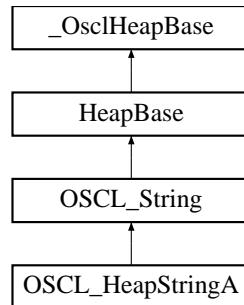
The documentation for this class was generated from the following file:

- [oscl_string_containers.h](#)

7.53 OSCL_HeapStringA Class Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_HeapStringA:



Public Types

- `typedef OSCL_String::chartype chartype`
- `typedef TOSCL_StringOp optype`
- `typedef OSCL_wString::chartype other_chartype`

Public Member Functions

- `OSCL_IMPORT_REF OSCL_HeapStringA ()`
- `OSCL_IMPORT_REF OSCL_HeapStringA (Oscl_DefAlloc *alloc, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_HeapStringA (const OSCL_HeapStringA &src)`
- `OSCL_IMPORT_REF OSCL_HeapStringA (const OSCL_HeapStringA &src, Oscl_DefAlloc *alloc, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_HeapStringA (const OSCL_String &src, Oscl_DefAlloc *alloc=NULL, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_HeapStringA (const chartype *cstr, Oscl_DefAlloc *alloc=NULL, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_HeapStringA (const chartype *buf, uint32 length, Oscl_DefAlloc *alloc=NULL, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF ~OSCL_HeapStringA ()`
- `OSCL_IMPORT_REF uint32 get_size () const`
- `OSCL_IMPORT_REF uint32 get_maxsize () const`
- `OSCL_IMPORT_REF const chartype * get_cstr () const`
- `OSCL_IMPORT_REF chartype * get_str () const`
- `OSCL_IMPORT_REF OSCL_HeapStringA & operator= (const OSCL_HeapStringA &src)`
- `OSCL_IMPORT_REF OSCL_HeapStringA & operator= (const OSCL_String &src)`
- `OSCL_IMPORT_REF OSCL_HeapStringA & operator= (const chartype *cstr)`
- `OSCL_IMPORT_REF void set (const chartype *buf, uint32 length)`
- `OSCL_IMPORT_REF void set (const other_chartype *buf, optype op)`
- `OSCL_IMPORT_REF void set (const other_chartype *buf, uint32 length, optype op)`

Friends

- `class OSCL_String`

7.53.1 Detailed Description

`OSCL_HeapStringA` is a simple string class, compatible with regular character array strings. It is similar to `OSCL_HeapString`, except that the allocator is passed at run-time instead of compile-time. The allocator pointer is passed in the constructor, and may be a reference-counted object. If the allocator is not a reference-counted object then it must persist over the lifetime of all `OSCL_HeapStringA` objects that use it. If no allocator is provided, then an `OsclMemAllocator` will be used.

The string array is variable length, is allocated from the heap, and is modifiable. A copy-on-write mechanism is used to minimize unnecessary copying when multiple instances of a string are created for reading. Allocated memory is automatically freed by the class destructor when the last string referencing the memory is destroyed.

The class HAS NO thread synchronization built-in, so it is NOT MT-SAFE. External locks should be used if the class is to be shared across threads.

7.53.2 Member Typedef Documentation

7.53.2.1 `typedef OSCL_String::chartype OSCL_HeapStringA::chartype`

Reimplemented from `OSCL_String`.

7.53.2.2 `typedef TOSCL_StringOp OSCL_HeapStringA::optype`

7.53.2.3 `typedef OSCL_wString::chartype OSCL_HeapStringA::other_chartype`

7.53.3 Constructor & Destructor Documentation

7.53.3.1 `OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA()`

The default constructor creates an empty string.

Parameters

(optional) allocator or reference-counted allocator.

(optional) reference counter associated with allocator object. If no allocator is provided, this object will use an `OsclMemAllocator`.

7.53.3.2 `OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA(Oscl_DefAlloc *alloc, OsclRefCounter *ref = NULL)`

7.53.3.3 `OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA(const OSCL_HeapStringA & src)`

Creates a heap string that contains a copy of the input string.

Parameters

`src`: input string.

(optional) allocator or reference-counted allocator.

(optional) reference counter associated with allocator object. If no allocator is provided, this object will use an `OsclMemAllocator`.

- 7.53.3.4 **OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA (const OSCL_HeapStringA & *src*, Oscl_DefAlloc * *alloc*, OsclRefCounter * *ref* = NULL)**
- 7.53.3.5 **OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA (const OSCL_String & *src*, Oscl_DefAlloc * *alloc* = NULL, OsclRefCounter * *ref* = NULL)**
- 7.53.3.6 **OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA (const chartype * *cstr*, Oscl_DefAlloc * *alloc* = NULL, OsclRefCounter * *ref* = NULL)**

Creates a heap string that contains a copy of the input string.

Parameters

cp,: null-terminated string.
(optional) allocator or reference-counted allocator.
(optional) reference counter associated with allocator object. If no allocator is provided, this object will use an [OsclMemAllocator](#).

- 7.53.3.7 **OSCL_IMPORT_REF OSCL_HeapStringA::OSCL_HeapStringA (const chartype * *buf*, uint32 *length*, Oscl_DefAlloc * *alloc* = NULL, OsclRefCounter * *ref* = NULL)**

Creates a heap string that contains a copy of the input string or character array.

Parameters

src,: character array, not necessarily null-terminated.
length,: number of characters to copy.
(optional) allocator or reference-counted allocator.
(optional) reference counter associated with allocator object. If no allocator is provided, this object will use an [OsclMemAllocator](#).

- 7.53.3.8 **OSCL_IMPORT_REF OSCL_HeapStringA::~OSCL_HeapStringA ()**

7.53.4 Member Function Documentation

- 7.53.4.1 **OSCL_IMPORT_REF const chartype* OSCL_HeapStringA::get_cstr () const [virtual]**

This function returns the C-style string for read access.

Implements [OSCL_String](#).

- 7.53.4.2 **OSCL_IMPORT_REF uint32 OSCL_HeapStringA::get_maxsize () const [virtual]**

This function returns the maximum available storage size, not including null terminator. The maximum size may be larger than the current string size.

Implements [OSCL_String](#).

7.53.4.3 OSCL_IMPORT_REF uint32 OSCL_HeapStringA::get_size () const [virtual]

Pure virtuals from [OSCL_String](#)

Implements [OSCL_String](#).

7.53.4.4 OSCL_IMPORT_REF chartype* OSCL_HeapStringA::get_str () const [virtual]

This function returns the C-style string for write access. If the string is not writable it returns NULL.

Implements [OSCL_String](#).

7.53.4.5 OSCL_IMPORT_REF OSCL_HeapStringA& OSCL_HeapStringA::operator= (const chartype * *cstr*)

Assignment operator

Parameters

null-terminated string

Reimplemented from [OSCL_String](#).

7.53.4.6 OSCL_IMPORT_REF OSCL_HeapStringA& OSCL_HeapStringA::operator= (const OSCL_String & *src*)

Assignment operator

Reimplemented from [OSCL_String](#).

7.53.4.7 OSCL_IMPORT_REF OSCL_HeapStringA& OSCL_HeapStringA::operator= (const OSCL_HeapStringA & *src*)

Assignment operators

7.53.4.8 OSCL_IMPORT_REF void OSCL_HeapStringA::set (const other_chartype * *buf*, uint32 *length*, optype *op*)

Set the contents of this string to a new string or character array, with conversion operation.

Parameters

buf,: string or character array.

length,: number of characters to copy.

op,: conversion operation to apply

7.53.4.9 OSCL_IMPORT_REF void OSCL_HeapStringA::set (const other_chartype * *buf*, optype *op*)

Set the contents of this string to a new string, with conversion operation.

Parameters

buf,: NULL-terminated wide string.

op,: conversion operation to apply

7.53.4.10 OSCL_IMPORT_REF void OSCL_HeapStringA::set (const chartype * *buf*, uint32 *length*)

Set the contents of this string to a new string or character array.

Parameters

buf,: string or character array.

length,: number of characters to copy.

7.53.5 Friends And Related Function Documentation**7.53.5.1 friend class OSCL_String [friend]**

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

- [oscl_string_containers.h](#)

7.54 Oscl_Int64_Utils Class Reference

The [Oscl_Int64_Utils](#) class provides a wrapper for commonly used int64/uint64 operations.

```
#include <oscl_int64_utils.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF void [set_int64](#) (int64 &input_value, const int32 upper, const uint32 lower)
- static OSCL_IMPORT_REF int32 [get_int64_upper32](#) (const int64 &input_value)
- static OSCL_IMPORT_REF uint32 [get_int64_lower32](#) (const int64 &input_value)
- static OSCL_IMPORT_REF uint32 [get_int64_middle32](#) (const int64 &input_value)
- static OSCL_IMPORT_REF void [set_uint64](#) (uint64 &input_value, const uint32 upper, const uint32 lower)
- static OSCL_IMPORT_REF uint32 [get_uint64_upper32](#) (const uint64 &input_value)
- static OSCL_IMPORT_REF uint32 [get_uint64_lower32](#) (const uint64 &input_value)
- static OSCL_IMPORT_REF uint32 [get_uint64_middle32](#) (const uint64 &input_value)

7.54.1 Detailed Description

The [Oscl_Int64_Utils](#) class provides a wrapper for commonly used int64/uint64 operations. The [Oscl_Int64_Utils](#) class:

Provides a wrapper for commonly used operations to mask the differences between OSes that have an int64/uint64 class instead of a 64-bit integer.

7.54.2 Member Function Documentation

- 7.54.2.1 static OSCL_IMPORT_REF uint32 Oscl_Int64_Utils::get_int64_lower32 (const int64 & *input_value*) [static]
- 7.54.2.2 static OSCL_IMPORT_REF uint32 Oscl_Int64_Utils::get_int64_middle32 (const int64 & *input_value*) [static]
- 7.54.2.3 static OSCL_IMPORT_REF int32 Oscl_Int64_Utils::get_int64_upper32 (const int64 & *input_value*) [static]
- 7.54.2.4 static OSCL_IMPORT_REF uint32 Oscl_Int64_Utils::get_uint64_lower32 (const uint64 & *input_value*) [static]
- 7.54.2.5 static OSCL_IMPORT_REF uint32 Oscl_Int64_Utils::get_uint64_middle32 (const uint64 & *input_value*) [static]
- 7.54.2.6 static OSCL_IMPORT_REF uint32 Oscl_Int64_Utils::get_uint64_upper32 (const uint64 & *input_value*) [static]
- 7.54.2.7 static OSCL_IMPORT_REF void Oscl_Int64_Utils::set_int64 (int64 & *input_value*, const int32 *upper*, const uint32 *lower*) [static]
- 7.54.2.8 static OSCL_IMPORT_REF void Oscl_Int64_Utils::set_uint64 (uint64 & *input_value*, const uint32 *upper*, const uint32 *lower*) [static]

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

- [oscl_int64_utils.h](#)

7.55 Oscl_Less< T > Struct Template Reference

```
#include <oscl_map.h>
```

Public Member Functions

- bool [operator\(\)](#) (const T &x, const T &y) const

```
template<class T> struct Oscl_Less< T >
```

7.55.1 Member Function Documentation

7.55.1.1 template<class T > bool Oscl_Less< T >::operator() (const T & x, const T & y) const [inline]

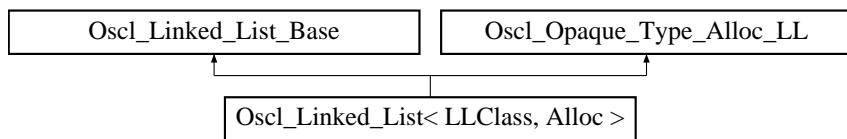
The documentation for this struct was generated from the following file:

- [oscl_map.h](#)

7.56 Oscl_Linked_List< LLClass, Alloc > Class Template Reference

```
#include <oscl_linked_list.h>
```

Inheritance diagram for Oscl_Linked_List< LLClass, Alloc >:



Public Member Functions

- [Oscl_Linked_List \(\)](#)
- [~Oscl_Linked_List \(\)](#)
- void [clear \(\)](#)
- int32 [dequeue_element \(LLClass &element\)](#)
- int32 [get_first \(LLClass &ele\)](#)
- int32 [get_next \(LLClass &ele\)](#)
- int32 [check_list \(\)](#)
- int32 [get_num_elements \(\)](#)
- int32 [add_element \(LLClass &new_element\)](#)
- int32 [add_to_front \(const LLClass &new_element\)](#)
- int32 [insert_element \(const LLClass &new_element, int index\)](#)
- int32 [get_element \(int32 index, LLClass &element\)](#)
- int32 [remove_element \(const LLClass &data_to_remove\)](#)
- int32 [get_index \(const LLClass &data\)](#)
- int32 [remove_element \(const int32 index_to_remove\)](#)
- int32 [move_to_end \(const LLClass &data_to_move\)](#)
- int32 [move_to_front \(const LLClass &data_to_move\)](#)

7.56.1 Detailed Description

template<class LLClass, class Alloc> class Oscl_Linked_List< LLClass, Alloc >

Oscl Linked List Class

7.56.2 Constructor & Destructor Documentation

7.56.2.1 template<class LLClass , class Alloc > Oscl_Linked_List< LLClass, Alloc >::Oscl_Linked_List () [inline]

Initialized the protected variables of list.

References Oscl_Linked_List_Base::construct(), and Oscl_Linked_List_Base::sizeof_T.

7.56.2.2 template<class LLClass , class Alloc > Oscl_Linked_List< LLClass, Alloc >::~Oscl_Linked_List () [inline]

The destructor.

References Oscl_Linked_List_Base::destroy().

7.56.3 Member Function Documentation

7.56.3.1 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::add_element (LLClass & *new_element*) [inline]

Adds new element to the list.if list is already there then it adds element at end of list otherwise it create the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

7.56.3.2 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::add_to_front (const LLClass & *new_element*) [inline]

Adds new element at the start of the list.if list is already exist then it adds element at start of list otherwise it create the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

7.56.3.3 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::check_list () [inline]

Debug routine: Checks the list for elements.

Returns

32-bit integer, if node count is equal to number of node added to the list then returns 1 otherwise returns 0.

Reimplemented from [Oscl_Linked_List_Base](#).

7.56.3.4 template<class LLClass , class Alloc > void Oscl_Linked_List< LLClass, Alloc >::clear () [inline]

References Oscl_Linked_List_Base::destroy().

7.56.3.5 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::dequeue_element (LLClass & *element*) [inline]

References Oscl_Linked_List< LLClass, Alloc >::get_element(), and Oscl_Linked_List< LLClass, Alloc >::remove_element().

7.56.3.6 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::get_element (int32 *index*, LLClass & *element*) [inline]

Search and returns the element in the list for passed index.

Parameters

index,element The index is the count for the node.

Returns

32-bit integer on success returns 1 otherwise returns 0.

Referenced by Oscl_Linked_List< LLClass, Alloc >::dequeue_element().

7.56.3.7 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::get_first (LLClass & *ele*) [inline]

Return the first element of list in passed parameter,

Parameters

ele return the value of first element of list in this parameter

Returns

32-bit interger,If first element found, it returns 1 otherwise it returns 0

7.56.3.8 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::get_index (const LLClass & *data*) [inline]

Returns the index for requested element.

Parameters

data the element for which index to be return.

Returns

32-bit integer if data is found in the list it returns index otherwise it returns -1.

7.56.3.9 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::get_next (LLClass & *ele*) [inline]

Return the next element of list in passed parameter,

Parameters

ele return the value of next element of list in this parameter

Returns

32-bit interger ,if next element is found in list,it returns 1 otherwise it returns 0

7.56.3.10 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::get_num_elements () [inline]

Get number of elements in the list.

Returns

32-bit integer, number of elements in list.

References Oscl_Linked_List_Base::num_elements.

7.56.3.11 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::insert_element (const LLClass & *new_element*, int *index*) [inline]

Inserts new element in the list. If the index is past the end of the list it creates the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

7.56.3.12 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::move_to_end (const LLClass & *data_to_move*) [inline]

Moves the element to end of the list

Parameters

data_to_move

Returns

On success returns 1 otherwise returns 0.

7.56.3.13 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::move_to_front (const LLClass & *data_to_move*) [inline]

Moves the element to front of the list

Parameters

data_to_move

Returns

On success returns 1 otherwise returns 0.

7.56.3.14 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::remove_element (const int32 *index_to_remove*) [inline]

Removes the element for requested index.

Parameters

index_to_remove

Returns

on success return 1 otherwise return 0.

Reimplemented from [Oscl_Linked_List_Base](#).

References [Oscl_Linked_List< LLClass, Alloc >::remove_element\(\)](#).

7.56.3.15 template<class LLClass , class Alloc > int32 Oscl_Linked_List< LLClass, Alloc >::remove_element (const LLClass & *data_to_remove*) [inline]

Removes the element from the list.

Parameters

data_to_remove

Returns

32-bit integer on if element fount in the list returns 1 otherwise returns 0.

Referenced by [Oscl_Linked_List< LLClass, Alloc >::dequeue_element\(\)](#), and [Oscl_Linked_List< LLClass, Alloc >::remove_element\(\)](#).

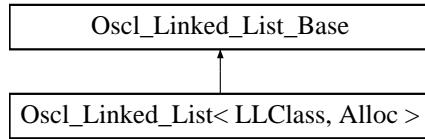
The documentation for this class was generated from the following file:

- [oscl_linked_list.h](#)

7.57 Oscl_Linked_List_Base Class Reference

```
#include <oscl_linked_list.h>
```

Inheritance diagram for Oscl_Linked_List_Base:



Protected Member Functions

- virtual [~Oscl_Linked_List_Base \(\)](#)
- OSCL_IMPORT_REF void [construct \(Oscl_Opaque_Type_Alloc_LL *op\)](#)
- OSCL_IMPORT_REF void [destroy \(\)](#)
- OSCL_IMPORT_REF int32 [get_first \(OsclAny *ele\)](#)
- OSCL_IMPORT_REF int32 [get_next \(OsclAny *ele\)](#)
- OSCL_IMPORT_REF int32 [check_list \(\)](#)
- OSCL_IMPORT_REF int32 [add_element \(const OsclAny *new_element\)](#)
- OSCL_IMPORT_REF int32 [add_to_front \(const OsclAny *new_element\)](#)
- OSCL_IMPORT_REF int32 [insert_element \(const OsclAny *new_element, int index\)](#)
- OSCL_IMPORT_REF int32 [get_element \(int32 index, OsclAny *element\)](#)
- OSCL_IMPORT_REF int32 [remove_element \(const OsclAny *data_to_remove\)](#)
- OSCL_IMPORT_REF int32 [get_index \(const OsclAny *data\)](#)
- OSCL_IMPORT_REF int32 [remove_element \(const int32 index_to_remove\)](#)
- OSCL_IMPORT_REF int32 [move_to_end \(const OsclAny *data_to_move\)](#)
- OSCL_IMPORT_REF int32 [move_to_front \(const OsclAny *data_to_move\)](#)

Protected Attributes

- [OsclAny * head](#)
- [OsclAny * tail](#)
- [OsclAny * iterator](#)
- int32 [num_elements](#)
- uint32 [sizeof_T](#)

7.57.1 Detailed Description

Oscl Linked List Base Class. A non-templated base class is used to avoid large inline functions in the [Oscl_Linked_List](#) implementation.

7.57.2 Constructor & Destructor Documentation

7.57.2.1 virtual Oscl_Linked_List_Base::~Oscl_Linked_List_Base () [inline, protected, virtual]

7.57.3 Member Function Documentation

7.57.3.1 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::add_element (const OsclAny * new_element) [protected]

Adds new element to the list.if list is already there then it adds element at end of list otherwise it create the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

7.57.3.2 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::add_to_front (const OsclAny * new_element) [protected]

Adds new element at the start of the list.if list is already exist then it adds element at start of list otherwise it create the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

7.57.3.3 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::check_list () [protected]

Debug routine: Checks the list for elements.

Returns

32-bit integer, if node count is equal to number of node added to the list then returns 1 otherwise returns 0.

Reimplemented in [Oscl_Linked_List< LLClass, Alloc >](#).

7.57.3.4 OSCL_IMPORT_REF void Oscl_Linked_List_Base::construct (Oscl_Opaque_Type_Alloc_LL * op) [protected]

Referenced by [Oscl_Linked_List< LLClass, Alloc >::Oscl_Linked_List\(\)](#).

7.57.3.5 OSCL_IMPORT_REF void Oscl_Linked_List_Base::destroy () [protected]

Referenced by Oscl_Linked_List< LLClass, Alloc >::clear(), and Oscl_Linked_List< LLClass, Alloc >::~Oscl_Linked_List().

7.57.3.6 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::get_element (int32 *index*, OsclAny * *element*) [protected]

Search and returns the element in the list for passed index.

Parameters

index,element The index is the count for the node.

Returns

32-bit integer on success returns 1 otherwise returns 0.

7.57.3.7 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::get_first (OsclAny * *ele*) [protected]

Return the first element of list in passed parameter,

Parameters

ele return the value of first element of list in this parameter

Returns

32-bit integer, If first element found, it returns 1 otherwise it returns 0

7.57.3.8 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::get_index (const OsclAny * *data*) [protected]

Returns the index for requested element.

Parameters

data the element for which index to be return.

Returns

32-bit integer if data is found in the list it returns index otherwise it returns -1.

7.57.3.9 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::get_next (OsclAny * *ele*) [protected]

Return the next element of list in passed parameter,

Parameters

ele return the value of next element of list in this parameter

Returns

32-bit integer ,if next element is found in list,it returns 1 otherwise it returns 0

7.57.3.10 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::insert_element (const OsclAny * new_element, int index) [protected]

Inserts new element in the list. If the index is past the end of the list it creates the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

7.57.3.11 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::move_to_end (const OsclAny * data_to_move) [protected]

Moves the element to end of the list

Parameters

data_to_move

Returns

On success returns 1 otherwise returns 0.

7.57.3.12 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::move_to_front (const OsclAny * data_to_move) [protected]

Moves the element to front of the list

Parameters

data_to_move

Returns

On success returns 1 otherwise returns 0.

7.57.3.13 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::remove_element (const int32 index_to_remove) [protected]

Removes the element for requested index.

Parameters

index_to_remove

Returns

on success return 1 otherwise return 0.

Reimplemented in [Oscl_Linked_List< LLClass, Alloc >](#).

**7.57.3.14 OSCL_IMPORT_REF int32 Oscl_Linked_List_Base::remove_element (const OsclAny *
data_to_remove) [protected]**

Removes the element from the list.

Parameters

data_to_remove

Returns

32-bit integer on if element fount in the list returns 1 otherwise returns 0.

7.57.4 Field Documentation**7.57.4.1 OsclAny* Oscl_Linked_List_Base::head [protected]****7.57.4.2 OsclAny* Oscl_Linked_List_Base::iterator [protected]****7.57.4.3 int32 Oscl_Linked_List_Base::num_elements [protected]**

Referenced by Oscl_Linked_List< LLClass, Alloc >::get_num_elements().

7.57.4.4 uint32 Oscl_Linked_List_Base::sizeof_T [protected]

Referenced by Oscl_Linked_List< LLClass, Alloc >::Oscl_Linked_List().

7.57.4.5 OsclAny* Oscl_Linked_List_Base::tail [protected]

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

- [oscl_linked_list.h](#)

7.58 Oscl_Map< Key, T, Alloc, Compare > Class Template Reference

```
#include <oscl_map.h>
```

Data Structures

- class [value_compare](#)

Public Types

- typedef Key [key_type](#)
- typedef Compare [key_compare](#)
- typedef [Oscl_Pair< const Key, T > value_type](#)
- typedef [Oscl_Map< Key, T, Alloc, Compare > self](#)
- typedef [rep_type::pointer pointer](#)
- typedef [rep_type::reference reference](#)
- typedef [rep_type::const_reference const_reference](#)
- typedef [rep_type::iterator iterator](#)
- typedef [rep_type::const_iterator const_iterator](#)
- typedef [rep_type::size_type size_type](#)
- typedef [Oscl_Pair< iterator, bool > pair_iterator_bool](#)
- typedef [Oscl_Pair< iterator, iterator > pair_iterator_iterator](#)
- typedef [Oscl_Pair< const_iterator, const_iterator > pair_criterator_criterator](#)

Public Member Functions

- [Oscl_Map \(const Compare &comp=Compare\(\)\)](#)
- [Oscl_Map \(const self &x\)](#)
- [self & operator= \(const self &x\)](#)
- [key_compare key_comp \(\) const](#)
- [value_compare value_comp \(\) const](#)
- [iterator begin \(\)](#)
- [const_iterator begin \(\) const](#)
- [iterator end \(\)](#)
- [const_iterator end \(\) const](#)
- [bool empty \(\) const](#)
- [size_type size \(\) const](#)
- [size_type max_size \(\) const](#)
- [T & operator\[\] \(const key_type &k\)](#)
- [pair_iterator_bool insert \(const value_type &x\)](#)
- [iterator insert \(iterator position, const value_type &x\)](#)
- [void insert \(const value_type *first, const value_type *last\)](#)
- [void erase \(iterator position\)](#)
- [size_type erase \(const key_type &x\)](#)
- [void erase \(iterator first, iterator last\)](#)
- [void clear \(\)](#)
- [iterator find \(const key_type &x\)](#)

- `const_iterator find (const key_type &x) const`
- `size_type count (const key_type &x) const`
- `iterator lower_bound (const key_type &x)`
- `const_iterator lower_bound (const key_type &x) const`
- `iterator upper_bound (const key_type &x)`
- `const_iterator upper_bound (const key_type &x) const`
- `pair_iterator_equal_range (const key_type &x)`
- `pair_citerator_citerator_equal_range (const key_type &x) const`

7.58.1 Detailed Description

`template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> class Oscl_Map< Key, T, Alloc, Compare >`

Oscl_Map Class. A subset of STL::Map methods. **Oscl_Map** is a sorted associative container that associates objects of type Key with objects of type T. It is also a unique associative container, meaning that no two elements have the same key. **Oscl_Map** uses the key to speed lookup, insertion, and deletion of elements. It is often superior to all other containers when you need to lookup an element by key value. Due to the underlying tree structure, inserts and erases can be performed in logarithmic time, where a vector would take linear time in some cases.

7.58.2 Member Typedef Documentation

- 7.58.2.1 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef rep_type::const_iterator Oscl_Map< Key, T, Alloc, Compare >::const_iterator`
- 7.58.2.2 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef rep_type::const_reference Oscl_Map< Key, T, Alloc, Compare >::const_reference`
- 7.58.2.3 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef rep_type::iterator Oscl_Map< Key, T, Alloc, Compare >::iterator`
- 7.58.2.4 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Compare Oscl_Map< Key, T, Alloc, Compare >::key_compare`
- 7.58.2.5 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Key Oscl_Map< Key, T, Alloc, Compare >::key_type`
- 7.58.2.6 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Oscl_Pair<const_iterator, const_iterator> Oscl_Map< Key, T, Alloc, Compare >::pair_citerator_citerator`
- 7.58.2.7 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Oscl_Pair<iterator, bool> Oscl_Map< Key, T, Alloc, Compare >::pair_iterator_bool`
- 7.58.2.8 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Oscl_Pair<iterator, iterator> Oscl_Map< Key, T, Alloc, Compare >::pair_iterator_iterator`
- 7.58.2.9 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef rep_type::pointer Oscl_Map< Key, T, Alloc, Compare >::pointer`
- 7.58.2.10 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef rep_type::reference Oscl_Map< Key, T, Alloc, Compare >::reference`
- 7.58.2.11 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Oscl_Map<Key, T, Alloc, Compare> Oscl_Map< Key, T, Alloc, Compare >::self`
- 7.58.2.12 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef rep_type::size_type Oscl_Map< Key, T, Alloc, Compare >::size_type`
- 7.58.2.13 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> typedef Oscl_Pair<const Key, T> Oscl_Map< Key, T, Alloc, Compare >::value_type`

7.58.3 Constructor & Destructor Documentation

- 7.58.3.1 `template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> Oscl_Map< Key, T, Alloc, Compare >::Oscl_Map (const Compare & comp = Compare ()) [inline]`

Creates an empty map using comp as the key compare object

7.58.3.2 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> Oscl_Map<Key, T, Alloc, Compare >::Oscl_Map (const self & x) [inline]

[Oscl_Map](#) copy constructor

7.58.4 Member Function Documentation

7.58.4.1 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> const_iterator Oscl_Map< Key, T, Alloc, Compare >::begin () const [inline]

Returns a const iterator pointing to the beginning of the map

7.58.4.2 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> iterator Oscl_Map< Key, T, Alloc, Compare >::begin () [inline]

Returns an iterator pointing to the beginning of the map

Referenced by [Oscl_TagTree< PVLogger *, alloc_type >::begin\(\)](#).

7.58.4.3 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> void Oscl_Map< Key, T, Alloc, Compare >::clear () [inline]

Erases all elements

Referenced by [Oscl_TagTree< PVLogger *, alloc_type >::clear\(\)](#).

7.58.4.4 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> size_type Oscl_Map< Key, T, Alloc, Compare >::count (const key_type & x) const [inline]

Returns the number of elements with key x. For map this will either be 0 or 1.

Referenced by [Oscl_TagTree< PVLogger *, alloc_type >::count\(\)](#).

7.58.4.5 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> bool Oscl_Map< Key, T, Alloc, Compare >::empty () const [inline]

Returns true if map size is 0

Referenced by [Oscl_TagTree< PVLogger *, alloc_type >::empty\(\)](#).

7.58.4.6 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> const_iterator Oscl_Map< Key, T, Alloc, Compare >::end () const [inline]

Returns a const iterator pointing to the end of the map.

7.58.4.7 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> iterator Oscl_Map< Key, T, Alloc, Compare >::end () [inline]

Returns an iterator pointing to the end of the map.

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::end(), and Oscl_TagTree< PVLogger *, alloc_type >::insert().

**7.58.4.8 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>>
pair_citerator_citerator Oscl_Map< Key, T, Alloc, Compare >::equal_range (const
key_type & x) const [inline]**

Finds a range containing all elements whose key is x

**7.58.4.9 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>>
pair_iterator_iterator Oscl_Map< Key, T, Alloc, Compare >::equal_range (const
key_type & x) [inline]**

Finds a range containing all elements whose key is x

**7.58.4.10 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> void
Oscl_Map< Key, T, Alloc, Compare >::erase (iterator first, iterator last) [inline]**

Erases all elements in the range [first,last)

**7.58.4.11 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> size_type
Oscl_Map< Key, T, Alloc, Compare >::erase (const key_type & x) [inline]**

Erases the element with key x

**7.58.4.12 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> void
Oscl_Map< Key, T, Alloc, Compare >::erase (iterator position) [inline]**

Erases the element pointed to by position

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::erase().

**7.58.4.13 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>>
const_iterator Oscl_Map< Key, T, Alloc, Compare >::find (const key_type & x) const [inline]**

Finds an element whose key is x

**7.58.4.14 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> iterator
Oscl_Map< Key, T, Alloc, Compare >::find (const key_type & x) [inline]**

Finds an element whose key is x

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::find(), and Oscl_TagTree< PVLogger *, alloc_type >::insert().

7.58.4.15 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> void Oscl_Map< Key, T, Alloc, Compare >::insert (const value_type *first, const value_type *last) [inline]

Inserts the range [first,last) into the map

7.58.4.16 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> iterator Oscl_Map< Key, T, Alloc, Compare >::insert (iterator position, const value_type & x) [inline]

Inserts x into the map using position as a hint as to where it should be inserted

7.58.4.17 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> pair_iterator_bool Oscl_Map< Key, T, Alloc, Compare >::insert (const value_type & x) [inline]

Inserts x into the map

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::insert(), Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::operator[](), and Oscl_TagTree< PVLogger *, alloc_type >::Oscl_TagTree().

7.58.4.18 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> key_compare Oscl_Map< Key, T, Alloc, Compare >::key_comp () const [inline]

Returns the key compare object used by the map

7.58.4.19 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> const_iterator Oscl_Map< Key, T, Alloc, Compare >::lower_bound (const key_type & x) const [inline]

Finds the first element whose key is not less than x

7.58.4.20 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> iterator Oscl_Map< Key, T, Alloc, Compare >::lower_bound (const key_type & x) [inline]

Finds the first element whose key is not less than x

7.58.4.21 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> size_type Oscl_Map< Key, T, Alloc, Compare >::max_size () const [inline]

Returns the maximum possible size of the map

7.58.4.22 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> self& Oscl_Map< Key, T, Alloc, Compare >::operator= (const self & x) [inline]

Oscl_Map assignment operator

7.58.4.23 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> T& Oscl_Map< Key, T, Alloc, Compare >::operator[] (const key_type & k) [inline]

Returns a reference to the object that is associated with a particular key. If the map does not already contain such an object, operator[] inserts the default object [value_type\(\)](#).

7.58.4.24 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> size_type Oscl_Map< Key, T, Alloc, Compare >::size () const [inline]

Returns the size of the map

Referenced by [Oscl_TagTree< PVLogger *, alloc_type >::size\(\)](#).

7.58.4.25 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> const_iterator Oscl_Map< Key, T, Alloc, Compare >::upper_bound (const key_type & x) const [inline]

Finds the first element whose key is not greater than x

7.58.4.26 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> iterator Oscl_Map< Key, T, Alloc, Compare >::upper_bound (const key_type & x) [inline]

Finds the first element whose key is not greater than x

7.58.4.27 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> value_compare Oscl_Map< Key, T, Alloc, Compare >::value_comp () const [inline]

Returns the value compare object used by the map

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

- [oscl_map.h](#)

7.59 Oscl_MTLinked_List< LLClass, Alloc, TheLock > Class Template Reference

```
#include <oscl_linked_list.h>
```

Public Member Functions

- [Oscl_MTLinked_List \(\)](#)
- [~Oscl_MTLinked_List \(\)](#)
- int32 [dequeue_element \(LLClass &element\)](#)
- int32 [add_element \(LLClass &new_element\)](#)
- int32 [add_to_front \(LLClass &new_element\)](#)
- uint32 [get_element \(int32 index, LLClass &element\)](#)
- int32 [remove_element \(const LLClass &data_to_remove\)](#)
- int32 [get_index \(const LLClass &data\)](#)
- int32 [remove_element \(const int32 index_to_remove\)](#)
- int32 [move_to_end \(const LLClass &data_to_move\)](#)
- int32 [move_to_front \(const LLClass &data_to_move\)](#)

Protected Attributes

- [Oscl_Linked_List< LLClass, Alloc > the_list](#)

7.59.1 Detailed Description

template<class LLClass, class Alloc, class TheLock> class Oscl_MTLinked_List< LLClass, Alloc, TheLock >

[Oscl_MTLinked_List](#) is a multi-threaded version of the [LinkedList](#). It has mutex protection to allow access by different threads.

7.59.2 Constructor & Destructor Documentation

7.59.2.1 template<class LLClass , class Alloc , class TheLock > Oscl_MTLinked_List< LLClass, Alloc, TheLock >::Oscl_MTLinked_List () [inline]

Constructor for [Oscl_MTLinked_List](#)

7.59.2.2 template<class LLClass , class Alloc , class TheLock > Oscl_MTLinked_List< LLClass, Alloc, TheLock >::~Oscl_MTLinked_List () [inline]

Destructor for [Oscl_MTLinked_List](#)

7.59.3 Member Function Documentation

7.59.3.1 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::add_element (LLClass & new_element) [inline]

Adds new element to the Multi Threaded Linked list.if list is already there then it adds element at end of list otherwise it create the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.2 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::add_to_front (LLClass & new_element) [inline]

Adds new element at the start of the Multi Threaded Linked list. if list is already exist then it adds element at start of list otherwise it create the list and add the element as first element of list.

Parameters

new_element the element to be add in the list.

Returns

32-bit integer on the success returns 1.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.3 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::dequeue_element (LLClass & element) [inline]

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.4 template<class LLClass , class Alloc , class TheLock > uint32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::get_element (int32 index, LLClass & element) [inline]

Search and returns the element in the Multi Threaded Linked List for passed index.

Parameters

index,element The index is the count for the node.

Returns

32-bit integer on success returns 1 otherwise returns 0.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.5 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::get_index (const LLClass & *data*) [inline]

Returns the index for requested element.

Parameters

data the element for which index to be return.

Returns

32-bit integer if data is found in the list it returns index otherwise it returns -1.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.6 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::move_to_end (const LLClass & *data_to_move*) [inline]

Moves the element to end of the list

Parameters

data_to_move

Returns

On success returns 1 otherwise returns 0.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.7 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::move_to_front (const LLClass & *data_to_move*) [inline]

Moves the element to front of the list

Parameters

data_to_move

Returns

On success returns 1 otherwise returns 0.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.8 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::remove_element (const int32 *index_to_remove*) [inline]

Removes the element for requested index.

Parameters

index_to_remove

Returns

on success return 1 otherwise return 0.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.3.9 template<class LLClass , class Alloc , class TheLock > int32 Oscl_MTLinked_List< LLClass, Alloc, TheLock >::remove_element (const LLClass & *data_to_remove*) [inline]

Removes the element from the list.

Parameters

data_to_remove

Returns

32-bit integer on if element fount in the list returns 1 otherwise returns 0.

References Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list.

7.59.4 Field Documentation

7.59.4.1 template<class LLClass , class Alloc , class TheLock > Oscl_Linked_List<LLClass, Alloc> Oscl_MTLinked_List< LLClass, Alloc, TheLock >::the_list [protected]

Referenced by Oscl_MTLinked_List< LLClass, Alloc, TheLock >::add_element(), Oscl_MTLinked_List< LLClass, Alloc, TheLock >::add_to_front(), Oscl_MTLinked_List< LLClass, Alloc, TheLock >::dequeue_element(), Oscl_MTLinked_List< LLClass, Alloc, TheLock >::get_element(), Oscl_MTLinked_List< LLClass, Alloc, TheLock >::get_index(), Oscl_MTLinked_List< LLClass, Alloc, TheLock >::move_to_end(), Oscl_MTLinked_List< LLClass, Alloc, TheLock >::move_to_front(), and Oscl_MTLinked_List< LLClass, Alloc, TheLock >::remove_element().

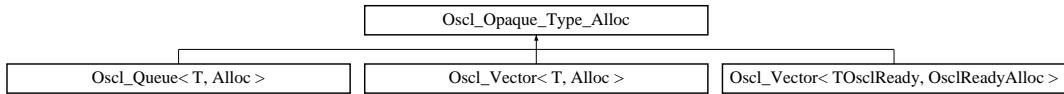
The documentation for this class was generated from the following file:

- [oscl_linked_list.h](#)

7.60 Oscl_Opaque_Type_Alloc Class Reference

```
#include <oscl_opaque_type.h>
```

Inheritance diagram for Oscl_Opaque_Type_Alloc:



Public Member Functions

- virtual ~Oscl_Opaque_Type_Alloc ()
- virtual void construct (OsclAny *p, const OsclAny *init_val)=0
- virtual void destroy (OsclAny *p)=0
- virtual OsclAny * allocate (const uint32 size)=0
- virtual void deallocate (OsclAny *p)=0

7.60.1 Detailed Description

This class combines opaque type operations with memory allocation operations.

7.60.2 Constructor & Destructor Documentation

7.60.2.1 virtual Oscl_Opaque_Type_Alloc::~Oscl_Opaque_Type_Alloc () [inline, virtual]

7.60.3 Member Function Documentation

7.60.3.1 virtual OsclAny* Oscl_Opaque_Type_Alloc::allocate (const uint32 size) [pure virtual]

Allocate "size" bytes

7.60.3.2 virtual void Oscl_Opaque_Type_Alloc::construct (OsclAny * p, const OsclAny * init_val) [pure virtual]

Construct element at p using element at init_val as the initial value. Both pointers must be non-NULL.

7.60.3.3 virtual void Oscl_Opaque_Type_Alloc::deallocate (OsclAny * p) [pure virtual]

Deallocate memory previously allocated with "allocate"

7.60.3.4 virtual void Oscl_Opaque_Type_Alloc::destroy (OsclAny * p) [pure virtual]

Destroy element at p.

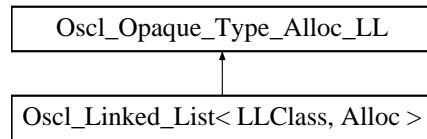
The documentation for this class was generated from the following file:

- [oscl_opaque_type.h](#)

7.61 Oscl_Opaque_Type_Alloc_LL Class Reference

```
#include <oscl_opaque_type.h>
```

Inheritance diagram for Oscl_Opaque_Type_Alloc_LL:



Public Member Functions

- virtual ~Oscl_Opaque_Type_Alloc_LL()
- virtual void construct (OsclAny *p, const OsclAny *init_val)=0
- virtual void destroy (OsclAny *p)=0
- virtual OsclAny * allocate (const uint32 size)=0
- virtual void deallocate (OsclAny *p)=0
- virtual OsclAny * get_next (const OsclAny *elem) const =0
- virtual void set_next (OsclAny *elem, const OsclAny *nextelem)=0
- virtual void get_data (OsclAny *elem, OsclAny *data_val)=0
- virtual bool compare_data (const OsclAny *elem, const OsclAny *data_val) const =0

7.61.1 Detailed Description

This class combines opaque type operations with memory allocation operations and linked list support

7.61.2 Constructor & Destructor Documentation

7.61.2.1 virtual Oscl_Opaque_Type_Alloc_LL::~Oscl_Opaque_Type_Alloc_LL () [inline, virtual]

7.61.3 Member Function Documentation

7.61.3.1 virtual OsclAny* Oscl_Opaque_Type_Alloc_LL::allocate (const uint32 size) [pure virtual]

Allocate "size" bytes

7.61.3.2 virtual bool Oscl_Opaque_Type_Alloc_LL::compare_data (const OsclAny * elem, const OsclAny * data_val) const [pure virtual]

Compare data.

7.61.3.3 virtual void Oscl_Opaque_Type_Alloc_LL::construct (OsclAny * p, const OsclAny * init_val) [pure virtual]

Construct element at p using element at init_val as the initial value. Both pointers must be non-NULL.

7.61.3.4 virtual void Oscl_Opaque_Type_Alloc_LL::deallocate (OsclAny * *p*) [pure virtual]

Deallocate memory previously allocated with "allocate"

7.61.3.5 virtual void Oscl_Opaque_Type_Alloc_LL::destroy (OsclAny * *p*) [pure virtual]

Destroy element at p.

7.61.3.6 virtual void Oscl_Opaque_Type_Alloc_LL::get_data (OsclAny * *elem*, OsclAny * *data_val*) [pure virtual]

Get data

7.61.3.7 virtual OsclAny* Oscl_Opaque_Type_Alloc_LL::get_next (const OsclAny * *elem*) const [pure virtual]

Get next element in linked list.

7.61.3.8 virtual void Oscl_Opaque_Type_Alloc_LL::set_next (OsclAny * *elem*, const OsclAny * *nextelem*) [pure virtual]

Set next element in linked list.

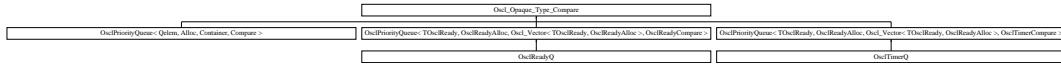
The documentation for this class was generated from the following file:

- [oscl_opaque_type.h](#)

7.62 Oscl_Opaque_Type_Compare Class Reference

```
#include <oscl_opaque_type.h>
```

Inheritance diagram for Oscl_Opaque_Type_Compare:



Public Member Functions

- virtual ~Oscl_Opaque_Type_Compare ()
- virtual void swap (OsclAny *a, const OsclAny *b)=0
- virtual int compare_LT (OsclAny *a, OsclAny *b) const =0
- virtual int compare_EQ (const OsclAny *a, const OsclAny *b) const =0

7.62.1 Detailed Description

Opaque type operations with swap & comparisons.

7.62.2 Constructor & Destructor Documentation

7.62.2.1 virtual Oscl_Opaque_Type_Compare::~Oscl_Opaque_Type_Compare () [inline, virtual]

7.62.3 Member Function Documentation

7.62.3.1 virtual int Oscl_Opaque_Type_Compare::compare_EQ (const OsclAny * a, const OsclAny * b) const [pure virtual]

Return a==b.

Implemented in OsclPriorityQueue< Qelem, Alloc, Container, Compare >, OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclReadyCompare >, and OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >.

7.62.3.2 virtual int Oscl_Opaque_Type_Compare::compare_LT (OsclAny * a, OsclAny * b) const [pure virtual]

Return a<b.

Implemented in OsclPriorityQueue< Qelem, Alloc, Container, Compare >, OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclReadyCompare >, and OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >.

**7.62.3.3 virtual void Oscl_Opaque_Type_Compare::swap (OsclAny * *a*, const OsclAny * *b*)
[pure virtual]**

Swap element at "a" with element at "b". Both pointers must be non-NULL.

Implemented in [OsclPriorityQueue< Qelem, Alloc, Container, Compare >](#), [OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclReadyCompare >](#), and [OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >](#).

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

- [oscl_opaque_type.h](#)

7.63 Oscl_Pair< T1, T2 > Struct Template Reference

```
#include <oscl_tree.h>
```

Public Member Functions

- [Oscl_Pair \(\)](#)
- [Oscl_Pair \(const T1 &a, const T2 &b\)](#)

Data Fields

- T1 [first](#)
- T2 [second](#)

```
template<class T1, class T2> struct Oscl_Pair< T1, T2 >
```

7.63.1 Constructor & Destructor Documentation

7.63.1.1 template<class T1, class T2> Oscl_Pair< T1, T2 >::Oscl_Pair () [inline]

7.63.1.2 template<class T1, class T2> Oscl_Pair< T1, T2 >::Oscl_Pair (const T1 & a, const T2 & b) [inline]

7.63.2 Field Documentation

7.63.2.1 template<class T1, class T2> T1 Oscl_Pair< T1, T2 >::first

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::count(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), Oscl_TagTree< PVLogger *, alloc_type >::insert(), and Oscl_Map< Key, T, Alloc, Compare >::value_compare::operator()().

7.63.2.2 template<class T1, class T2> T2 Oscl_Pair< T1, T2 >::second

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::count(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), and Oscl_TagTree< PVLogger *, alloc_type >::insert().

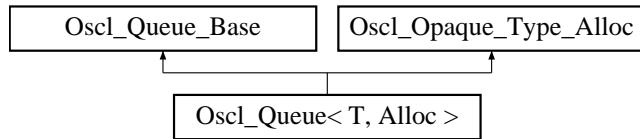
The documentation for this struct was generated from the following file:

- [oscl_tree.h](#)

7.64 Oscl_Queue< T, Alloc > Class Template Reference

```
#include <oscl_queue.h>
```

Inheritance diagram for Oscl_Queue< T, Alloc >:



Public Types

- `typedef T value_type`
- `typedef T * pointer`
- `typedef T & reference`
- `typedef const T & const_reference`
- `typedef uint32 size_type`

Public Member Functions

- `Oscl_Queue ()`
- `Oscl_Queue (uint32 n)`
- `virtual ~Oscl_Queue ()`
- `void push (const T &x)`
- `reference front ()`
- `const_reference front () const`
- `void pop ()`
- `reference back ()`
- `const_reference back () const`
- `void clear ()`

7.64.1 Detailed Description

`template<class T, class Alloc> class Oscl_Queue< T, Alloc >`

Oscl_Queue Class. A subset of STL::Queue methods. **Oscl_Queue** supports constant time insertion (at the end) and removal of elements at the front of the queue. It does not support insertion or removal of elements at the other ends or middle of the queue, nor random access to elements. * No iteration capability is [currently] supplied. * No assignment or copy capability is [currently] supplied. The number of elements in a queue can vary dynamically, and memory management is performed automatically.

7.64.2 Member Typedef Documentation

- 7.64.2.1 `template<class T, class Alloc> typedef const T& Oscl_Queue< T, Alloc >::const_reference`
- 7.64.2.2 `template<class T, class Alloc> typedef T* Oscl_Queue< T, Alloc >::pointer`
- 7.64.2.3 `template<class T, class Alloc> typedef T& Oscl_Queue< T, Alloc >::reference`
- 7.64.2.4 `template<class T, class Alloc> typedef uint32 Oscl_Queue< T, Alloc >::size_type`
- 7.64.2.5 `template<class T, class Alloc> typedef T Oscl_Queue< T, Alloc >::value_type`

7.64.3 Constructor & Destructor Documentation

- 7.64.3.1 `template<class T, class Alloc> Oscl_Queue< T, Alloc >::Oscl_Queue () [inline]`

Creates an empty queue.

References `Oscl_Queue_Base::construct()`, and `Oscl_Queue_Base::sizeof_T`.

- 7.64.3.2 `template<class T, class Alloc> Oscl_Queue< T, Alloc >::Oscl_Queue (uint32 n) [inline]`

Creates an empty queue with capacity n.

Parameters

n creates a queue with n elements. The main reason for specifying n is efficiency. If you know the capacity to which your queue must grow, then it is more efficient to allocate the queue all at once rather than rely on the automatic reallocation scheme.

References `Oscl_Queue_Base::construct()`, and `Oscl_Queue_Base::sizeof_T`.

- 7.64.3.3 `template<class T, class Alloc> virtual Oscl_Queue< T, Alloc >::~Oscl_Queue () [inline, virtual]`

The destructor.

References `Oscl_Queue_Base::destroy()`.

7.64.4 Member Function Documentation

- 7.64.4.1 `template<class T, class Alloc> const_reference Oscl_Queue< T, Alloc >::back () const [inline]`

Returns the last element (const)

References `Oscl_Queue_Base::elems`, `Oscl_Queue_Base::empty()`, `Oscl_Queue_Base::irear`, and `OSCL_ASSERT`.

7.64.4.2 template<class T, class Alloc> reference Oscl_Queue< T, Alloc >::back () [inline]

Returns the last element: "back" (generally not too useful, but some debugging aids might want to find out what was just added)

References Oscl_Queue_Base::elems, Oscl_Queue_Base::empty(), Oscl_Queue_Base::irear, and OSCL_ASSERT.

7.64.4.3 template<class T, class Alloc> void Oscl_Queue< T, Alloc >::clear () [inline]

Removes all elements.

Reimplemented from [Oscl_Queue_Base](#).

7.64.4.4 template<class T, class Alloc> const_reference Oscl_Queue< T, Alloc >::front () const [inline]

Returns the first element (const)

References Oscl_Queue_Base::elems, Oscl_Queue_Base::empty(), Oscl_Queue_Base::ifront, and OSCL_ASSERT.

7.64.4.5 template<class T, class Alloc> reference Oscl_Queue< T, Alloc >::front () [inline]

Returns the first element.

Reimplemented from [Oscl_Queue_Base](#).

References Oscl_Queue_Base::elems, Oscl_Queue_Base::empty(), Oscl_Queue_Base::ifront, and OSCL_ASSERT.

7.64.4.6 template<class T, class Alloc> void Oscl_Queue< T, Alloc >::pop () [inline]

Removes the first element

Reimplemented from [Oscl_Queue_Base](#).

7.64.4.7 template<class T, class Alloc> void Oscl_Queue< T, Alloc >::push (const T & x) [inline]

Inserts a new element at the end. Queue will be grown if necessary. If allocation fails, an OSCL_LEAVE will occur

Parameters

x new element

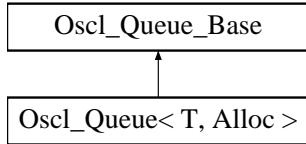
The documentation for this class was generated from the following file:

- [oscl_queue.h](#)

7.65 Oscl_Queue_Base Class Reference

```
#include <oscl_queue.h>
```

Inheritance diagram for Oscl_Queue_Base:



Public Member Functions

- uint32 [size \(\) const](#)
- uint32 [capacity \(\) const](#)
- bool [empty \(\) const](#)
- OSCL_IMPORT_REF void [reserve](#) (uint32 n)

Protected Member Functions

- OSCL_IMPORT_REF void [construct](#) (Oscl_Opaque_Type_Alloc *aType)
- OSCL_IMPORT_REF void [construct](#) (Oscl_Opaque_Type_Alloc *aType, uint32 n)
- virtual ~[Oscl_Queue_Base](#) ()
- OSCL_IMPORT_REF void [destroy](#) ()
- OSCL_IMPORT_REF void [push](#) (const OsclAny *x)
- OSCL_IMPORT_REF void [pop](#) ()
- OSCL_IMPORT_REF void [clear](#) ()

Protected Attributes

- uint32 [numelems](#)
- uint32 [bufsize](#)
- OsclAny * [elems](#)
- uint32 [sizeof_T](#)
- uint32 [ifront](#)
- uint32 [irear](#)

7.65.1 Detailed Description

[Oscl_Queue_Base](#) is a non-templatized base class for [Oscl_Queue](#). The purpose of this base class is to avoid large inline routines in the [Oscl_Queue](#) implementation. This class is not intended for direct instantiation except by [Oscl_Queue](#).

7.65.2 Constructor & Destructor Documentation

7.65.2.1 virtual Oscl_Queue_Base::~Oscl_Queue_Base () [inline, protected, virtual]

The destructor.

7.65.3 Member Function Documentation

7.65.3.1 **uint32 Oscl_Queue_Base::capacity () const [inline]**

Returns the allocated memory of the queue.

References bufsize.

7.65.3.2 **OSCL_IMPORT_REF void Oscl_Queue_Base::clear () [protected]**

Removes all elements.

Reimplemented in [Oscl_Queue< T, Alloc >](#).

7.65.3.3 **OSCL_IMPORT_REF void Oscl_Queue_Base::construct (Oscl_Opaque_Type_Alloc * aType, uint32 n) [protected]**

7.65.3.4 **OSCL_IMPORT_REF void Oscl_Queue_Base::construct (Oscl_Opaque_Type_Alloc * aType) [protected]**

Referenced by [Oscl_Queue< T, Alloc >::Oscl_Queue\(\)](#).

7.65.3.5 **OSCL_IMPORT_REF void Oscl_Queue_Base::destroy () [protected]**

Like an explicit destructor call.

Referenced by [Oscl_Queue< T, Alloc >::~Oscl_Queue\(\)](#).

7.65.3.6 **bool Oscl_Queue_Base::empty () const [inline]**

True if there are no elements in the queue

References numelems.

Referenced by [Oscl_Queue< T, Alloc >::back\(\)](#), and [Oscl_Queue< T, Alloc >::front\(\)](#).

7.65.3.7 **OSCL_IMPORT_REF void Oscl_Queue_Base::pop () [protected]**

Removes the first element

Reimplemented in [Oscl_Queue< T, Alloc >](#).

7.65.3.8 **OSCL_IMPORT_REF void Oscl_Queue_Base::push (const OsclAny * x) [protected]**

Inserts a new element at the end. Queue will be grown if necessary. If allocation fails, an OSCL_LEAVE will occur

Parameters

x new element

7.65.3.9 OSCL_IMPORT_REF void Oscl_Queue_Base::reserve (uint32 *n*)

Reallocates memory if necessary to a capacity of *n* elements. The main reason for reserve is efficiency. If you know the capacity to which your vector must grow, then it is more efficient to allocate the vector all at once rather than rely on the automatic reallocation scheme. This also helps control the invalidation of iterators.

Parameters

n size of vector

7.65.3.10 uint32 Oscl_Queue_Base::size () const [inline]

Returns the size of the queue.

References numelems.

7.65.4 Field Documentation**7.65.4.1 uint32 Oscl_Queue_Base::bufsize [protected]**

Referenced by capacity().

7.65.4.2 OsclAny* Oscl_Queue_Base::elems [protected]

Referenced by Oscl_Queue< T, Alloc >::back(), and Oscl_Queue< T, Alloc >::front().

7.65.4.3 uint32 Oscl_Queue_Base::ifront [protected]

Referenced by Oscl_Queue< T, Alloc >::front().

7.65.4.4 uint32 Oscl_Queue_Base::irear [protected]

Referenced by Oscl_Queue< T, Alloc >::back().

7.65.4.5 uint32 Oscl_Queue_Base::numelems [protected]

Referenced by empty(), and size().

7.65.4.6 uint32 Oscl_Queue_Base::sizeof_T [protected]

Referenced by Oscl_Queue< T, Alloc >::Oscl_Queue().

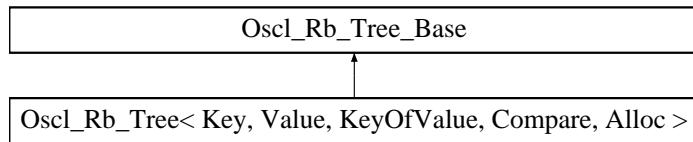
The documentation for this class was generated from the following file:

- [oscl_queue.h](#)

7.66 Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc > Class Template Reference

```
#include <oscl_tree.h>
```

Inheritance diagram for Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >:



Public Types

- `typedef Key key_type`
- `typedef Value value_type`
- `typedef value_type * pointer`
- `typedef const value_type * const_pointer`
- `typedef value_type & reference`
- `typedef const value_type & const_reference`
- `typedef Oscl_Rb_Tree_Node< Value >::link_type link_type`
- `typedef Oscl_Rb_Tree_Iterator< value_type > iterator`
- `typedef Oscl_Rb_Tree_Const_Iterator< value_type > const_iterator`
- `typedef uint32 size_type`
- `typedef int32 difference_type`

Public Member Functions

- `Oscl_Rb_Tree (const Compare &comp=Compare())`
- `Oscl_Rb_Tree (const Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc > &x)`
- `~Oscl_Rb_Tree ()`
- `Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc > & operator= (const Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc > &x)`
- `iterator begin ()`
- `const_iterator begin () const`
- `iterator end ()`
- `const_iterator end () const`
- `bool empty () const`
- `size_type size () const`
- `size_type max_size () const`
- `Oscl_Pair< iterator, bool > insert_unique (const value_type &v)`
- `iterator insert_unique (iterator position, const value_type &v)`
- `void insert_unique (const iterator first, const iterator last)`
- `void insert_unique (const value_type *first, const value_type *last)`
- `void erase (iterator position)`
- `size_type erase (const key_type &x)`
- `void erase (iterator first, iterator last)`
- `void erase (const key_type *first, const key_type *last)`

- void `clear ()`
 - `iterator find (const Key &k)`
 - `const_iterator find (const Key &k) const`
 - `size_type count (const Key &k) const`
 - `iterator lower_bound (const Key &k)`
 - `const_iterator lower_bound (const Key &k) const`
 - `iterator upper_bound (const Key &k)`
 - `const_iterator upper_bound (const Key &k) const`
 - `Oscl_Pair< iterator, iterator > equal_range (const Key &k)`
 - `Oscl_Pair< const_iterator, const_iterator > equal_range (const Key &k) const`

```
template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> class Oscl_Rb_-Tree< Key, Value, KeyOfValue, Compare, Alloc >
```

7.66.1 Member Typedef Documentation

- 7.66.1.1 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef Oscl_Rb_Tree_Const_Iterator<value_type> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::const_iterator
- 7.66.1.2 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef const value_type* Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::const_pointer
- 7.66.1.3 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef const value_type& Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::const_reference
- 7.66.1.4 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef int32 Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::difference_type
- 7.66.1.5 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef Oscl_Rb_Tree_Iterator<value_type> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::iterator
- 7.66.1.6 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef Key Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::key_type
- 7.66.1.7 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef Oscl_Rb_Tree_Node<Value>::link_type Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::link_type
- 7.66.1.8 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef value_type* Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::pointer
- 7.66.1.9 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef value_type& Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::reference
- 7.66.1.10 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef uint32 Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::size_type
- 7.66.1.11 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> typedef Value Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::value_type

7.66.2 Constructor & Destructor Documentation

- 7.66.2.1 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::Oscl_Rb_Tree (const Compare & *comp* = Compare()) [inline]
- 7.66.2.2 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::Oscl_Rb_Tree (const Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc > & *x*) [inline]
- 7.66.2.3 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::Oscl_Rb_Tree () [inline]

7.66.3 Member Function Documentation

- 7.66.3.1 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> const_iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::begin() const

`>::erase(), and Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::insert_unique().`

7.66.3.3 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> void Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::clear () [inline]

Referenced by Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::clear(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::operator=(), and Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::~Oscl_Rb_Tree().

7.66.3.4 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> size_type Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::count (const Key & k) const [inline]

Referenced by Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::count().

7.66.3.5 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> bool Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::empty () const [inline]

Referenced by Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::empty().

7.66.3.6 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> const_iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::end () const [inline]

7.66.3.7 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::end () [inline]

Referenced by Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::end(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), and Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::find().

7.66.3.8 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> Oscl_Pair<const_iterator, const_iterator> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::equal_range (const Key & k) const [inline]

7.66.3.9 template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> Oscl_Pair<iterator, iterator> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::equal_range (const Key & k) [inline]

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::count(), Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::equal_range(), and Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase().

- 7.66.3.10 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> void Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::erase (const key_type * *first*, const key_type * *last*) [inline]**
- 7.66.3.11 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> void Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::erase (iterator *first*, iterator *last*) [inline]**
- 7.66.3.12 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> size_type Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::erase (const key_type & *x*) [inline]**
- 7.66.3.13 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> void Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::erase (iterator *position*) [inline]**

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), and Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::erase().

- 7.66.3.14 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> const_iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::find (const Key & *k*) const [inline]**
- 7.66.3.15 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::find (const Key & *k*) [inline]**

Referenced by Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::find().

- 7.66.3.16 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> void Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::insert_unique (const value_type * *first*, const value_type * *last*) [inline]**
- 7.66.3.17 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> void Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::insert_unique (const_iterator *first*, const_iterator *last*) [inline]**
- 7.66.3.18 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::insert_unique (iterator *position*, const value_type & *v*) [inline]**
- 7.66.3.19 **template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> Oscl_Pair<iterator, bool> Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::insert_unique (const value_type & *v*) [inline]**

Referenced by Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::insert(), and Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::insert_unique().

- 7.66.3.20** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc>`
`const_iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc`
`>::lower_bound (const Key & k) const [inline]`
- 7.66.3.21** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> iterator`
`Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::lower_bound (const Key &`
`k) [inline]`

Referenced by `Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::equal_range()`, and `Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::lower_bound()`.

- 7.66.3.22** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc>`
`size_type Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::max_size () const`
`[inline]`

Referenced by `Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::max_size()`.

- 7.66.3.23** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc>`
`Oscl_Rb_Tree<Key, Value, KeyOfValue, Compare, Alloc>& Oscl_Rb_Tree< Key,`
`Value, KeyOfValue, Compare, Alloc >::operator= (const Oscl_Rb_Tree< Key, Value,`
`KeyOfValue, Compare, Alloc > & x) [inline]`

- 7.66.3.24** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc>`
`size_type Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::size () const`
`[inline]`

Referenced by `Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::insert_unique()`, and `Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::size()`.

- 7.66.3.25** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc>`
`const_iterator Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc`
`>::upper_bound (const Key & k) const [inline]`

- 7.66.3.26** `template<class Key, class Value, class KeyOfValue, class Compare, class Alloc> iterator`
`Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >::upper_bound (const Key`
`& k) [inline]`

Referenced by `Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::equal_range()`, and `Oscl_Map< const tag_base_type, node_ptr, alloc_type, Oscl_Tag_Base >::upper_bound()`.

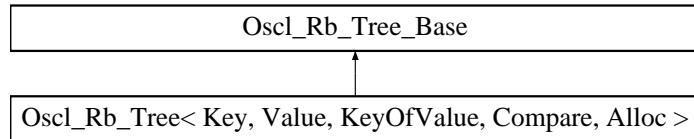
The documentation for this class was generated from the following file:

- [oscl_tree.h](#)

7.67 Oscl_Rb_Tree_Base Class Reference

```
#include <oscl_tree.h>
```

Inheritance diagram for Oscl_Rb_Tree_Base:



Public Types

- `typedef Oscl_Rb_Tree_Node_Base::base_link_type base_link_type`

Public Member Functions

- `OSCL_IMPORT_REF void rotate_left (base_link_type x, base_link_type &root)`
- `OSCL_IMPORT_REF void rotate_right (base_link_type x, base_link_type &root)`
- `OSCL_IMPORT_REF void rebalance (base_link_type x, base_link_type &root)`
- `OSCL_IMPORT_REF base_link_type rebalance_for_erase (base_link_type z, base_link_type &root, base_link_type &leftmost, base_link_type &rightmost)`

7.67.1 Member Typedef Documentation

7.67.1.1 `typedef Oscl_Rb_Tree_Node_Base::base_link_type Oscl_Rb_Tree_Base::base_link_type`

7.67.2 Member Function Documentation

7.67.2.1 `OSCL_IMPORT_REF void Oscl_Rb_Tree_Base::rebalance (base_link_type x, base_link_type & root)`

7.67.2.2 `OSCL_IMPORT_REF base_link_type Oscl_Rb_Tree_Base::rebalance_for_erase (base_link_type z, base_link_type & root, base_link_type & leftmost, base_link_type & rightmost)`

Referenced by `Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase()`.

7.67.2.3 `OSCL_IMPORT_REF void Oscl_Rb_Tree_Base::rotate_left (base_link_type x, base_link_type & root)`

7.67.2.4 `OSCL_IMPORT_REF void Oscl_Rb_Tree_Base::rotate_right (base_link_type x, base_link_type & root)`

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

- `oscl_tree.h`

7.68 Oscl_Rb_Tree_Const_Iterator< Value > Struct Template Reference

```
#include <oscl_tree.h>
```

Public Types

- `typedef Value value_type`
- `typedef const value_type & reference`
- `typedef const value_type * pointer`
- `typedef Oscl_Rb_Tree_Const_Iterator< Value > const_iterator`
- `typedef Oscl_Rb_Tree_Const_Iterator< Value > self`
- `typedef Oscl_Rb_Tree_Node_Base * base_link_type`
- `typedef Oscl_Rb_Tree_Node< Value > * link_type`

Public Member Functions

- `Oscl_Rb_Tree_Const_Iterator()`
- `Oscl_Rb_Tree_Const_Iterator(link_type x)`
- `Oscl_Rb_Tree_Const_Iterator(const const_iterator &it)`
- `reference operator*() const`
- `pointer operator->() const`
- `bool operator==(const self &x)`
- `bool operator!=(const self &x)`
- `self & operator++()`
- `self operator++(int)`
- `self & operator--()`
- `self operator--(int)`

Data Fields

- `base_link_type node`

```
template<class Value> struct Oscl_Rb_Tree_Const_Iterator< Value >
```

7.68.1 Member Typedef Documentation

- 7.68.1.1 template<class Value > typedef Oscl_Rb_Tree_Node_Base* Oscl_Rb_Tree_Const_Iterator< Value >::base_link_type
- 7.68.1.2 template<class Value > typedef Oscl_Rb_Tree_Const_Iterator<Value> Oscl_Rb_Tree_Const_Iterator< Value >::const_iterator
- 7.68.1.3 template<class Value > typedef Oscl_Rb_Tree_Node<Value>* Oscl_Rb_Tree_Const_Iterator< Value >::link_type
- 7.68.1.4 template<class Value > typedef const value_type* Oscl_Rb_Tree_Const_Iterator< Value >::pointer
- 7.68.1.5 template<class Value > typedef const value_type& Oscl_Rb_Tree_Const_Iterator< Value >::reference
- 7.68.1.6 template<class Value > typedef Oscl_Rb_Tree_Const_Iterator<Value> Oscl_Rb_Tree_Const_Iterator< Value >::self
- 7.68.1.7 template<class Value > typedef Value Oscl_Rb_Tree_Const_Iterator< Value >::value_type

7.68.2 Constructor & Destructor Documentation

- 7.68.2.1 template<class Value > Oscl_Rb_Tree_Const_Iterator< Value >::Oscl_Rb_Tree_Const_Iterator () [inline]
- 7.68.2.2 template<class Value > Oscl_Rb_Tree_Const_Iterator< Value >::Oscl_Rb_Tree_Const_Iterator (link_type x) [inline]

References Oscl_Rb_Tree_Const_Iterator< Value >::node.

- 7.68.2.3 template<class Value > Oscl_Rb_Tree_Const_Iterator< Value >::Oscl_Rb_Tree_Const_Iterator (const const_iterator & it) [inline]

References Oscl_Rb_Tree_Const_Iterator< Value >::node.

7.68.3 Member Function Documentation

- 7.68.3.1 template<class Value > bool Oscl_Rb_Tree_Const_Iterator< Value >::operator!= (const self & x) [inline]

References Oscl_Rb_Tree_Const_Iterator< Value >::node.

- 7.68.3.2 template<class Value > reference Oscl_Rb_Tree_Const_Iterator< Value >::operator* () const [inline]

References Oscl_Rb_Tree_Const_Iterator< Value >::node.

Referenced by Oscl_Rb_Tree_Const_Iterator< Value >::operator->().

7.68.3.3 template<class Value > self Oscl_Rb_Tree_Const_Iterator< Value >::operator++ (int) [inline]

7.68.3.4 template<class Value > self& Oscl_Rb_Tree_Const_Iterator< Value >::operator++ () [inline]

References Oscl_Rb_Tree_Node_Base::left, Oscl_Rb_Tree_Const_Iterator< Value >::node, Oscl_Rb_Tree_Node_Base::parent, and Oscl_Rb_Tree_Node_Base::right.

7.68.3.5 template<class Value > self Oscl_Rb_Tree_Const_Iterator< Value >::operator-- (int) [inline]

7.68.3.6 template<class Value > self& Oscl_Rb_Tree_Const_Iterator< Value >::operator-- () [inline]

References Oscl_Rb_Tree_Node_Base::color, Oscl_Rb_Tree_Node_Base::left, Oscl_Rb_Tree_Const_Iterator< Value >::node, Oscl_Rb_Tree_Node_Base::parent, Oscl_Rb_Tree_Node_Base::red, and Oscl_Rb_Tree_Node_Base::right.

7.68.3.7 template<class Value > pointer Oscl_Rb_Tree_Const_Iterator< Value >::operator-> () const [inline]

References Oscl_Rb_Tree_Const_Iterator< Value >::operator*().

7.68.3.8 template<class Value > bool Oscl_Rb_Tree_Const_Iterator< Value >::operator==(const self & x) [inline]

References Oscl_Rb_Tree_Const_Iterator< Value >::node.

7.68.4 Field Documentation

7.68.4.1 template<class Value > base_link_type Oscl_Rb_Tree_Const_Iterator< Value >::node

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::find(), Oscl_Rb_Tree_Const_Iterator< Value >::operator!=(), Oscl_Rb_Tree_Const_Iterator< Value >::operator*(), Oscl_Rb_Tree_Const_Iterator< Value >::operator++(), Oscl_Rb_Tree_Const_Iterator< Value >::operator--(), Oscl_Rb_Tree_Const_Iterator< Value >::operator==(), and Oscl_Rb_Tree_Const_Iterator< Value >::Oscl_Rb_Tree_Const_Iterator().

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

- [oscl_tree.h](#)

7.69 Oscl_Rb_Tree_Iterator< Value > Struct Template Reference

```
#include <oscl_tree.h>
```

Public Types

- `typedef Value value_type`
- `typedef value_type & reference`
- `typedef value_type * pointer`
- `typedef Oscl_Rb_Tree_Iterator< Value > iterator`
- `typedef Oscl_Rb_Tree_Iterator< Value > self`
- `typedef Oscl_Rb_Tree_Node_Base * base_link_type`
- `typedef Oscl_Rb_Tree_Node< Value > * link_type`

Public Member Functions

- `Oscl_Rb_Tree_Iterator ()`
- `Oscl_Rb_Tree_Iterator (link_type x)`
- `Oscl_Rb_Tree_Iterator (const iterator &it)`
- `reference operator* () const`
- `pointer operator-> () const`
- `bool operator== (const self &x)`
- `bool operator!= (const self &x)`
- `self & operator++ ()`
- `self operator++ (int)`
- `self & operator-- ()`
- `self operator-- (int)`

Data Fields

- `base_link_type node`

```
template<class Value> struct Oscl_Rb_Tree_Iterator< Value >
```

7.69.1 Member Typedef Documentation

- 7.69.1.1 template<class Value > typedef Oscl_Rb_Tree_Node_Base* Oscl_Rb_Tree_Iterator< Value >::base_link_type
- 7.69.1.2 template<class Value > typedef Oscl_Rb_Tree_Iterator<Value> Oscl_Rb_Tree_Iterator< Value >::iterator
- 7.69.1.3 template<class Value > typedef Oscl_Rb_Tree_Node<Value>* Oscl_Rb_Tree_Iterator< Value >::link_type
- 7.69.1.4 template<class Value > typedef value_type* Oscl_Rb_Tree_Iterator< Value >::pointer
- 7.69.1.5 template<class Value > typedef value_type& Oscl_Rb_Tree_Iterator< Value >::reference
- 7.69.1.6 template<class Value > typedef Oscl_Rb_Tree_Iterator<Value> Oscl_Rb_Tree_Iterator< Value >::self
- 7.69.1.7 template<class Value > typedef Value Oscl_Rb_Tree_Iterator< Value >::value_type

7.69.2 Constructor & Destructor Documentation

- 7.69.2.1 template<class Value > Oscl_Rb_Tree_Iterator< Value >::Oscl_Rb_Tree_Iterator () [inline]
- 7.69.2.2 template<class Value > Oscl_Rb_Tree_Iterator< Value >::Oscl_Rb_Tree_Iterator (link_type *x*) [inline]

References Oscl_Rb_Tree_Iterator< Value >::node.

- 7.69.2.3 template<class Value > Oscl_Rb_Tree_Iterator< Value >::Oscl_Rb_Tree_Iterator (const iterator & *it*) [inline]

References Oscl_Rb_Tree_Iterator< Value >::node.

7.69.3 Member Function Documentation

- 7.69.3.1 template<class Value > bool Oscl_Rb_Tree_Iterator< Value >::operator!= (const self & *x*) [inline]

References Oscl_Rb_Tree_Iterator< Value >::node.

- 7.69.3.2 template<class Value > reference Oscl_Rb_Tree_Iterator< Value >::operator* () const [inline]

References Oscl_Rb_Tree_Iterator< Value >::node.

Referenced by Oscl_Rb_Tree_Iterator< Value >::operator->().

7.69.3.3 template<class Value > self Oscl_Rb_Tree_Iterator< Value >::operator++ (int) [inline]

7.69.3.4 template<class Value > self& Oscl_Rb_Tree_Iterator< Value >::operator++ () [inline]

References Oscl_Rb_Tree_Node_Base::left, Oscl_Rb_Tree_Iterator< Value >::node, Oscl_Rb_Tree_Node_Base::parent, and Oscl_Rb_Tree_Node_Base::right.

7.69.3.5 template<class Value > self Oscl_Rb_Tree_Iterator< Value >::operator-- (int) [inline]

7.69.3.6 template<class Value > self& Oscl_Rb_Tree_Iterator< Value >::operator-- () [inline]

References Oscl_Rb_Tree_Node_Base::color, Oscl_Rb_Tree_Node_Base::left, Oscl_Rb_Tree_Iterator< Value >::node, Oscl_Rb_Tree_Node_Base::parent, Oscl_Rb_Tree_Node_Base::red, and Oscl_Rb_Tree_Node_Base::right.

7.69.3.7 template<class Value > pointer Oscl_Rb_Tree_Iterator< Value >::operator-> () const [inline]

References Oscl_Rb_Tree_Iterator< Value >::operator*().

7.69.3.8 template<class Value > bool Oscl_Rb_Tree_Iterator< Value >::operator==(const self & x) [inline]

References Oscl_Rb_Tree_Iterator< Value >::node.

7.69.4 Field Documentation

7.69.4.1 template<class Value > base_link_type Oscl_Rb_Tree_Iterator< Value >::node

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::find(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::insert_unique(), Oscl_Rb_Tree_Iterator< Value >::operator!=(), Oscl_Rb_Tree_Iterator< Value >::operator*(), Oscl_Rb_Tree_Iterator< Value >::operator++(), Oscl_Rb_Tree_Iterator< Value >::operator--(), Oscl_Rb_Tree_Iterator< Value >::operator==(), and Oscl_Rb_Tree_Iterator< Value >::Oscl_Rb_Tree_Iterator().

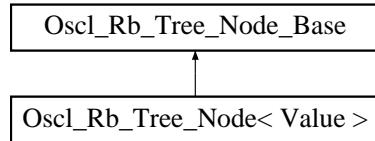
The documentation for this struct was generated from the following file:

- [oscl_tree.h](#)

7.70 Oscl_Rb_Tree_Node< Value > Struct Template Reference

#include <oscl_tree.h>

Inheritance diagram for Oscl_Rb_Tree_Node< Value >:



Public Types

- typedef Value [value_type](#)
- typedef [Oscl_Rb_Tree_Node< Value > *](#) [link_type](#)

Data Fields

- [value_type value](#)

template<class Value> struct Oscl_Rb_Tree_Node< Value >

7.70.1 Member Typedef Documentation

7.70.1.1 template<class Value> typedef Oscl_Rb_Tree_Node<Value>*> Oscl_Rb_Tree_Node< Value >::link_type

7.70.1.2 template<class Value> typedef Value Oscl_Rb_Tree_Node< Value >::value_type

7.70.2 Field Documentation

7.70.2.1 template<class Value> value_type Oscl_Rb_Tree_Node< Value >::value

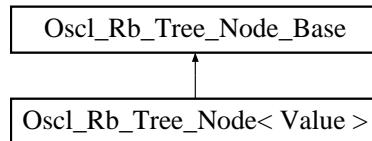
The documentation for this struct was generated from the following file:

- [oscl_tree.h](#)

7.71 Oscl_Rb_Tree_Node_Base Struct Reference

```
#include <oscl_tree.h>
```

Inheritance diagram for Oscl_Rb_Tree_Node_Base:



Public Types

- enum RedBl { red, black }
- typedef Oscl_Rb_Tree_Node_Base * base_link_type
- typedef enum Oscl_Rb_Tree_Node_Base::RedBl color_type

Static Public Member Functions

- static base_link_type minimum (base_link_type x)
- static base_link_type maximum (base_link_type x)

Data Fields

- color_type color
- base_link_type parent
- base_link_type left
- base_link_type right

7.71.1 Member Typedef Documentation

7.71.1.1 `typedef Oscl_Rb_Tree_Node_Base* Oscl_Rb_Tree_Node_Base::base_link_type`

7.71.1.2 `typedef enum Oscl_Rb_Tree_Node_Base::RedBl Oscl_Rb_Tree_Node_Base::color_type`

7.71.2 Member Enumeration Documentation

7.71.2.1 `enum Oscl_Rb_Tree_Node_Base::RedBl`

Enumerator:

red

black

7.71.3 Member Function Documentation

7.71.3.1 static base_link_type Oscl_Rb_Tree_Node_Base::maximum (base_link_type x)
[inline, static]

References right.

7.71.3.2 static base_link_type Oscl_Rb_Tree_Node_Base::minimum (base_link_type x)
[inline, static]

References left.

7.71.4 Field Documentation

7.71.4.1 color_type Oscl_Rb_Tree_Node_Base::color

Referenced by Oscl_Rb_Tree_Const_Iterator< Value >::operator--(), Oscl_Rb_Tree_Iterator< Value >::operator--(), and Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::Oscl_Rb_Tree().

7.71.4.2 base_link_type Oscl_Rb_Tree_Node_Base::left

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::insert_unique(), minimum(), Oscl_Rb_Tree_Const_Iterator< Value >::operator++(), Oscl_Rb_Tree_Iterator< Value >::operator++(), Oscl_Rb_Tree_Const_Iterator< Value >::operator--(), and Oscl_Rb_Tree_Iterator< Value >::operator--().

7.71.4.3 base_link_type Oscl_Rb_Tree_Node_Base::parent

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), Oscl_Rb_Tree_Const_Iterator< Value >::operator++(), Oscl_Rb_Tree_Iterator< Value >::operator++(), Oscl_Rb_Tree_Const_Iterator< Value >::operator--(), and Oscl_Rb_Tree_Iterator< Value >::operator--().

7.71.4.4 base_link_type Oscl_Rb_Tree_Node_Base::right

Referenced by Oscl_Rb_Tree< key_type, value_type, Oscl_Select1st< value_type, key_type >, key_compare, alloc_type >::erase(), maximum(), Oscl_Rb_Tree_Const_Iterator< Value >::operator++(), Oscl_Rb_Tree_Iterator< Value >::operator++(), Oscl_Rb_Tree_Const_Iterator< Value >::operator--(), and Oscl_Rb_Tree_Iterator< Value >::operator--().

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

- [oscl_tree.h](#)

7.72 Oscl_Select1st< V, U > Struct Template Reference

```
#include <oscl_map.h>
```

Public Member Functions

- const U & **operator()** (const V &x) const

```
template<class V, class U> struct Oscl_Select1st< V, U >
```

7.72.1 Member Function Documentation

```
7.72.1.1 template<class V , class U > const U& Oscl_Select1st< V, U >::operator() (const V & x)
      const [inline]
```

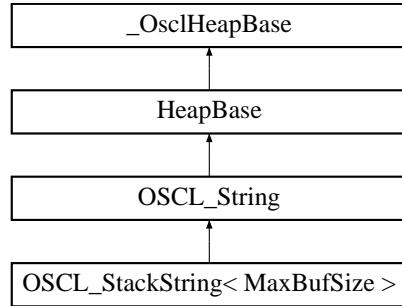
The documentation for this struct was generated from the following file:

- [oscl_map.h](#)

7.73 OSCL_StackString< MaxBufSize > Class Template Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_StackString< MaxBufSize >:



Public Types

- `typedef OSCL_String::chartype chartype`
- `typedef TOSCL_StringOp optype`
- `typedef OSCL_wString::chartype other_chartype`

Public Member Functions

- `OSCL_StackString()`
- `OSCL_StackString(const OSCL_StackString &src)`
- `OSCL_StackString(const OSCL_String &src)`
- `OSCL_StackString(const chartype *cstr)`
- `OSCL_StackString(const chartype *buf, uint32 length)`
- `~OSCL_StackString()`
- `uint32 get_size() const`
- `uint32 get_maxsize() const`
- `const chartype * get_cstr() const`
- `chartype * get_str() const`
- `OSCL_StackString & operator=(const OSCL_StackString &src)`
- `OSCL_StackString & operator=(const OSCL_String &src)`
- `OSCL_StackString & operator=(const chartype *cstr)`
- `void set(const chartype *buf, uint32 length)`
- `void set(const other_chartype *buf, optype op)`
- `void set(const other_chartype *buf, uint32 length, optype op)`

Friends

- `class OSCL_String`

7.73.1 Detailed Description

template<uint32 MaxBufSize> class OSCL_StackString< MaxBufSize >

[OSCL_StackString](#) is a simple string class, compatible with regular character array strings.

The string array is fixed length, is allocated from the stack, and is modifiable. Operations that update the string will automatically truncate it to fit the fixed size storage. This is recommended for use for short strings (<255). Use [OSCL_HeapString](#) for very large strings to avoid stack overflow.

Parameters

C,: type of character.

MaxBufSize,: maximum string length not including null terminator.

7.73.2 Member Typedef Documentation

7.73.2.1 template<uint32 MaxBufSize> typedef OSCL_String::chartype OSCL_StackString< MaxBufSize >::chartype

Reimplemented from [OSCL_String](#).

7.73.2.2 template<uint32 MaxBufSize> typedef TOSCL_StringOp OSCL_StackString< MaxBufSize >::optype

7.73.2.3 template<uint32 MaxBufSize> typedef OSCL_wString::chartype OSCL_StackString< MaxBufSize >::other_chartype

7.73.3 Friends And Related Function Documentation

7.73.3.1 template<uint32 MaxBufSize> friend class OSCL_String [friend]

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

- [oscl_string_containers.h](#)

7.74 oscl_stat_buf Struct Reference

```
#include <oscl_file_dir_utils.h>
```

Data Fields

- uint32 [mode](#)
- uint32 [perms](#)

7.74.1 Field Documentation

7.74.1.1 uint32 oscl_stat_buf::mode

7.74.1.2 uint32 oscl_stat_buf::perms

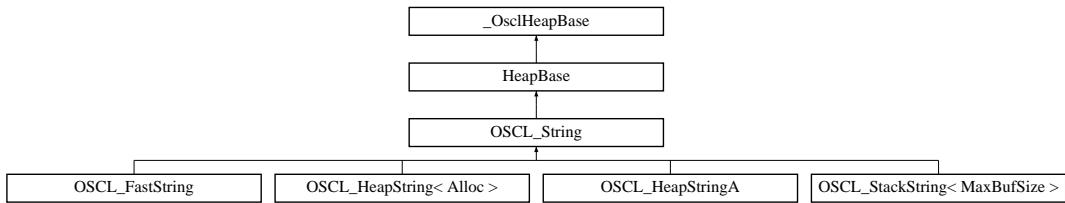
The documentation for this struct was generated from the following file:

- [oscl_file_dir_utils.h](#)

7.75 OSCL_String Class Reference

```
#include <oscl_string.h>
```

Inheritance diagram for OSCL_String:



Public Types

- `typedef char chartype`

Public Member Functions

- `virtual uint32 get_size () const =0`
- `virtual uint32 get_maxsize () const =0`
- `virtual const chartype * get_cstr () const =0`
- `virtual bool is_writable () const`
- `virtual chartype * get_str () const =0`
- `OSCL_String & operator=(const OSCL_String &src)`
- `OSCL_String & operator=(const chartype *cstr)`
- `OSCL_String & operator+=(const OSCL_String &src)`
- `OSCL_String & operator+=(const chartype *cstr)`
- `OSCL_String & operator+=(const chartype c)`
- `bool operator==(const OSCL_String &src) const`
- `bool operator!=(const OSCL_String &src) const`
- `bool operator<(const OSCL_String &src) const`
- `bool operator<=(const OSCL_String &src) const`
- `bool operator>(const OSCL_String &src) const`
- `bool operator>=(const OSCL_String &src) const`
- `bool operator==(const chartype *cstr) const`
- `chartype operator[] (uint32 index) const`
- `virtual chartype read (uint32 index) const`
- `virtual uint32 setrep_to_char (const oscl_wchar *src, uint32 len, TOSCL_StringOp op, Oscl_DefAlloc *aAlloc)`
- `virtual int8 hash () const`
- `virtual void write (uint32 index, chartype c)`
- `virtual void write (uint32 offset, uint32 length, const chartype *buf)`

Protected Member Functions

- `OSCL_String()`
- virtual `~OSCL_String()`
- virtual void `set_rep(const chartype *cstr)=0`
- virtual void `append_rep(const chartype *cstr)=0`
- virtual void `set_rep(const OSCL_String &src)=0`
- virtual void `append_rep(const OSCL_String &src)=0`
- virtual void `set_len(uint32 len)=0`

7.75.1 Detailed Description

A common base class for string classes with "char" character format

7.75.2 Member Typedef Documentation

7.75.2.1 `typedef char OSCL_String::chartype`

Reimplemented in `OSCL_HeapString< Alloc >`, `OSCL_HeapStringA`, `OSCL_StackString< MaxBufSize >`, `OSCL_FastString`, and `OSCL_HeapString< OsclMemAllocator >`.

7.75.3 Constructor & Destructor Documentation

7.75.3.1 `OSCL_String::OSCL_String()` [protected]

7.75.3.2 `virtual OSCL_String::~OSCL_String()` [protected, virtual]

7.75.4 Member Function Documentation

7.75.4.1 `virtual void OSCL_String::append_rep(const OSCL_String & src)` [protected, pure virtual]

Append the input string to the current string. The string may be truncated to fit the available storage.

7.75.4.2 `virtual void OSCL_String::append_rep(const chartype * cstr)` [protected, pure virtual]

Append the input null-terminated string to the current string. The string may be truncated to fit the available storage.

7.75.4.3 `virtual const chartype* OSCL_String::get_cstr() const` [pure virtual]

This function returns the C-style string for read access.

Implemented in `OSCL_HeapString< Alloc >`, `OSCL_HeapStringA`, `OSCL_StackString< MaxBufSize >`, `OSCL_FastString`, and `OSCL_HeapString< OsclMemAllocator >`.

7.75.4.4 virtual uint32 OSCL_String::get_maxsize () const [pure virtual]

This function returns the maximum available storage size, not including null terminator. The maximum size may be larger than the current string size.

Implemented in [OSCL_HeapString< Alloc >](#), [OSCL_HeapStringA](#), [OSCL_StackString< MaxBufSize >](#), [OSCL_FastString](#), and [OSCL_HeapString< OsclMemAllocator >](#).

7.75.4.5 virtual uint32 OSCL_String::get_size () const [pure virtual]

This function returns the string size not including the null-terminator.

Implemented in [OSCL_HeapString< Alloc >](#), [OSCL_HeapStringA](#), [OSCL_StackString< MaxBufSize >](#), [OSCL_FastString](#), and [OSCL_HeapString< OsclMemAllocator >](#).

7.75.4.6 virtual chartype* OSCL_String::get_str () const [pure virtual]

This function returns the C-style string for write access. If the string is not writable it returns NULL.

Implemented in [OSCL_HeapString< Alloc >](#), [OSCL_HeapStringA](#), [OSCL_StackString< MaxBufSize >](#), [OSCL_FastString](#), and [OSCL_HeapString< OsclMemAllocator >](#).

7.75.4.7 virtual int8 OSCL_String::hash () const [virtual]

This function performs a hash operation on the string. If the string is not writable, the function leaves.

7.75.4.8 virtual bool OSCL_String::is_writable () const [virtual]

This function returns true if the string is writable.

7.75.4.9 bool OSCL_String::operator!= (const OSCL_String & src) const**7.75.4.10 OSCL_String& OSCL_String::operator+= (const chartype c)**

Append operator. This operator appends the input character to this object. The string may be truncated to fit available storage.

7.75.4.11 OSCL_String& OSCL_String::operator+= (const chartype * cstr)

Append operator. This operator appends the input string to this object. The string may be truncated to fit available storage.

Parameters

null-terminated string

7.75.4.12 OSCL_String& OSCL_String::operator+= (const OSCL_String & src)

Append operator. This operator appends the input string to this object. The string may be truncated to fit available storage.

7.75.4.13 bool OSCL_String::operator< (const OSCL_String & src) const

7.75.4.14 bool OSCL_String::operator<= (const OSCL_String & src) const

7.75.4.15 OSCL_String& OSCL_String::operator= (const chartype * cstr)

Assignment operator

Parameters

null-terminated string

Reimplemented in [OSCL_HeapString< Alloc >](#), [OSCL_HeapStringA](#), [OSCL_StackString< MaxBufSize >](#), [OSCL_FastString](#), and [OSCL_HeapString< OsclMemAllocator >](#).

7.75.4.16 OSCL_String& OSCL_String::operator= (const OSCL_String & src)

Assignment operator

Reimplemented in [OSCL_HeapString< Alloc >](#), [OSCL_HeapStringA](#), [OSCL_StackString< MaxBufSize >](#), and [OSCL_HeapString< OsclMemAllocator >](#).

7.75.4.17 bool OSCL_String::operator== (const chartype * cstr) const

Comparison operator

Parameters

null-terminated string

7.75.4.18 bool OSCL_String::operator== (const OSCL_String & src) const

Comparison operators

7.75.4.19 bool OSCL_String::operator> (const OSCL_String & src) const

7.75.4.20 bool OSCL_String::operator>= (const OSCL_String & src) const

7.75.4.21 chartype OSCL_String::operator[] (uint32 index) const

This is subscript notation to access a character at the given position. If the index is outside the current size range then the function leaves.

7.75.4.22 virtual chartype OSCL_String::read (uint32 index) const [virtual]

This function returns the character at the given position. If the index is outside the current size range then the function leaves.

7.75.4.23 virtual void OSCL_String::set_len (uint32 len) [protected, pure virtual]

Update the length of the string. This function will only be called when the string is writable.

7.75.4.24 virtual void OSCL_String::set_rep (const OSCL_String & src) [protected, pure virtual]

Set string representation to input string.

7.75.4.25 virtual void OSCL_String::set_rep (const chartype * cstr) [protected, pure virtual]

Each representation class must implement these pure virtuals. Set string representation to input null-terminated string.

7.75.4.26 virtual uint32 OSCL_String::setrep_to_char (const oscl_wchar * src, uint32 len, TOSCL_StringOp op, Oscl_DefAlloc * aAlloc) [virtual]

This function allocates a temp storage for performing one of the following operations based on TOSCL_StringOp

- compress src string from oscl_wchar to utf8.
- convert src string from oscl_wchar to utf8. call parent [set_rep\(\)](#) to copy resulting string.

Parameters

src,: reference input string
len,: length of string to operate on
op,: type operation mentioned above
aAlloc,: optional, memory allocator if available

Returns

length of compressed or converted string exclude terminated ”.

Referenced by OSCL_StackString< MaxBufSize >::set(), and OSCL_HeapString< Alloc >::set().

7.75.4.27 virtual void OSCL_String::write (uint32 offset, uint32 length, const chartype * buf) [virtual]

This function replaces characters at the specified offset within the current string. If the string is not writable, the function leaves. The characters may be truncated to fit the current storage.

Parameters

offset,: the offset into the existing string buffer
length,: number of characters to copy.
ptr,: character buffer, not necessarily null-terminated.

7.75.4.28 virtual void OSCL_String::write (uint32 index, chartype c) [virtual]

This function stores a character at the specified position. If the string is not writable, the function leaves. If the index is outside the current size range then the function leaves.

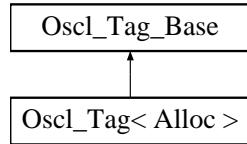
The documentation for this class was generated from the following file:

- [oscl_string.h](#)

7.76 Oscl_Tag< Alloc > Struct Template Reference

```
#include <oscl_tagtree.h>
```

Inheritance diagram for Oscl_Tag< Alloc >:



Public Member Functions

- `Oscl_Tag (const Oscl_Tag< Alloc > &t)`
- `Oscl_Tag (const tag_base_type &t)`
- `~Oscl_Tag ()`
- `bool operator< (const Oscl_Tag< Alloc > &x) const`

Data Fields

- `Oscl_TAlloc< tag_base_unit, Alloc > tagAllocator`
- `tag_base_type tag`

`template<class Alloc> struct Oscl_Tag< Alloc >`

7.76.1 Constructor & Destructor Documentation

7.76.1.1 `template<class Alloc> Oscl_Tag< Alloc >::Oscl_Tag (const Oscl_Tag< Alloc > & t) [inline]`

References `Oscl_Tag< Alloc >::tag`, `Oscl_Tag_Base::tag_copy()`, `Oscl_Tag_Base::tag_len()`, and `Oscl_Tag< Alloc >::tagAllocator`.

7.76.1.2 `template<class Alloc> Oscl_Tag< Alloc >::Oscl_Tag (const tag_base_type & t) [inline]`

References `Oscl_Tag< Alloc >::tag`, `Oscl_Tag_Base::tag_copy()`, `Oscl_Tag_Base::tag_len()`, and `Oscl_Tag< Alloc >::tagAllocator`.

7.76.1.3 `template<class Alloc> Oscl_Tag< Alloc >::~Oscl_Tag () [inline]`

References `Oscl_TAlloc< T, Alloc >::deallocate()`, `Oscl_Tag< Alloc >::tag`, and `Oscl_Tag< Alloc >::tagAllocator`.

7.76.2 Member Function Documentation

7.76.2.1 template<class Alloc> bool Oscl_Tag< Alloc >::operator<(const Oscl_Tag< Alloc > & x) const [inline]

References Oscl_Tag< Alloc >::tag, and Oscl_Tag_Base::tag_cmp().

7.76.3 Field Documentation

7.76.3.1 template<class Alloc> tag_base_type Oscl_Tag< Alloc >::tag

Referenced by Oscl_TagTree< T, Alloc >::Node::depth(), Oscl_TagTree< PVLogger *, alloc_type >::insert(), Oscl_Tag< Alloc >::operator<(), Oscl_Tag< Alloc >::Oscl_Tag(), and Oscl_Tag< Alloc >::~Oscl_Tag().

7.76.3.2 template<class Alloc> Oscl_TAlloc<tag_base_unit, Alloc> Oscl_Tag< Alloc >::tagAllocator

Referenced by Oscl_Tag< Alloc >::Oscl_Tag(), and Oscl_Tag< Alloc >::~Oscl_Tag().

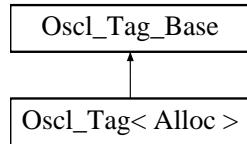
The documentation for this struct was generated from the following file:

- [oscl_tagtree.h](#)

7.77 Oscl_Tag_Base Struct Reference

```
#include <oscl_tagtree.h>
```

Inheritance diagram for Oscl_Tag_Base:



Public Types

- `typedef char tag_base_unit`
- `typedef tag_base_unit * tag_base_type`
- `typedef uint32 size_type`

Public Member Functions

- `bool operator() (const tag_base_type &x, const tag_base_type &y) const`
- `size_type tag_len (const tag_base_type &t) const`
- `tag_base_type tag_copy (tag_base_type &dest, const tag_base_type &src) const`
- `int32 tag_cmp (const tag_base_type &x, const tag_base_type &y) const`
- `OSCL_IMPORT_REF tag_base_type tag_ancestor (tag_base_type &dest, const tag_base_type &src) const`
- `OSCL_IMPORT_REF size_type tag_depth (const tag_base_type &t) const`

7.77.1 Member Typedef Documentation

7.77.1.1 `typedef uint32 Oscl_Tag_Base::size_type`

7.77.1.2 `typedef tag_base_unit* Oscl_Tag_Base::tag_base_type`

7.77.1.3 `typedef char Oscl_Tag_Base::tag_base_unit`

7.77.2 Member Function Documentation

7.77.2.1 `bool Oscl_Tag_Base::operator() (const tag_base_type & x, const tag_base_type & y) const [inline]`

References `tag_cmp()`.

7.77.2.2 `OSCL_IMPORT_REF tag_base_type Oscl_Tag_Base::tag_ancestor (tag_base_type & dest, const tag_base_type & src) const`

Referenced by `Oscl_TagTree< PVLogger *, alloc_type >::insert()`.

7.77.2.3 int32 Oscl_Tag_Base::tag_cmp (const tag_base_type & x, const tag_base_type & y) const [inline]

References oscl_strlen(), and oscl_strncmp().

Referenced by operator()(), and Oscl_Tag< Alloc >::operator<().

7.77.2.4 tag_base_type Oscl_Tag_Base::tag_copy (tag_base_type & dest, const tag_base_type & src) const [inline]

References oscl_strlen(), and oscl_strncpy().

Referenced by Oscl_Tag< Alloc >::Oscl_Tag().

7.77.2.5 OSCL_IMPORT_REF size_type Oscl_Tag_Base::tag_depth (const tag_base_type & t) const

Referenced by Oscl_TagTree< T, Alloc >::Node::depth(), and Oscl_TagTree< PVLogger *, alloc_type >::insert().

7.77.2.6 size_type Oscl_Tag_Base::tag_len (const tag_base_type & t) const [inline]

References oscl_strlen().

Referenced by Oscl_Tag< Alloc >::Oscl_Tag().

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

- [oscl_tagtree.h](#)

7.78 Oscl_TagTree< T, Alloc > Class Template Reference

```
#include <oscl_tagtree.h>
```

Data Structures

- struct [const_iterator](#)
- struct [iterator](#)
- struct [Node](#)

Public Types

- typedef [Oscl_Tag< Alloc > tag_type](#)
- typedef [tag_type::tag_base_type tag_base_type](#)
- typedef [Oscl_Vector< Node *, Alloc > children_type](#)
- typedef [Node node_type](#)
- typedef [node_type * node_ptr](#)
- typedef [Oscl_Map< const tag_base_type, node_ptr, Alloc, Oscl_Tag_Base > map_type](#)
- typedef [map_type::size_type size_type](#)
- typedef [map_type::value_type value_type](#)
- typedef [Oscl_Pair< iterator, bool > pair_iterator_bool](#)

Public Member Functions

- [Oscl_TagTree \(size_type max_depth=0\)](#)
- [Oscl_TagTree \(const Oscl_TagTree< T, Alloc > &x\)](#)
- [Oscl_TagTree< T, Alloc > & operator= \(const Oscl_TagTree< T, Alloc > &x\)](#)
- [~Oscl_TagTree \(\)](#)
- [iterator begin \(\)](#)
- [const_iterator begin \(\) const](#)
- [iterator end \(\)](#)
- [const_iterator end \(\) const](#)
- [bool empty \(\) const](#)
- [size_type size \(\) const](#)
- [T & operator\[\] \(const tag_base_type &t\)](#)
- [pair_iterator_bool insert \(const tag_base_type &t, const T &x\)](#)
- [void erase \(iterator position\)](#)
- [size_type erase \(const tag_base_type &x\)](#)
- [void clear \(\)](#)
- [iterator find \(const tag_base_type &x\)](#)
- [size_type count \(const tag_base_type &x\) const](#)

7.78.1 Detailed Description

template<class T, class Alloc> class Oscl_TagTree< T, Alloc >

[Oscl_TagTree](#) Class.

7.78.2 Member Typedef Documentation

- 7.78.2.1 `template<class T, class Alloc> typedef Oscl_Vector<Node*, Alloc> Oscl_TagTree< T, Alloc >::children_type`
- 7.78.2.2 `template<class T, class Alloc> typedef Oscl_Map<const tag_base_type, node_ptr, Alloc, Oscl_Tag_Base> Oscl_TagTree< T, Alloc >::map_type`
- 7.78.2.3 `template<class T, class Alloc> typedef node_type* Oscl_TagTree< T, Alloc >::node_ptr`
- 7.78.2.4 `template<class T, class Alloc> typedef Node Oscl_TagTree< T, Alloc >::node_type`
- 7.78.2.5 `template<class T, class Alloc> typedef Oscl_Pair<iterator, bool> Oscl_TagTree< T, Alloc >::pair_iterator_bool`
- 7.78.2.6 `template<class T, class Alloc> typedef map_type::size_type Oscl_TagTree< T, Alloc >::size_type`
- 7.78.2.7 `template<class T, class Alloc> typedef tag_type::tag_base_type Oscl_TagTree< T, Alloc >::tag_base_type`
- 7.78.2.8 `template<class T, class Alloc> typedef Oscl_Tag<Alloc> Oscl_TagTree< T, Alloc >::tag_type`
- 7.78.2.9 `template<class T, class Alloc> typedef map_type::value_type Oscl_TagTree< T, Alloc >::value_type`

7.78.3 Constructor & Destructor Documentation

- 7.78.3.1 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::Oscl_TagTree (size_type max_depth = 0) [inline]`

Creates a tag tree with only a root node with tag ""

- 7.78.3.2 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::Oscl_TagTree (const Oscl_TagTree< T, Alloc > & x) [inline]`

Copy constructor

- 7.78.3.3 `template<class T, class Alloc> Oscl_TagTree< T, Alloc >::~Oscl_TagTree () [inline]`

Destructor

7.78.4 Member Function Documentation

- 7.78.4.1 `template<class T, class Alloc> const_iterator Oscl_TagTree< T, Alloc >::begin () const [inline]`

Returns an iterator pointing to the first node in the tree.

7.78.4.2 template<class T, class Alloc> iterator Oscl_TagTree< T, Alloc >::begin () [inline]

Returns an iterator pointing to the first node in the tree.

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::clear(), Oscl_TagTree< PVLogger *, alloc_type >::operator=(), Oscl_TagTree< PVLogger *, alloc_type >::Oscl_TagTree(), and Oscl_TagTree< PVLogger *, alloc_type >::~Oscl_TagTree().

7.78.4.3 template<class T, class Alloc> void Oscl_TagTree< T, Alloc >::clear () [inline]

Erases the entire tag tree.

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::operator=().

7.78.4.4 template<class T, class Alloc> size_type Oscl_TagTree< T, Alloc >::count (const tag_base_type & x) const [inline]

Finds an element whose key is x Returns the number of elements with key x. This can only be 0 or 1..

7.78.4.5 template<class T, class Alloc> bool Oscl_TagTree< T, Alloc >::empty () const [inline]

Returns true if tree size is 0

7.78.4.6 template<class T, class Alloc> const_iterator Oscl_TagTree< T, Alloc >::end () const [inline]

Returns a const iterator pointing to the end of the tree.

7.78.4.7 template<class T, class Alloc> iterator Oscl_TagTree< T, Alloc >::end () [inline]

Returns an iterator pointing to the end of the tree.

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::clear(), Oscl_TagTree< PVLogger *, alloc_type >::erase(), Oscl_TagTree< PVLogger *, alloc_type >::insert(), Oscl_TagTree< PVLogger *, alloc_type >::operator=(), Oscl_TagTree< PVLogger *, alloc_type >::Oscl_TagTree(), and Oscl_TagTree< PVLogger *, alloc_type >::~Oscl_TagTree().

7.78.4.8 template<class T, class Alloc> size_type Oscl_TagTree< T, Alloc >::erase (const tag_base_type & x) [inline]

Erases the node with tag x. If the node has children, then the node will not be erased from the tree. It will be replaced with the default node value

Parameters

x Tag of node to erase

Returns

Returns the number of nodes erased. Since one-to-one mapping between nodes and tags, this will be either 0 or 1

7.78.4.9 template<class T, class Alloc> void Oscl_TagTree< T, Alloc >::erase (iterator *position*) [inline]

Erases the element pointed to by the iterator. If the node has children, then the node will not be erased from the tree. It will be replaced with the default node value.

Parameters

position Iterator pointing to the node to be erased

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::erase().

7.78.4.10 template<class T, class Alloc> iterator Oscl_TagTree< T, Alloc >::find (const tag_base_type & *x*) [inline]

Finds an element whose key is *x*

Returns

returns an iterator to the element with key *x*. If no element is found, returns [end\(\)](#)

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::erase().

7.78.4.11 template<class T, class Alloc> pair<iterator, bool> Oscl_TagTree< T, Alloc >::insert (const tag_base_type & *t*, const T & *x*) [inline]

Inserts *x* into the tree and associates it with tag *t*. If the tag already exists *x* will not be inserted, and an iterator pointing to the existing node with tag *t* is returned.

Parameters

t tag to use

x element to insert

Returns

Returns a pair of parameters, iterator and bool. The iterator points to the inserted node containing *x*. If the tag *t* already existed, then the iterator points to the node associated with tag *t*. The bool is true if *x* was inserted and false if it was not inserted due to an existing node with tag *t*.

Referenced by Oscl_TagTree< PVLogger *, alloc_type >::operator=(), Oscl_TagTree< PVLogger *, alloc_type >::operator[](), and Oscl_TagTree< PVLogger *, alloc_type >::Oscl_TagTree().

7.78.4.12 template<class T, class Alloc> Oscl_TagTree< T, Alloc >& Oscl_TagTree< T, Alloc >::operator= (const Oscl_TagTree< T, Alloc > & *x*) [inline]

Assignment operator

7.78.4.13 template<class T, class Alloc> T& Oscl_TagTree< T, Alloc >::operator[] (const tag_base_type & *t*) [inline]

Returns a reference to the object that is associated with a particular tag. If the map does not already contain such an object, operator[] inserts the default object T().

**7.78.4.14 template<class T, class Alloc> size_type Oscl_TagTree< T, Alloc >::size () const
[inline]**

Returns the number of nodes stored in the tree

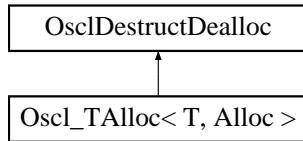
The documentation for this class was generated from the following file:

- [oscl_tagtree.h](#)

7.79 Oscl_TAlloc< T, Alloc > Class Template Reference

```
#include <oscl_defalloc.h>
```

Inheritance diagram for Oscl_TAlloc< T, Alloc >:



Data Structures

- struct [rebind](#)

Public Types

- typedef T [value_type](#)
- typedef T * [pointer](#)
- typedef const T * [const_pointer](#)
- typedef uint32 [size_type](#)
- typedef T & [reference](#)
- typedef const T & [const_reference](#)

Public Member Functions

- virtual [~Oscl_TAlloc \(\)](#)
- [pointer allocate_fl \(uint32 size, const char *file_name, const int line_num\)](#)
- [pointer allocate \(uint32 size\)](#)
- [pointer alloc_and_construct_fl \(const_reference val, const char *file_name, const int line_num\)](#)
- [pointer alloc_and_construct \(const_reference val\)](#)
- [void deallocate \(OsclAny *p\)](#)
- [void deallocate \(OsclAny *p, size_type n\)](#)
- [void destruct_and_dealloc \(OsclAny *p\)](#)
- [pointer address \(reference r\)](#)
- [const_pointer address \(const_reference r\) const](#)
- [void construct \(pointer p, const_reference val\)](#)
- [void destroy \(pointer p\)](#)

`template<class T, class Alloc> class Oscl_TAlloc< T, Alloc >`

7.79.1 Member Typedef Documentation

- 7.79.1.1 `template<class T, class Alloc> typedef const T* Oscl_TAlloc< T, Alloc >::const_pointer`
- 7.79.1.2 `template<class T, class Alloc> typedef const T& Oscl_TAlloc< T, Alloc >::const_reference`
- 7.79.1.3 `template<class T, class Alloc> typedef T* Oscl_TAlloc< T, Alloc >::pointer`
- 7.79.1.4 `template<class T, class Alloc> typedef T& Oscl_TAlloc< T, Alloc >::reference`
- 7.79.1.5 `template<class T, class Alloc> typedef uint32 Oscl_TAlloc< T, Alloc >::size_type`
- 7.79.1.6 `template<class T, class Alloc> typedef T Oscl_TAlloc< T, Alloc >::value_type`

7.79.2 Constructor & Destructor Documentation

- 7.79.2.1 `template<class T, class Alloc> virtual Oscl_TAlloc< T, Alloc >::~Oscl_TAlloc () [inline, virtual]`

7.79.3 Member Function Documentation

- 7.79.3.1 `template<class T, class Alloc> const_pointer Oscl_TAlloc< T, Alloc >::address (const_reference r) const [inline]`
- 7.79.3.2 `template<class T, class Alloc> pointer Oscl_TAlloc< T, Alloc >::address (reference r) [inline]`
- 7.79.3.3 `template<class T, class Alloc> pointer Oscl_TAlloc< T, Alloc >::alloc_and_construct (const_reference val) [inline]`
- 7.79.3.4 `template<class T, class Alloc> pointer Oscl_TAlloc< T, Alloc >::alloc_and_construct_fl (const_reference val, const char *file_name, const int line_num) [inline]`
- 7.79.3.5 `template<class T, class Alloc> pointer Oscl_TAlloc< T, Alloc >::allocate (uint32 size) [inline]`

Referenced by MM_AllocNode::operator new(), MM_AllocInfo::operator new(), MM_Stats_CB::operator new(), OsclMemStatsNode::operator new(), MM_FailInsertParam::operator new(), and MM_Stats_t::operator new().

- 7.79.3.6 `template<class T, class Alloc> pointer Oscl_TAlloc< T, Alloc >::allocate_fl (uint32 size, const char *file_name, const int line_num) [inline]`
- 7.79.3.7 `template<class T, class Alloc> void Oscl_TAlloc< T, Alloc >::construct (pointer p, const_reference val) [inline]`

Referenced by Oscl_TAlloc< node_type, Alloc >::alloc_and_construct(), and Oscl_TAlloc< node_type, Alloc >::alloc_and_construct_fl().

7.79.3.8 template<class T, class Alloc> void Oscl_TAlloc< T, Alloc >::deallocate (OsclAny * *p*, size_type *n*) [inline]

7.79.3.9 template<class T, class Alloc> void Oscl_TAlloc< T, Alloc >::deallocate (OsclAny * *p*) [inline]

Referenced by OsclTimer< Alloc >::Cancel(), OsclTimer< Alloc >::Clear(), Oscl_TAlloc< node_type, Alloc >::destruct_and_dealloc(), MM_AllocNode::operator delete(), MM_AllocInfo::operator delete(), MM_Stats_CB::operator delete(), OsclMemStatsNode::operator delete(), MM_FailInsertParam::operator delete(), MM_Stats_t::operator delete(), OsclTimer< Alloc >::TimerBaseElapsed(), MM_AllocInfo::~MM_AllocInfo(), Oscl_Tag< Alloc >::~Oscl_Tag(), OsclMemStatsNode::~OsclMemStatsNode(), OsclTimer< Alloc >::~OsclTimer(), and PVLogger::~PVLogger().

7.79.3.10 template<class T, class Alloc> void Oscl_TAlloc< T, Alloc >::destroy (pointer *p*) [inline]

Referenced by Oscl_TAlloc< node_type, Alloc >::destruct_and_dealloc().

7.79.3.11 template<class T, class Alloc> void Oscl_TAlloc< T, Alloc >::destruct_and_dealloc (OsclAny * *p*) [inline, virtual]

Implements [OsclDestructDealloc](#).

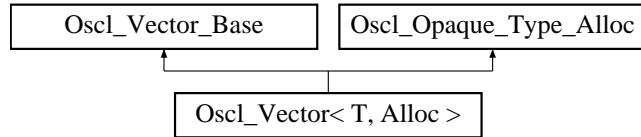
The documentation for this class was generated from the following file:

- [oscl_defalloc.h](#)

7.80 Oscl_Vector< T, Alloc > Class Template Reference

```
#include <oscl_vector.h>
```

Inheritance diagram for Oscl_Vector< T, Alloc >:



Public Types

- `typedef T value_type`
- `typedef T * pointer`
- `typedef T & reference`
- `typedef const T & const_reference`
- `typedef T * iterator`
- `typedef const T * const_iterator`

Public Member Functions

- `Oscl_Vector ()`
- `Oscl_Vector (uint32 n)`
- `Oscl_Vector (const Oscl_Vector< T, Alloc > &x)`
- `virtual ~Oscl_Vector ()`
- `Oscl_Vector< T, Alloc > & operator= (const Oscl_Vector< T, Alloc > &x)`
- `void push_back (const T &x)`
- `void push_front (const T &x)`
- `iterator insert (iterator pos, const T &x)`
- `T & operator[] (uint32 n)`
- `const T & operator[] (uint32 n) const`
- `T & front ()`
- `const T & front () const`
- `T & back ()`
- `const T & back () const`
- `void pop_back ()`
- `void clear ()`
- `void destroy ()`
- `iterator begin () const`
- `iterator end () const`
- `iterator erase (iterator pos)`
- `iterator erase (iterator first, iterator last)`

7.80.1 Detailed Description

template<class T, class Alloc> class Oscl_Vector< T, Alloc >

Oscl_Vector Class. A subset of STL::Vector methods. **Oscl_Vector** supports random access to elements, constant time insertion and removal of elements at the end of the vector, and linear time insertion and removal of elements at the beginning or middle of the vector. The number of elements in a vector can vary dynamically, and memory management is performed automatically.

7.80.2 Member Typedef Documentation

7.80.2.1 template<class T, class Alloc> typedef const T* Oscl_Vector< T, Alloc >::const_iterator

7.80.2.2 template<class T, class Alloc> typedef const T& Oscl_Vector< T, Alloc >::const_reference

7.80.2.3 template<class T, class Alloc> typedef T* Oscl_Vector< T, Alloc >::iterator

7.80.2.4 template<class T, class Alloc> typedef T* Oscl_Vector< T, Alloc >::pointer

7.80.2.5 template<class T, class Alloc> typedef T& Oscl_Vector< T, Alloc >::reference

7.80.2.6 template<class T, class Alloc> typedef T Oscl_Vector< T, Alloc >::value_type

7.80.3 Constructor & Destructor Documentation

7.80.3.1 template<class T, class Alloc> Oscl_Vector< T, Alloc >::Oscl_Vector () [inline]

Creates an empty vector.

7.80.3.2 template<class T, class Alloc> Oscl_Vector< T, Alloc >::Oscl_Vector (uint32 n) [inline]

Creates an empty vector with capacity n.

Parameters

n creates a vector with n elements. The main reason for specifying n is efficiency. If you know the capacity to which your vector must grow, then it is more efficient to allocate the vector all at once rather than rely on the automatic reallocation scheme. This also helps control the invalidation of iterators.

7.80.3.3 template<class T, class Alloc> Oscl_Vector< T, Alloc >::Oscl_Vector (const Oscl_Vector< T, Alloc > & x) [inline]

Copy Constructor.

Parameters

x vector class to copy.

**7.80.3.4 template<class T, class Alloc> virtual Oscl_Vector< T, Alloc >::~Oscl_Vector ()
[inline, virtual]**

The destructor.

7.80.4 Member Function Documentation

**7.80.4.1 template<class T, class Alloc> const T& Oscl_Vector< T, Alloc >::back () const
[inline]**

Returns the last element.

7.80.4.2 template<class T, class Alloc> T& Oscl_Vector< T, Alloc >::back () [inline]

Returns the last element.

**7.80.4.3 template<class T, class Alloc> iterator Oscl_Vector< T, Alloc >::begin () const
[inline]**

Returns an iterator pointing to the beginning of the vector.

Reimplemented from [Oscl_Vector_Base](#).

Referenced by OsclTimer< Alloc >::Cancel(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::clear(), OsclTimer< Alloc >::Clear(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::front(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::operator[](), PVLogger::RemoveAppender(), Oscl_TagTree< T, Alloc >::Node::sort_children(), OsclTimer< Alloc >::TimerBaseElapsed(), and OsclTimer< Alloc >::~OsclTimer().

7.80.4.4 template<class T, class Alloc> void Oscl_Vector< T, Alloc >::clear () [inline]

Removes all elements.

Referenced by OsclTimer< Alloc >::Clear(), and OsclTimer< Alloc >::TimerBaseElapsed().

7.80.4.5 template<class T, class Alloc> void Oscl_Vector< T, Alloc >::destroy () [inline]

Destroy -- this is like an explicit destructor call.

Reimplemented from [Oscl_Vector_Base](#).

Referenced by Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::destroy(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::pop_back(), and Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::~Oscl_Vector().

**7.80.4.6 template<class T, class Alloc> iterator Oscl_Vector< T, Alloc >::end () const
[inline]**

Returns an iterator pointing to the end of the vector..

Reimplemented from [Oscl_Vector_Base](#).

Referenced by Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::back(), OsclTimer< Alloc >::Cancel(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::clear(), OsclTimer< Alloc >::Clear(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::pop_back(), PVLogger::RemoveAppender(), Oscl_TagTree< T, Alloc >::Node::sort_children(), OsclTimer< Alloc >::TimerBaseElapsed(), and OsclTimer< Alloc >::~OsclTimer().

7.80.4.7 template<class T, class Alloc> iterator Oscl_Vector< T, Alloc >::erase (iterator *first*, iterator *last*) [inline]

Erases elements in range [*first*, *last*). Erasing an element invalidates all iterators pointing to elements following the deletion point.

Parameters

first starting position

last ending position, this position is not erased

7.80.4.8 template<class T, class Alloc> iterator Oscl_Vector< T, Alloc >::erase (iterator *pos*) [inline]

Erases the element pointed to by iterator *pos*. Erasing an element invalidates all iterators pointing to elements following the deletion point.

Parameters

pos iterator at erase position

Referenced by OsclTimer< Alloc >::Cancel(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::clear(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::erase(), PVLogger::RemoveAppender(), and OsclTimer< Alloc >::TimerBaseElapsed().

7.80.4.9 template<class T, class Alloc> const T& Oscl_Vector< T, Alloc >::front () const [inline]

Returns the first element.

7.80.4.10 template<class T, class Alloc> T& Oscl_Vector< T, Alloc >::front () [inline]

Returns the first element.

7.80.4.11 template<class T, class Alloc> iterator Oscl_Vector< T, Alloc >::insert (iterator *pos*, const T & *x*) [inline]

Inserts a new element before the one at *pos*.

Parameters

pos position at which to insert the new element.

x new element

Referenced by Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::insert().

7.80.4.12 template<class T, class Alloc> Oscl_Vector<T, Alloc>& Oscl_Vector< T, Alloc >::operator= (const Oscl_Vector< T, Alloc > &x) [inline]

The assignment operator

7.80.4.13 template<class T, class Alloc> const T& Oscl_Vector< T, Alloc >::operator[] (uint32 n) const [inline]

Returns the n'th element.

Parameters

n element position to return

7.80.4.14 template<class T, class Alloc> T& Oscl_Vector< T, Alloc >::operator[] (uint32 n) [inline]

Returns the n'th element.

Parameters

n element position to return

7.80.4.15 template<class T, class Alloc> void Oscl_Vector< T, Alloc >::pop_back () [inline]

Removes the last element.

Reimplemented from [Oscl_Vector_Base](#).

7.80.4.16 template<class T, class Alloc> void Oscl_Vector< T, Alloc >::push_back (const T &x) [inline]

Inserts a new element at the end. Inserting an element invalidates all iterators if memory reallocation occurs as a result of the insertion.

Parameters

x new element

Referenced by PVLogger::AddAppender(), PVLogger::AddFilter(), Oscl_File::AddFixedCache(), OsclTimer< Alloc >::Cancel(), GetHostNameParam::PersistHostAddress(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::push_back(), Oscl_File::RemoveFixedCache(), and OsclTimer< Alloc >::Request().

7.80.4.17 template<class T, class Alloc> void Oscl_Vector< T, Alloc >::push_front (const T &x) [inline]

Inserts a new element at the front. Inserting an element invalidates all iterators if memory reallocation occurs as a result of the insertion.

Parameters

x new element

Referenced by Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::push_front().

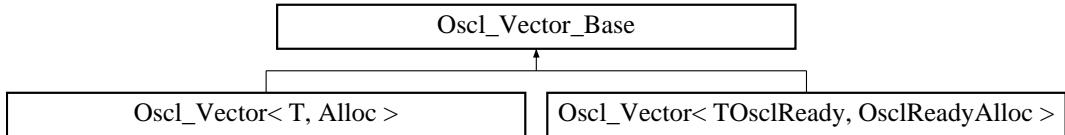
The documentation for this class was generated from the following file:

- [oscl_vector.h](#)

7.81 Oscl_Vector_Base Class Reference

```
#include <oscl_vector.h>
```

Inheritance diagram for Oscl_Vector_Base:



Public Member Functions

- uint32 `size () const`
- uint32 `capacity () const`
- bool `empty () const`
- OSCL_IMPORT_REF void `reserve (uint32 n)`

Protected Member Functions

- OSCL_IMPORT_REF void `construct (Oscl_Opaque_Type_Alloc *aType)`
- OSCL_IMPORT_REF void `construct (Oscl_Opaque_Type_Alloc *aType, uint32 n)`
- OSCL_IMPORT_REF void `construct (Oscl_Opaque_Type_Alloc *aType, const Oscl_Vector_Base &x)`
- virtual `~Oscl_Vector_Base ()`
- OSCL_IMPORT_REF void `push_back (const OsclAny *x)`
- OSCL_IMPORT_REF void `pop_back ()`
- OSCL_IMPORT_REF void `push_front (const OsclAny *x)`
- OSCL_IMPORT_REF `OsclAny * insert (OsclAny *pos, const OsclAny *x)`
- OSCL_IMPORT_REF `OsclAny * erase (OsclAny *pos)`
- OSCL_IMPORT_REF `OsclAny * erase (OsclAny *first, OsclAny *last)`
- OSCL_IMPORT_REF void `assign_vector (const Oscl_Vector_Base &x)`
- OSCL_IMPORT_REF void `destroy ()`

Protected Attributes

- uint32 `numelems`
- uint32 `bufsize`
- `OsclAny * elems`
- uint32 `sizeof_T`

Friends

- class `OsclPriorityQueueBase`

7.81.1 Detailed Description

`Oscl_Vector_Base` is a non-templatized base class for `Oscl_Vector`. The purpose of this base class is to avoid large inline routines in the `Oscl_Vector` implementation. This class is not intended for direct instantiation except by `Oscl_Vector`.

7.81.2 Constructor & Destructor Documentation

7.81.2.1 `virtual Oscl_Vector_Base::~Oscl_Vector_Base () [inline, protected, virtual]`

The destructor.

7.81.3 Member Function Documentation

7.81.3.1 `OSCL_IMPORT_REF void Oscl_Vector_Base::assign_vector (const Oscl_Vector_Base & x) [protected]`

Referenced by `Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::operator=()`.

7.81.3.2 `uint32 Oscl_Vector_Base::capacity () const [inline]`

Returns the allocated memory of the vector in units of number of elements.

References `bufsize`.

Referenced by `GetHostNameParam::canPersistMoreHostAddresses()`, and `GetHostNameParam::PersistHostAddress()`.

7.81.3.3 `OSCL_IMPORT_REF void Oscl_Vector_Base::construct (Oscl_Opaque_Type_Alloc * aType, const Oscl_Vector_Base & x) [protected]`

7.81.3.4 `OSCL_IMPORT_REF void Oscl_Vector_Base::construct (Oscl_Opaque_Type_Alloc * aType, uint32 n) [protected]`

7.81.3.5 `OSCL_IMPORT_REF void Oscl_Vector_Base::construct (Oscl_Opaque_Type_Alloc * aType) [protected]`

Referenced by `Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::Oscl_Vector()`.

7.81.3.6 `OSCL_IMPORT_REF void Oscl_Vector_Base::destroy () [protected]`

Reimplemented in `Oscl_Vector< T, Alloc >`, `Oscl_Vector< OsclComponentRegistryElement, OsclMemAllocator >`, `Oscl_Vector< uint32, OsclMemAllocator >`, `Oscl_Vector< OsclSocketServRequestQElem, OsclMemAllocator >`, `Oscl_Vector< Node *, Alloc >`, `Oscl_Vector< OsclFixedCacheParam, OsclMemAllocator >`, `Oscl_Vector< OsclSocketRequest *, OsclMemAllocator >`, `Oscl_Vector< entry_type *, Alloc >`, `Oscl_Vector< OSCL_HeapString< OsclMemAllocator >, OsclMemAllocator >`, `Oscl_Vector< OsclAsyncFileBuffer *, OsclMemAllocator >`, `Oscl_Vector< TOsclFileOffset, OsclMemAllocator >`, `Oscl_Vector< MemPoolBufferInfo *, OsclMemAllocator >`, `Oscl_Vector< OsclSharedPtr< PVLoggerFilter >, alloc_type >`, `Oscl_Vector< TOsclReady, OsclReadyAlloc >`, `Oscl_Vector< OsclFileCacheBuffer, OsclMemAllocator >`, `Oscl_Vector< OsclSharedPtr< PVLoggerAppender`

`>, alloc_type >, Oscl_Vector< OsclAny *, OsclMemAllocator >, and Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >.`

7.81.3.7 `bool Oscl_Vector_Base::empty () const [inline]`

True if the vector's size is 0.

References numelems.

Referenced by `Oscl_TagTree< T, Alloc >::Node::sort_children()`, and `OsclTimer< Alloc >::TimerBaseElapsed()`.

7.81.3.8 `OSCL_IMPORT_REF OsclAny* Oscl_Vector_Base::erase (OsclAny *first, OsclAny *last) [protected]`

Erases elements in range [first, last). Erasing an element invalidates all iterators pointing to elements following the deletion point.

Parameters

first starting position

last ending position, this position is not erased

7.81.3.9 `OSCL_IMPORT_REF OsclAny* Oscl_Vector_Base::erase (OsclAny *pos) [protected]`

Erases the element pointed to by iterator pos. Erasing an element invalidates all iterators pointing to elements following the deletion point.

Parameters

pos iterator at erase position

7.81.3.10 `OSCL_IMPORT_REF OsclAny* Oscl_Vector_Base::insert (OsclAny *pos, const OsclAny *x) [protected]`

Inserts a new element at a specific position.

Parameters

pos iterator at insert position.

x pointer to new element

7.81.3.11 `OSCL_IMPORT_REF void Oscl_Vector_Base::pop_back () [protected]`

Removes the last element.

Reimplemented in `Oscl_Vector< T, Alloc >`, `Oscl_Vector< OsclComponentRegistryElement, OsclMemAllocator >`, `Oscl_Vector< uint32, OsclMemAllocator >`, `Oscl_Vector< OsclSocketServRequestQElem, OsclMemAllocator >`, `Oscl_Vector< Node *, Alloc >`, `Oscl_Vector< OsclFixedCacheParam, OsclMemAllocator >`, `Oscl_Vector< OsclSocketRequest *, OsclMemAllocator >`, `Oscl_Vector<`

`entry_type *, Alloc >, Oscl_Vector< OSCL_HeapString< OsclMemAllocator >, OsclMemAllocator >, Oscl_Vector< OsclAsyncFileBuffer *, OsclMemAllocator >, Oscl_Vector< TOsclFileOffset, OsclMemAllocator >, Oscl_Vector< MemPoolBufferInfo *, OsclMemAllocator >, Oscl_Vector< OsclSharedPtr< PVLoggerFilter >, alloc_type >, Oscl_Vector< TOsclReady, OsclReadyAlloc >, Oscl_Vector< OsclFileCacheBuffer, OsclMemAllocator >, Oscl_Vector< OsclSharedPtr< PVLoggerAppender >, alloc_type >, Oscl_Vector< OsclAny *, OsclMemAllocator >, and Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >.`

7.81.3.12 OSCL_IMPORT_REF void Oscl_Vector_Base::push_back (const OsclAny * *x*) [protected]

Inserts a new element at the end. Inserting an element invalidates all iterators if memory reallocation occurs as a result of the insertion.

Parameters

x pointer to the new element

7.81.3.13 OSCL_IMPORT_REF void Oscl_Vector_Base::push_front (const OsclAny * *x*) [protected]

Inserts a new element at the front. Inserting an element invalidates all iterators if memory reallocation occurs as a result of the insertion.

Parameters

x pointer to new element

7.81.3.14 OSCL_IMPORT_REF void Oscl_Vector_Base::reserve (uint32 *n*)

Reallocates memory if necessary to a capacity of *n* elements. The main reason for reserve is efficiency. If you know the capacity to which your vector must grow, then it is more efficient to allocate the vector all at once rather than rely on the automatic reallocation scheme. This also helps control the invalidation of iterators.

Parameters

n size of vector

7.81.3.15 uint32 Oscl_Vector_Base::size () const [inline]

Returns the size of the vector in units of number of elements.

References numelems.

Referenced by GetHostByNameParam::canPersistMoreHostAddresses(), PVLogger::GetNumAppenders(), and GetHostByNameParam::PersistHostAddress().

7.81.4 Friends And Related Function Documentation

7.81.4.1 friend class OsclPriorityQueueBase [friend]

7.81.5 Field Documentation

7.81.5.1 uint32 Oscl_Vector_Base::bufsize [protected]

Referenced by capacity().

7.81.5.2 OsclAny* Oscl_Vector_Base::elems [protected]

Referenced by Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::begin(), and Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::end().

7.81.5.3 uint32 Oscl_Vector_Base::numelems [protected]

Referenced by empty(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::end(), Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::pop_back(), and size().

7.81.5.4 uint32 Oscl_Vector_Base::sizeof_T [protected]

Referenced by Oscl_Vector< OsclNetworkAddress, OsclMemAllocator >::Oscl_Vector().

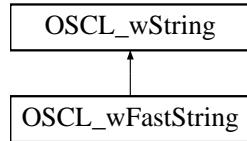
The documentation for this class was generated from the following file:

- [oscl_vector.h](#)

7.82 OSCL_wFastString Class Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_wFastString:



Public Types

- `typedef OSCL_wString::chartype chartype`
- `typedef TOSCL_wStringOp optype`
- `typedef OSCL_String::chartype other_chartype`

Public Member Functions

- `OSCL_IMPORT_REF OSCL_wFastString()`
- `OSCL_IMPORT_REF OSCL_wFastString(const OSCL_wFastString &src)`
- `OSCL_IMPORT_REF OSCL_wFastString(const chartype *cstr)`
- `OSCL_IMPORT_REF OSCL_wFastString(chartype *buf, uint32 maxlen)`
- `OSCL_IMPORT_REF ~OSCL_wFastString()`
- `OSCL_IMPORT_REF uint32 get_size() const`
- `OSCL_IMPORT_REF uint32 get_maxsize() const`
- `OSCL_IMPORT_REF const chartype * get_cstr() const`
- `OSCL_IMPORT_REF chartype * get_str() const`
- `OSCL_IMPORT_REF OSCL_wFastString & operator=(const OSCL_wFastString &src)`
- `OSCL_IMPORT_REF OSCL_wFastString & operator=(const chartype *cstr)`
- `OSCL_IMPORT_REF void set(chartype *cstr, uint32 maxlen)`
- `OSCL_IMPORT_REF void set(const other_chartype *buf, uint32 numofbyte, optype op)`
- `OSCL_IMPORT_REF void set_length()`

Friends

- class `OSCL_wString`

7.82.1 Detailed Description

`OSCL_wFastString` is identical to `OSCL_FastString` except that it uses wide-character format. For descriptions, see `OSCL_FastString`.

7.82.2 Member Typedef Documentation

7.82.2.1 `typedef OSCL_wString::chartype OSCL_wFastString::chartype`

Reimplemented from `OSCL_wString`.

7.82.2.2 **typedef TOSCL_wStringOp OSCL_wFastString::optype**

7.82.2.3 **typedef OSCL_String::chartype OSCL_wFastString::other_chartype**

7.82.3 Constructor & Destructor Documentation

7.82.3.1 **OSCL_IMPORT_REF OSCL_wFastString::OSCL_wFastString ()**

7.82.3.2 **OSCL_IMPORT_REF OSCL_wFastString::OSCL_wFastString (const OSCL_wFastString & src)**

7.82.3.3 **OSCL_IMPORT_REF OSCL_wFastString::OSCL_wFastString (const chartype * cstr)**

7.82.3.4 **OSCL_IMPORT_REF OSCL_wFastString::OSCL_wFastString (chartype * buf, uint32 maxlen)**

7.82.3.5 **OSCL_IMPORT_REF OSCL_wFastString::~OSCL_wFastString ()**

7.82.4 Member Function Documentation

7.82.4.1 **OSCL_IMPORT_REF const chartype* OSCL_wFastString::get_cstr () const [virtual]**

Implements [OSCL_wString](#).

7.82.4.2 **OSCL_IMPORT_REF uint32 OSCL_wFastString::get_maxsize () const [virtual]**

Implements [OSCL_wString](#).

7.82.4.3 **OSCL_IMPORT_REF uint32 OSCL_wFastString::get_size () const [virtual]**

Implements [OSCL_wString](#).

7.82.4.4 **OSCL_IMPORT_REF chartype* OSCL_wFastString::get_str () const [virtual]**

Implements [OSCL_wString](#).

7.82.4.5 **OSCL_IMPORT_REF OSCL_wFastString& OSCL_wFastString::operator= (const chartype * cstr)**

Reimplemented from [OSCL_wString](#).

- 7.82.4.6 **OSCL_IMPORT_REF OSCL_wFastString& OSCL_wFastString::operator= (const OSCL_wFastString & src)**
- 7.82.4.7 **OSCL_IMPORT_REF void OSCL_wFastString::set (const other_chartype * buf, uint32 numofbyte, optype op)**
- 7.82.4.8 **OSCL_IMPORT_REF void OSCL_wFastString::set (chartype * cstr, uint32 maxlen)**
- 7.82.4.9 **OSCL_IMPORT_REF void OSCL_wFastString::set_length ()**

7.82.5 Friends And Related Function Documentation

- 7.82.5.1 **friend class OSCL_wString [friend]**

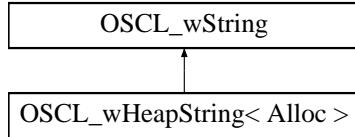
The documentation for this class was generated from the following file:

- [oscl_string_containers.h](#)

7.83 OSCL_wHeapString< Alloc > Class Template Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_wHeapString< Alloc >:



Public Types

- `typedef OSCL_wString::chartype chartype`
- `typedef TOSCL_wStringOp optype`
- `typedef OSCL_String::chartype other_chartype`

Public Member Functions

- `OSCL_wHeapString()`
- `OSCL_wHeapString(const OSCL_wHeapString &src)`
- `OSCL_wHeapString(const OSCL_wString &src)`
- `OSCL_wHeapString(const chartype *cstr)`
- `OSCL_wHeapString(const chartype *buf, uint32 length)`
- `~OSCL_wHeapString()`
- `uint32 get_size() const`
- `uint32 get_maxsize() const`
- `const chartype * get_cstr() const`
- `chartype * get_str() const`
- `OSCL_wHeapString & operator=(const OSCL_wHeapString &src)`
- `OSCL_wHeapString & operator=(const OSCL_wString &src)`
- `OSCL_wHeapString & operator=(const chartype *cstr)`
- `void set(const chartype *buf, uint32 length)`
- `void set(const other_chartype *buf, optype op)`
- `void set(const other_chartype *buf, uint32 length, optype op)`

Friends

- class `OSCL_wString`

7.83.1 Detailed Description

```
template<class Alloc> class OSCL_wHeapString< Alloc >
```

`OSCL_wHeapString` is identical to `OSCL_HeapString` except that it uses wide-character format. For descriptions, see `OSCL_HeapString`.

7.83.2 Member Typedef Documentation

7.83.2.1 template<class Alloc> typedef OSCL_wString::chartype OSCL_wHeapString< Alloc >::chartype

Reimplemented from [OSCL_wString](#).

7.83.2.2 template<class Alloc> typedef TOSCL_wStringOp OSCL_wHeapString< Alloc >::optype

7.83.2.3 template<class Alloc> typedef OSCL_String::chartype OSCL_wHeapString< Alloc >::other_chartype

7.83.3 Friends And Related Function Documentation

7.83.3.1 template<class Alloc> friend class OSCL_wString [friend]

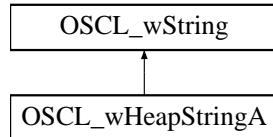
The documentation for this class was generated from the following file:

- [oscl_string_containers.h](#)

7.84 OSCL_wHeapStringA Class Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_wHeapStringA:



Public Types

- `typedef OSCL_wString::chartype chartype`
- `typedef TOSCL_wStringOp optype`
- `typedef OSCL_String::chartype other_chartype`

Public Member Functions

- `OSCL_IMPORT_REF OSCL_wHeapStringA()`
- `OSCL_IMPORT_REF OSCL_wHeapStringA(Oscl_DefAlloc *alloc, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA(const OSCL_wHeapStringA &src)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA(const OSCL_wHeapStringA &src, Oscl_DefAlloc *alloc, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA(const OSCL_wString &src, Oscl_DefAlloc *alloc=NULL, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA(const chartype *cstr, Oscl_DefAlloc *alloc=NULL, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA(const chartype *buf, uint32 length, Oscl_DefAlloc *alloc=NULL, OsclRefCounter *ref=NULL)`
- `OSCL_IMPORT_REF ~OSCL_wHeapStringA()`
- `OSCL_IMPORT_REF uint32 get_size() const`
- `OSCL_IMPORT_REF uint32 get_maxsize() const`
- `OSCL_IMPORT_REF const chartype * get_cstr() const`
- `OSCL_IMPORT_REF chartype * get_str() const`
- `OSCL_IMPORT_REF OSCL_wHeapStringA & operator=(const OSCL_wHeapStringA &src)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA & operator=(const OSCL_wString &src)`
- `OSCL_IMPORT_REF OSCL_wHeapStringA & operator=(const chartype *cstr)`
- `OSCL_IMPORT_REF void set(const chartype *buf, uint32 length)`
- `OSCL_IMPORT_REF void set(const other_chartype *buf, optype op)`
- `OSCL_IMPORT_REF void set(const other_chartype *buf, uint32 length, optype op)`

Friends

- class `OSCL_wString`

7.84.1 Detailed Description

`OSCL_wHeapStringA` is identical to `OSCL_HeapStringA` except that it uses wide-character format. For descriptions, see `OSCL_HeapStringA`.

7.84.2 Member Typedef Documentation

7.84.2.1 `typedef OSCL_wString::chartype OSCL_wHeapStringA::chartype`

Reimplemented from `OSCL_wString`.

7.84.2.2 `typedef TOSCL_wStringOp OSCL_wHeapStringA::optype`

7.84.2.3 `typedef OSCL_String::chartype OSCL_wHeapStringA::other_chartype`

7.84.3 Constructor & Destructor Documentation

7.84.3.1 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA ()`

7.84.3.2 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA (Oscl_DefAlloc * alloc, OsclRefCounter * ref = NULL)`

7.84.3.3 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA (const OSCL_wHeapStringA & src)`

7.84.3.4 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA (const OSCL_wHeapStringA & src, Oscl_DefAlloc * alloc, OsclRefCounter * ref = NULL)`

7.84.3.5 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA (const OSCL_wString & src, Oscl_DefAlloc * alloc = NULL, OsclRefCounter * ref = NULL)`

7.84.3.6 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA (const chartype * cstr, Oscl_DefAlloc * alloc = NULL, OsclRefCounter * ref = NULL)`

7.84.3.7 `OSCL_IMPORT_REF OSCL_wHeapStringA::OSCL_wHeapStringA (const chartype * buf, uint32 length, Oscl_DefAlloc * alloc = NULL, OsclRefCounter * ref = NULL)`

7.84.3.8 `OSCL_IMPORT_REF OSCL_wHeapStringA::~OSCL_wHeapStringA ()`

7.84.4 Member Function Documentation

7.84.4.1 `OSCL_IMPORT_REF const chartype* OSCL_wHeapStringA::get_cstr () const [virtual]`

Implements `OSCL_wString`.

7.84.4.2 `OSCL_IMPORT_REF uint32 OSCL_wHeapStringA::get_maxsize () const [virtual]`

Implements `OSCL_wString`.

7.84.4.3 OSCL_IMPORT_REF uint32 OSCL_wHeapStringA::get_size () const [virtual]

Implements [OSCL_wString](#).

7.84.4.4 OSCL_IMPORT_REF chartype* OSCL_wHeapStringA::get_str () const [virtual]

Implements [OSCL_wString](#).

7.84.4.5 OSCL_IMPORT_REF OSCL_wHeapStringA& OSCL_wHeapStringA::operator= (const chartype * *cstr*)

Reimplemented from [OSCL_wString](#).

7.84.4.6 OSCL_IMPORT_REF OSCL_wHeapStringA& OSCL_wHeapStringA::operator= (const OSCL_wString & *src*)

Reimplemented from [OSCL_wString](#).

7.84.4.7 OSCL_IMPORT_REF OSCL_wHeapStringA& OSCL_wHeapStringA::operator= (const OSCL_wHeapStringA & *src*)**7.84.4.8 OSCL_IMPORT_REF void OSCL_wHeapStringA::set (const other_chartype * *buf*, uint32 *length*, optype *op*)****7.84.4.9 OSCL_IMPORT_REF void OSCL_wHeapStringA::set (const other_chartype * *buf*, optype *op*)****7.84.4.10 OSCL_IMPORT_REF void OSCL_wHeapStringA::set (const chartype * *buf*, uint32 *length*)**

7.84.5 Friends And Related Function Documentation

7.84.5.1 friend class OSCL_wString [friend]

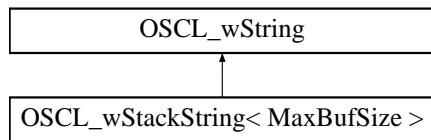
The documentation for this class was generated from the following file:

- [oscl_string_containers.h](#)

7.85 OSCL_wStackString< MaxBufSize > Class Template Reference

```
#include <oscl_string_containers.h>
```

Inheritance diagram for OSCL_wStackString< MaxBufSize >:



Public Types

- `typedef OSCL_wString::chartype chartype`
- `typedef TOSCL_wStringOp optype`
- `typedef OSCL_String::chartype other_chartype`

Public Member Functions

- `OSCL_wStackString()`
- `OSCL_wStackString(const OSCL_wStackString &src)`
- `OSCL_wStackString(const OSCL_wString &src)`
- `OSCL_wStackString(const chartype *cstr)`
- `OSCL_wStackString(const chartype *buf, uint32 length)`
- `~OSCL_wStackString()`
- `uint32 get_size() const`
- `uint32 get_maxsize() const`
- `const chartype * get_cstr() const`
- `chartype * get_str() const`
- `OSCL_wStackString & operator=(const OSCL_wStackString &src)`
- `OSCL_wStackString & operator=(const OSCL_wString &src)`
- `OSCL_wStackString & operator=(const chartype *cstr)`
- `void set(const chartype *buf, uint32 length)`
- `void set(const other_chartype *buf, optype op)`
- `void set(const other_chartype *buf, uint32 length, optype op)`

Friends

- class `OSCL_wString`

7.85.1 Detailed Description

`template<uint32 MaxBufSize> class OSCL_wStackString< MaxBufSize >`

`OSCL_wStackString` is identical to `OSCL_StackString` except that it uses wide-character format. For descriptions, see `OSCL_StackString`.

7.85.2 Member Typedef Documentation

7.85.2.1 **template<uint32 MaxBufSize> typedef OSCL_wString::chartype OSCL_wStackString<MaxBufSize >::chartype**

Reimplemented from [OSCL_wString](#).

7.85.2.2 **template<uint32 MaxBufSize> typedef TOSCL_wStringOp OSCL_wStackString<MaxBufSize >::optype**

7.85.2.3 **template<uint32 MaxBufSize> typedef OSCL_String::chartype OSCL_wStackString<MaxBufSize >::other_chartype**

7.85.3 Friends And Related Function Documentation

7.85.3.1 **template<uint32 MaxBufSize> friend class OSCL_wString [friend]**

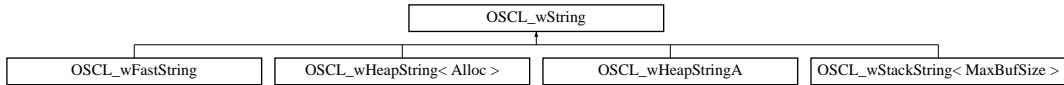
The documentation for this class was generated from the following file:

- [oscl_string_containers.h](#)

7.86 OSCL_wString Class Reference

```
#include <oscl_string.h>
```

Inheritance diagram for OSCL_wString:



Public Types

- `typedef oscl_wchar chartype`

Public Member Functions

- `virtual uint32 get_size () const =0`
- `virtual uint32 get_maxsize () const =0`
- `virtual const chartype * get_cstr () const =0`
- `virtual bool is_writable () const`
- `virtual chartype * get_str () const =0`
- `OSCL_wString & operator= (const OSCL_wString &src)`
- `OSCL_wString & operator= (const chartype *cstr)`
- `OSCL_wString & operator+= (const OSCL_wString &src)`
- `OSCL_wString & operator+= (const chartype *cstr)`
- `OSCL_wString & operator+= (const chartype c)`
- `bool operator== (const OSCL_wString &src) const`
- `bool operator!= (const OSCL_wString &src) const`
- `bool operator< (const OSCL_wString &src) const`
- `bool operator<= (const OSCL_wString &src) const`
- `bool operator> (const OSCL_wString &src) const`
- `bool operator>= (const OSCL_wString &src) const`
- `bool operator== (const chartype *cstr) const`
- `chartype operator[] (uint32 index) const`
- `virtual chartype read (uint32 index) const`
- `virtual uint32 setrep_to_wide_char (const char *src, uint32 len, TOSCL_wStringOp op, Oscl_DefAlloc *aAlloc)`
- `virtual int8 hash () const`
- `virtual void write (uint32 index, chartype c)`
- `virtual void write (uint32 offset, uint32 length, const chartype *buf)`

Protected Member Functions

- `OSCL_wString ()`
- `virtual ~OSCL_wString ()`
- `virtual void set_rep (const chartype *cstr)=0`
- `virtual void append_rep (const chartype *cstr)=0`
- `virtual void set_rep (const OSCL_wString &src)=0`
- `virtual void append_rep (const OSCL_wString &src)=0`
- `virtual void set_len (uint32 len)=0`

7.86.1 Detailed Description

A common base class for string classes with wide character (oscl_wchar) format. [OSCL_wString](#) and [OSCL_String](#) are identical except for the character format. For descriptions, see [OSCL_String](#).

7.86.2 Member Typedef Documentation

7.86.2.1 `typedef oscl_wchar OSCL_wString::chartype`

Reimplemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), [OSCL_wStackString< MaxBufSize >](#), and [OSCL_wFastString](#).

7.86.3 Constructor & Destructor Documentation

7.86.3.1 `OSCL_wString::OSCL_wString () [protected]`

7.86.3.2 `virtual OSCL_wString::~OSCL_wString () [protected, virtual]`

7.86.4 Member Function Documentation

7.86.4.1 `virtual void OSCL_wString::append_rep (const OSCL_wString & src) [protected, pure virtual]`

7.86.4.2 `virtual void OSCL_wString::append_rep (const chartype * cstr) [protected, pure virtual]`

7.86.4.3 `virtual const chartype* OSCL_wString::get_cstr () const [pure virtual]`

Implemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), [OSCL_wStackString< MaxBufSize >](#), and [OSCL_wFastString](#).

7.86.4.4 `virtual uint32 OSCL_wString::get_maxsize () const [pure virtual]`

Implemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), [OSCL_wStackString< MaxBufSize >](#), and [OSCL_wFastString](#).

7.86.4.5 `virtual uint32 OSCL_wString::get_size () const [pure virtual]`

Implemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), [OSCL_wStackString< MaxBufSize >](#), and [OSCL_wFastString](#).

7.86.4.6 `virtual chartype* OSCL_wString::get_str () const [pure virtual]`

Implemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), [OSCL_wStackString< MaxBufSize >](#), and [OSCL_wFastString](#).

- 7.86.4.7 **virtual int8 OSCL_wString::hash () const [virtual]**
- 7.86.4.8 **virtual bool OSCL_wString::is_writable () const [virtual]**
- 7.86.4.9 **bool OSCL_wString::operator!= (const OSCL_wString & src) const**
- 7.86.4.10 **OSCL_wString& OSCL_wString::operator+= (const chartype c)**
- 7.86.4.11 **OSCL_wString& OSCL_wString::operator+= (const chartype * cstr)**
- 7.86.4.12 **OSCL_wString& OSCL_wString::operator+= (const OSCL_wString & src)**
- 7.86.4.13 **bool OSCL_wString::operator< (const OSCL_wString & src) const**
- 7.86.4.14 **bool OSCL_wString::operator<= (const OSCL_wString & src) const**
- 7.86.4.15 **OSCL_wString& OSCL_wString::operator= (const chartype * cstr)**

Reimplemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), [OSCL_wStackString< MaxBufSize >](#), and [OSCL_wFastString](#).

- 7.86.4.16 **OSCL_wString& OSCL_wString::operator= (const OSCL_wString & src)**

Reimplemented in [OSCL_wHeapString< Alloc >](#), [OSCL_wHeapStringA](#), and [OSCL_wStackString< MaxBufSize >](#).

- 7.86.4.17 **bool OSCL_wString::operator== (const chartype * cstr) const**
- 7.86.4.18 **bool OSCL_wString::operator== (const OSCL_wString & src) const**
- 7.86.4.19 **bool OSCL_wString::operator> (const OSCL_wString & src) const**
- 7.86.4.20 **bool OSCL_wString::operator>= (const OSCL_wString & src) const**
- 7.86.4.21 **chartype OSCL_wString::operator[] (uint32 index) const**
- 7.86.4.22 **virtual chartype OSCL_wString::read (uint32 index) const [virtual]**
- 7.86.4.23 **virtual void OSCL_wString::set_len (uint32 len) [protected, pure virtual]**
- 7.86.4.24 **virtual void OSCL_wString::set_rep (const OSCL_wString & src) [protected, pure virtual]**
- 7.86.4.25 **virtual void OSCL_wString::set_rep (const chartype * cstr) [protected, pure virtual]**

Referenced by [OSCL_wStackString< MaxBufSize >::operator=\(\)](#), [OSCL_StackString< MaxBufSize >::operator=\(\)](#), [OSCL_wHeapString< Alloc >::operator=\(\)](#), [OSCL_HeapString< Alloc >::operator=\(\)](#), [OSCL_HeapString< Alloc >::OSCL_HeapString\(\)](#), [OSCL_StackString< MaxBufSize >::OSCL_StackString\(\)](#), [OSCL_wHeapString< Alloc >::OSCL_wHeapString\(\)](#), [OSCL_wStackString< MaxBufSize >::OSCL_wStackString\(\)](#), [OSCL_wHeapString< Alloc >::set\(\)](#), and [OSCL_HeapString< Alloc >::set\(\)](#).

**7.86.4.26 virtual uint32 OSCL_wString::setrep_to_wide_char (const char * *src*, uint32 *len*,
TOSCL_wStringOp *op*, Oscl_DefAlloc * *aAlloc*) [virtual]**

Referenced by OSCL_wStackString< MaxBufSize >::set(), and OSCL_wHeapString< Alloc >::set().

**7.86.4.27 virtual void OSCL_wString::write (uint32 *offset*, uint32 *length*, const chartype * *buf*)
[virtual]**

7.86.4.28 virtual void OSCL_wString::write (uint32 *index*, chartype *c*) [virtual]

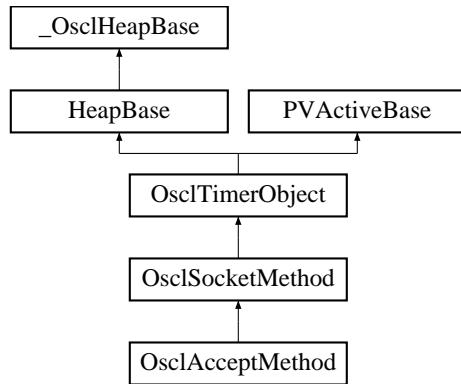
The documentation for this class was generated from the following file:

- [oscl_string.h](#)

7.87 OsclAcceptMethod Class Reference

```
#include <oscl_socket_accept.h>
```

Inheritance diagram for OsclAcceptMethod:



Public Member Functions

- [~OsclAcceptMethod \(\)](#)
- [TPVSocketEvent Accept \(int32 aTimeout\)](#)
- [void DiscardAcceptedSocket \(\)](#)
- [OsclSocketI * GetAcceptedSocket \(\)](#)
- [OsclAcceptRequest * AcceptRequest \(\)](#)

Static Public Member Functions

- static [OsclAcceptMethod * NewL \(OsclIPSocketI &c\)](#)

7.87.1 Constructor & Destructor Documentation

7.87.1.1 OsclAcceptMethod::~OsclAcceptMethod ()

7.87.2 Member Function Documentation

7.87.2.1 TPVSocketEvent OsclAcceptMethod::Accept (int32 aTimeout)

Referenced by [OsclTCPSocketI::Accept\(\)](#).

7.87.2.2 OsclAcceptRequest* OsclAcceptMethod::AcceptRequest () [inline]

References [OsclSocketMethod::iSocketRequestAO](#).

7.87.2.3 void OsclAcceptMethod::DiscardAcceptedSocket ()

7.87.2.4 OsclSocketI* OsclAcceptMethod::GetAcceptedSocket ()

7.87.2.5 static OsclAcceptMethod* OsclAcceptMethod::NewL (OsclIPSocketI & c) [static]

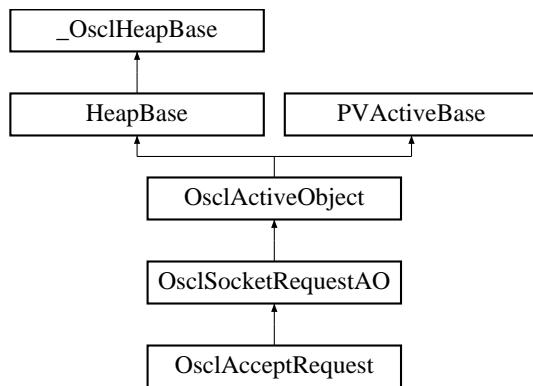
The documentation for this class was generated from the following file:

- [oscl_socket_accept.h](#)

7.88 OsclAcceptRequest Class Reference

```
#include <oscl_socket_accept.h>
```

Inheritance diagram for OsclAcceptRequest:



Public Member Functions

- [OsclAcceptRequest \(OsclSocketMethod &c\)](#)
- [void Accept \(OsclSocketI &aSocket\)](#)

7.88.1 Constructor & Destructor Documentation

7.88.1.1 OsclAcceptRequest::OsclAcceptRequest (OsclSocketMethod & c) [inline]

7.88.2 Member Function Documentation

7.88.2.1 void OsclAcceptRequest::Accept (OsclSocketI & aSocket)

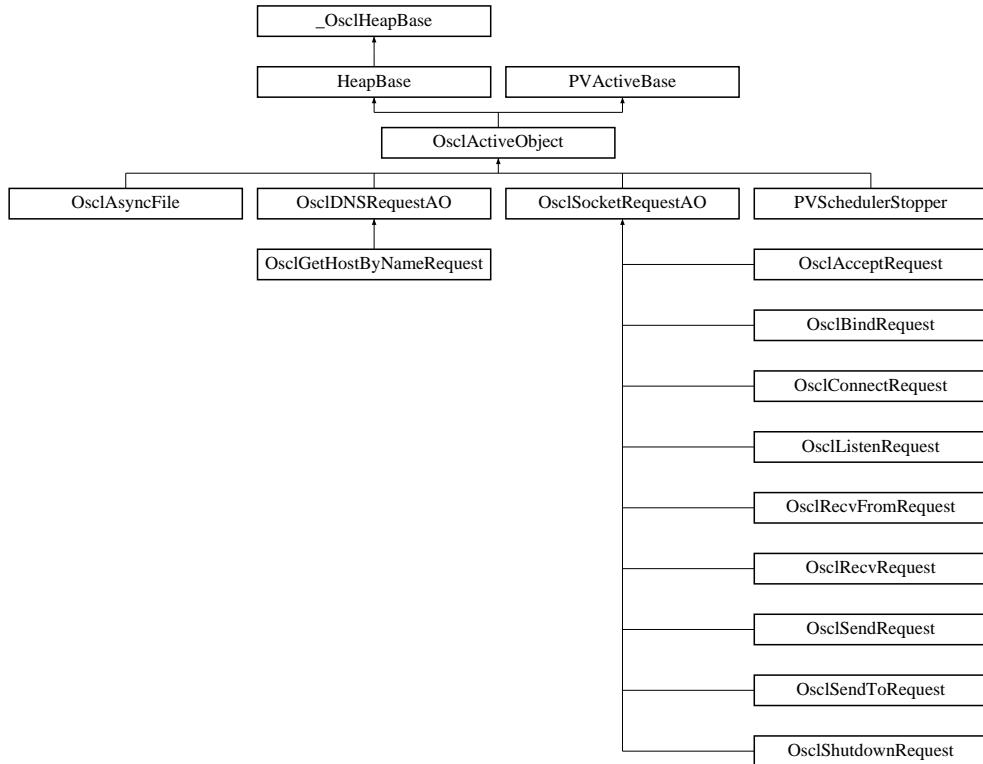
The documentation for this class was generated from the following file:

- [oscl_socket_accept.h](#)

7.89 OsclActiveObject Class Reference

```
#include <oscl_scheduler_ao.h>
```

Inheritance diagram for OsclActiveObject:



Public Types

- enum [OsclActivePriority](#) {

 [EPriorityIdle](#) = -100, [EPriorityLow](#) = -20, [EPriorityNominal](#) = 0, [EPriorityHigh](#) = 10,

 [EPriorityHighest](#) = 20 }

Public Member Functions

- [OSCL_IMPORT_REF OsclActiveObject](#) (int32 aPriority, const char name[])
- virtual [OSCL_IMPORT_REF ~OsclActiveObject](#) ()
- [OSCL_IMPORT_REF void SetBusy](#) ()
- [OSCL_IMPORT_REF bool IsBusy](#) () const
- [OSCL_IMPORT_REF void PendForExec](#) ()
- [OSCL_IMPORT_REF void PendComplete](#) (int32 aStatus)
- [OSCL_IMPORT_REF void AddToScheduler](#) ()
- [OSCL_IMPORT_REF void RemoveFromScheduler](#) ()
- [OSCL_IMPORT_REF void RunIfNotReady](#) ()
- [OSCL_IMPORT_REF void Cancel](#) ()
- [OSCL_IMPORT_REF int32 Priority](#) () const

- OSCL_IMPORT_REF int32 `Status` () const
- OSCL_IMPORT_REF void `SetStatus` (int32)
- OSCL_IMPORT_REF `OsclAOStatus & StatusRef` ()

Protected Member Functions

- virtual OSCL_IMPORT_REF void `DoCancel` ()
- virtual OSCL_IMPORT_REF int32 `RunError` (int32 aError)

7.89.1 Detailed Description

User base class for execution objects. `OsclActiveObject` defines an execution object without any timer. This AO can be used across threads, i.e. the request can be activated in one thread and completed in another.

7.89.2 Member Enumeration Documentation

7.89.2.1 enum OsclActiveObject::OsclActivePriority

Scheduling priorities.

Enumerator:

- EPriorityIdle*** A low priority, useful for execution objects representing background processing.
- EPriorityLow*** A priority higher than EPriorityIdle but lower than EPriorityNominal.
- EPriorityNominal*** Most exec objects will have this priority.
- EPriorityHigh*** A priority higher than EPriorityNominal; useful for execution objects handling user input.
- EPriorityHighest*** A priority higher than EPriorityHighest.

7.89.3 Constructor & Destructor Documentation

7.89.3.1 OSCL_IMPORT_REF OsclActiveObject::OsclActiveObject (int32 *aPriority*, const char *name*[])

Constructor.

Parameters

- aPriority*** (input param): scheduling priority
- name*** (input param): optional name for this AO.

7.89.3.2 virtual OSCL_IMPORT_REF OsclActiveObject::~OsclActiveObject () [virtual]

Destructor.

7.89.4 Member Function Documentation

7.89.4.1 OSCL_IMPORT_REF void OsclActiveObject::AddToScheduler ()

Add this exec object to the current thread's scheduler.

Reimplemented from [PVActiveBase](#).

7.89.4.2 OSCL_IMPORT_REF void OsclActiveObject::Cancel ()

Cancel any pending request. If the request is readied, this will call the DoCancel routine, wait for the request to cancel, then set the request idle. The AO will not run. If the request is not readied, it does nothing. Request must be canceled from the same thread in which it is scheduled.

Reimplemented from [PVActiveBase](#).

Referenced by [OsclSocketRequestAO::Abort\(\)](#), and [OsclDNSRequestAO::Abort\(\)](#).

7.89.4.3 virtual OSCL_IMPORT_REF void OsclActiveObject::DoCancel () [protected, virtual]

Cancel request handler. This gets called by scheduler when the request is cancelled. The default routine will complete the request. If any additional action is needed, the derived class may override this. If the derived class does override DoCancel, it must complete the request.

Implements [PVActiveBase](#).

Reimplemented in [OsclDNSRequestAO](#), and [OsclSocketRequestAO](#).

7.89.4.4 OSCL_IMPORT_REF bool OsclActiveObject::IsBusy () const

Return true if this AO is pending, false otherwise.

7.89.4.5 OSCL_IMPORT_REF void OsclActiveObject::PendComplete (int32 *aStatus*)

Complete the active request for the AO. This API is thread-safe. If the request is not pending, this call will leave.

Parameters

aStatus,: request completion status.

7.89.4.6 OSCL_IMPORT_REF void OsclActiveObject::PendForExec ()

Set request active for this AO and set the status to pending. PendForExec is identical to SetActive, but it additionally sets the request status to OSCL_REQUEST_PENDING.

7.89.4.7 OSCL_IMPORT_REF int32 OsclActiveObject::Priority () const

Return scheduling priority of this exec object.

7.89.4.8 OSCL_IMPORT_REF void OsclActiveObject::RemoveFromScheduler ()

Remove this AO from its scheduler. Will leave if the calling thread context does not match the scheduling thread. Cancels any readied request before removing.

Reimplemented from [PVActiveBase](#).

Referenced by [OsclDNSRequestAO::Abort\(\)](#).

**7.89.4.9 virtual OSCL_IMPORT_REF int32 OsclActiveObject::RunError (int32 *aError*)
[protected, virtual]**

Run Error handler. This gets called by scheduler when the Run routine leaves. The default implementation simply returns the leave code. If the derived class wants to handle errors from Run, it may override this. The RunError should return OsclErrNone if it handles the error, otherwise it should return the input error code.

Parameters

aError,: the leave code generated by the Run.

Implements [PVActiveBase](#).

7.89.4.10 OSCL_IMPORT_REF void OsclActiveObject::RunIfNotReady ()

Complete this AO's request immediately. If the AO is already active, this will do nothing. Will leave if the AO is not added to any scheduler, or if the calling thread context does not match the scheduling thread.

7.89.4.11 OSCL_IMPORT_REF void OsclActiveObject::SetBusy ()

Set object ready for this AO, additionally sets the request status to OSCL_REQUEST_PENDING. Will leave if the request is already readied, or the execution object is not added to any scheduler, or the calling thread context does not match the scheduler thread.

7.89.4.12 OSCL_IMPORT_REF void OsclActiveObject::SetStatus (int32)**7.89.4.13 OSCL_IMPORT_REF int32 OsclActiveObject::Status () const**

Request status access

7.89.4.14 OSCL_IMPORT_REF OsclAOStatus& OsclActiveObject::StatusRef ()

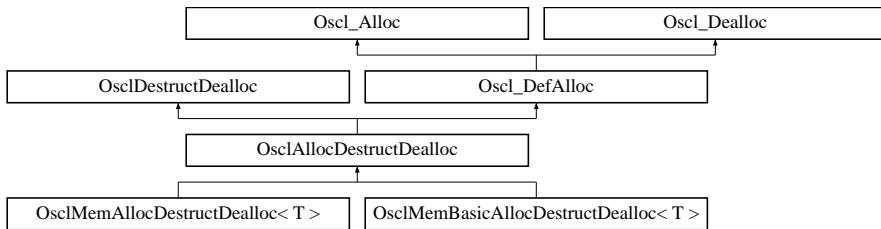
The documentation for this class was generated from the following file:

- [oscl_scheduler_ao.h](#)

7.90 OsclAllocDestructDealloc Class Reference

```
#include <oscl_defalloc.h>
```

Inheritance diagram for OsclAllocDestructDealloc:



Public Member Functions

- virtual [~OsclAllocDestructDealloc \(\)](#)

7.90.1 Constructor & Destructor Documentation

7.90.1.1 virtual OsclAllocDestructDealloc::~OsclAllocDestructDealloc () [inline, virtual]

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

- [oscl_defalloc.h](#)

7.91 OsclAOStatus Class Reference

```
#include <oscl_aostatus.h>
```

Public Member Functions

- OSCL_INLINE OsclAOStatus ()
- OSCL_INLINE OsclAOStatus (int32 aStatus)
- OSCL_INLINE int32 operator= (int32 aStatus)
- OSCL_INLINE int32 operator== (int32 aStatus) const
- OSCL_INLINE int32 operator!= (int32 aStatus) const
- OSCL_INLINE int32 operator>= (int32 aStatus) const
- OSCL_INLINE int32 operator<= (int32 aStatus) const
- OSCL_INLINE int32 operator> (int32 aStatus) const
- OSCL_INLINE int32 operator< (int32 aStatus) const
- OSCL_INLINE int32 Value () const

7.91.1 Constructor & Destructor Documentation

7.91.1.1 OSCL_INLINE OsclAOStatus::OsclAOStatus ()

7.91.1.2 OSCL_INLINE OsclAOStatus::OsclAOStatus (int32 *aStatus*)

7.91.2 Member Function Documentation

7.91.2.1 OSCL_INLINE int32 OsclAOStatus::operator!= (int32 *aStatus*) const

7.91.2.2 OSCL_INLINE int32 OsclAOStatus::operator< (int32 *aStatus*) const

7.91.2.3 OSCL_INLINE int32 OsclAOStatus::operator<= (int32 *aStatus*) const

7.91.2.4 OSCL_INLINE int32 OsclAOStatus::operator= (int32 *aStatus*)

7.91.2.5 OSCL_INLINE int32 OsclAOStatus::operator== (int32 *aStatus*) const

7.91.2.6 OSCL_INLINE int32 OsclAOStatus::operator> (int32 *aStatus*) const

7.91.2.7 OSCL_INLINE int32 OsclAOStatus::operator>= (int32 *aStatus*) const

7.91.2.8 OSCL_INLINE int32 OsclAOStatus::Value () const

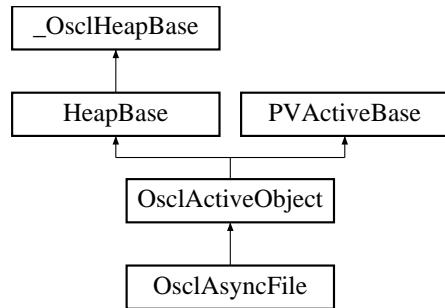
The documentation for this class was generated from the following file:

- [oscl_aostatus.h](#)

7.92 OsclAsyncFile Class Reference

```
#include <oscl_file_async_read.h>
```

Inheritance diagram for OsclAsyncFile:



Public Member Functions

- [~OsclAsyncFile \(\)](#)
- [int32 Open \(const oscl_wchar *filename, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv\)](#)
- [int32 Open \(const char *filename, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv\)](#)
- [int32 Seek \(TOsclFileOffset offset, Oscl_File::seek_type origin\)](#)
- [TOsclFileOffset Tell \(\)](#)
- [uint32 Read \(OsclAny *aBuffer1, uint32 aDataSize, uint32 aNumElements\)](#)
- [int32 EndOfFile \(\)](#)
- [TOsclFileOffset Size \(\)](#)
- [int32 Close \(\)](#)
- [uint32 Write \(const OsclAny *aBuffer1, uint32 aDataSize, uint32 aNumElements\)](#)
- [uint32 Flush \(\)](#)

Static Public Member Functions

- [static OsclAsyncFile * NewL \(OsclNativeFile &aAsyncFile, int32 aCacheSize, PVLogger *\)](#)
- [static void Delete \(OsclAsyncFile *\)](#)

Data Fields

- [uint32 iNumOfRun](#)
- [uint32 iNumOfRunErr](#)

7.92.1 Detailed Description

[OsclAsyncFile](#)

7.92.2 Constructor & Destructor Documentation

7.92.2.1 OsclAsyncFile::~OsclAsyncFile ()

Destructor.

7.92.3 Member Function Documentation

7.92.3.1 int32 OsclAsyncFile::Close ()

7.92.3.2 static void OsclAsyncFile::Delete (OsclAsyncFile *) [static]

7.92.3.3 int32 OsclAsyncFile::EndOfFile ()

7.92.3.4 uint32 OsclAsyncFile::Flush () [inline]

7.92.3.5 static OsclAsyncFile* OsclAsyncFile::NewL (OsclNativeFile & aSyncFile, int32 aCacheSize, PVLogger *) [static]

Two-phased constructor.

Parameters

aSyncFile,: open handle for async file read. Note: it is the caller's job to open/close this file handle.

aSyncFile,: duplicate open handle for sync file read. Note: it is the caller's job to open this file handle, but this class will close the handle.

aCacheSize,: size of one of the individual cache buffers. The total cached data size will be larger, since multiple buffers are used.

aStartAsyncRead,: When true, async file read will start immediately. When false, read will not begin until StartAsyncRead is called.

7.92.3.6 int32 OsclAsyncFile::Open (const char *filename, uint32 mode, const OsclNativeFileParams & params, Oscl_FileServer & fileserv)

7.92.3.7 int32 OsclAsyncFile::Open (const oscl_wchar *filename, uint32 mode, const OsclNativeFileParams & params, Oscl_FileServer & fileserv)

7.92.3.8 uint32 OsclAsyncFile::Read (OsclAny *aBuffer1, uint32 aDataSize, uint32 aNumElements)

7.92.3.9 int32 OsclAsyncFile::Seek (TOsclFileOffset offset, Oscl_File::seek_type origin)

7.92.3.10 TOsclFileOffset OsclAsyncFile::Size ()

7.92.3.11 TOsclFileOffset OsclAsyncFile::Tell ()

7.92.3.12 uint32 OsclAsyncFile::Write (const OsclAny *aBuffer1, uint32 aDataSize, uint32 aNumElements) [inline]

References OSCL_UNUSED_ARG.

7.92.4 Field Documentation

7.92.4.1 uint32 OsclAsyncFile::iNumOfRun

7.92.4.2 uint32 OsclAsyncFile::iNumOfRunErr

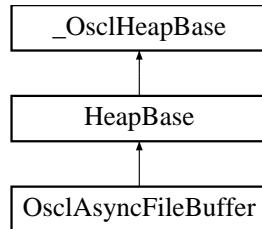
The documentation for this class was generated from the following file:

- [oscl_file_async_read.h](#)

7.93 OsclAsyncFileBuffer Class Reference

```
#include <oscl_file_async_read.h>
```

Inheritance diagram for OsclAsyncFileBuffer:



Public Member Functions

- [`~OsclAsyncFileBuffer \(\)`](#)
- [`void CleanInUse \(\)`](#)
- [`void SetInUse \(\)`](#)
- [`bool IsInUse \(\)`](#)
- [`bool IsValid \(\)`](#)
- [`TOsclFileOffset Offset \(\)`](#)
- [`void SetOffset \(TOsclFileOffset aOffset\)`](#)
- [`int32 Length \(\)`](#)
- [`bool HasThisOffset \(TOsclFileOffset aOffset\)`](#)
- [`int32 Id \(\)`](#)
- [`OsclBuf * Buffer \(\)`](#)
- [`void UpdateData \(\)`](#)
- [`void StartAsyncRead \(bool aStartAsyncRead\)`](#)

Static Public Member Functions

- [`static OsclAsyncFileBuffer * NewL \(int32 aBufferSize, int32 aId\)`](#)

7.93.1 Detailed Description

Buffer class used with async read. We keep an array of these, covering consecutive areas of the file. This allows for some seeking without requiring a full flush & refill each time.

7.93.2 Constructor & Destructor Documentation

7.93.2.1 OsclAsyncFileBuffer::~OsclAsyncFileBuffer ()

7.93.3 Member Function Documentation

7.93.3.1 OsclBuf* OsclAsyncFileBuffer::Buffer ()

7.93.3.2 void OsclAsyncFileBuffer::CleanInUse () [inline]

7.93.3.3 bool OsclAsyncFileBuffer::HasThisOffset (TOsclFileOffset *aOffset*)

7.93.3.4 int32 OsclAsyncFileBuffer::Id () [inline]

7.93.3.5 bool OsclAsyncFileBuffer::IsInUse () [inline]

7.93.3.6 bool OsclAsyncFileBuffer::IsValid () [inline]

7.93.3.7 int32 OsclAsyncFileBuffer::Length () [inline]

7.93.3.8 static OsclAsyncFileBuffer* OsclAsyncFileBuffer::NewL (int32 *aBufferSize*, int32 *aId*)
[static]

7.93.3.9 TOsclFileOffset OsclAsyncFileBuffer::Offset () [inline]

7.93.3.10 void OsclAsyncFileBuffer::SetInUse () [inline]

7.93.3.11 void OsclAsyncFileBuffer::SetOffset (TOsclFileOffset *aOffset*) [inline]

7.93.3.12 void OsclAsyncFileBuffer::StartAsyncRead (bool *aStartAsyncRead*)

7.93.3.13 void OsclAsyncFileBuffer::UpdateData ()

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

- [oscl_file_async_read.h](#)

7.94 OsclAuditCB Class Reference

```
#include <oscl_mem.h>
```

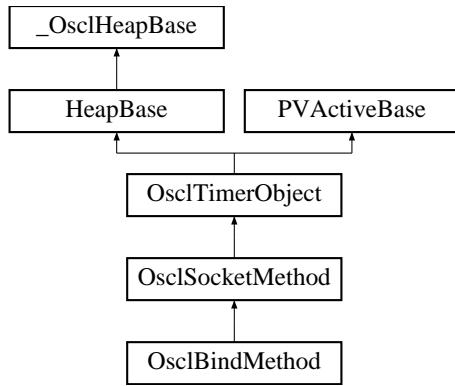
The documentation for this class was generated from the following file:

- [oscl_mem.h](#)

7.95 OsclBindMethod Class Reference

```
#include <oscl_socket_bind.h>
```

Inheritance diagram for OsclBindMethod:



Public Member Functions

- [~OsclBindMethod \(\)](#)
- [TPVSocketEvent Bind \(OsclNetworkAddress &aAddress, int32 aTimeout\)](#)
- [OsclBindRequest * BindRequest \(\)](#)

Static Public Member Functions

- static [OsclBindMethod * NewL \(OsclIPSocketI &c\)](#)

7.95.1 Constructor & Destructor Documentation

7.95.1.1 OsclBindMethod::~OsclBindMethod ()

7.95.2 Member Function Documentation

7.95.2.1 TPVSocketEvent OsclBindMethod::Bind (OsclNetworkAddress & aAddress, int32 aTimeout)

Referenced by OsclUDPSocketI::BindAsync(), and OsclTCPSocketI::BindAsync().

7.95.2.2 OsclBindRequest* OsclBindMethod::BindRequest () [inline]

References OsclSocketMethod::iSocketRequestAO.

7.95.2.3 static OsclBindMethod* OsclBindMethod::NewL (OsclIPSocketI &c) [static]

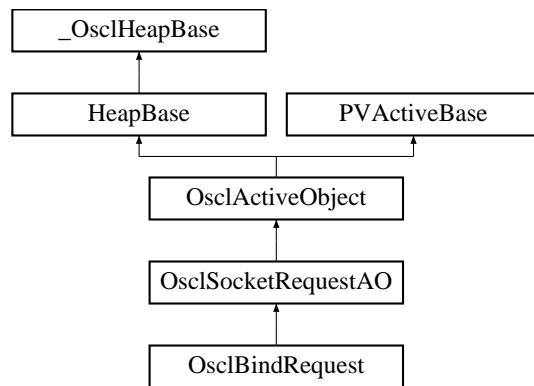
The documentation for this class was generated from the following file:

- [oscl_socket_bind.h](#)

7.96 OsclBindRequest Class Reference

```
#include <oscl_socket_bind.h>
```

Inheritance diagram for OsclBindRequest:



Public Member Functions

- [OsclBindRequest \(OsclSocketMethod &c\)](#)
- [void Bind \(OsclNetworkAddress &aAddress\)](#)

7.96.1 Detailed Description

This is the AO that interacts with the socket server

7.96.2 Constructor & Destructor Documentation

7.96.2.1 OsclBindRequest::OsclBindRequest (OsclSocketMethod & c) [inline]

7.96.3 Member Function Documentation

7.96.3.1 void OsclBindRequest::Bind (OsclNetworkAddress & aAddress)

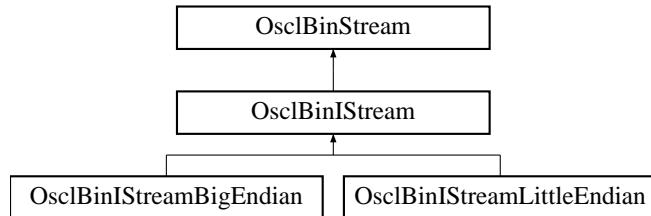
The documentation for this class was generated from the following file:

- [oscl_socket_bind.h](#)

7.97 OsclBinIStream Class Reference

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinIStream:



Public Member Functions

- [OsclBinIStream \(\)](#)
- [~OsclBinIStream \(\)](#)
- [uint8 Read_uint8 \(\)](#)

This method reads an unsigned short from the stream.

- [OsclBinIStream & get \(int8 *data, int32 size\)](#)

This method reads 'length' number of bytes from the stream and places them in 'data'.

7.97.1 Constructor & Destructor Documentation

[7.97.1.1 OsclBinIStream::OsclBinIStream \(\) \[inline\]](#)

[7.97.1.2 OsclBinIStream::~OsclBinIStream \(\) \[inline\]](#)

7.97.2 Member Function Documentation

[7.97.2.1 OsclBinIStream& OsclBinIStream::get \(int8 * data, int32 size\)](#)

This method reads 'length' number of bytes from the stream and places them in 'data'.

Parameters

data is a pointer to the place to store the bytes read

size is the number of bytes to read

[7.97.2.2 uint8 OsclBinIStream::Read_uint8 \(\)](#)

This method reads an unsigned short from the stream.

Returns

Unsigned short read from the stream.

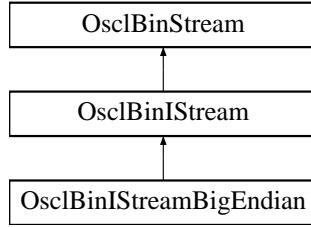
The documentation for this class was generated from the following file:

- [oscl_bin_stream.h](#)

7.98 OsclBinIStreamBigEndian Class Reference

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinIStreamBigEndian:



Public Member Functions

- [OsclBinIStreamBigEndian \(\)](#)
- [void Read \(int8 &data\)](#)
- [void Read \(uint8 &data\)](#)
- [void Read \(int16 &data\)](#)
- [void Read \(uint16 &data\)](#)
- [void Read \(int32 &data\)](#)
- [void Read \(uint32 &data\)](#)
- [OsclBinIStreamBigEndian & operator>> \(int8 &data\)](#)

This method reads a int8 from the stream and stores it in 'data'.

- [OsclBinIStream & operator>> \(uint8 &data\)](#)

This method reads a uint8 from the stream and stores it in 'data'.

- [OsclBinIStreamBigEndian & operator>> \(int16 &data\)](#)

This method reads a int16 from the stream and stores it in 'data'.

- [OsclBinIStreamBigEndian & operator>> \(uint16 &data\)](#)

This method reads a uint16 from the stream and stores it in 'data'.

- [OsclBinIStreamBigEndian & operator>> \(int32 &data\)](#)

This method reads a int32 from the stream and stores it in 'data'.

- [OsclBinIStreamBigEndian & operator>> \(uint32 &data\)](#)

This method reads a uint32 from the stream and stores it in 'data'.

- [uint16 Read_uint16 \(\)](#)

This method reads an unsigned short from the stream.

- [uint32 Read_uint32 \(\)](#)

This method reads an unsigned long from the stream.

7.98.1 Constructor & Destructor Documentation

7.98.1.1 OsclBinIStreamBigEndian::OsclBinIStreamBigEndian () [inline]

7.98.2 Member Function Documentation

7.98.2.1 OsclBinIStreamBigEndian& OsclBinIStreamBigEndian::operator>> (uint32 & data)

This method reads a uint32 from the stream and stores it in 'data'.

7.98.2.2 OsclBinIStreamBigEndian& OsclBinIStreamBigEndian::operator>> (int32 & data)

This method reads a int32 from the stream and stores it in 'data'.

7.98.2.3 OsclBinIStreamBigEndian& OsclBinIStreamBigEndian::operator>> (uint16 & data)

This method reads a uint16 from the stream and stores it in 'data'.

7.98.2.4 OsclBinIStreamBigEndian& OsclBinIStreamBigEndian::operator>> (int16 & data)

This method reads a int16 from the stream and stores it in 'data'.

7.98.2.5 OsclBinIStream& OsclBinIStreamBigEndian::operator>> (uint8 & data)

This method reads a uint8 from the stream and stores it in 'data'.

7.98.2.6 OsclBinIStreamBigEndian& OsclBinIStreamBigEndian::operator>> (int8 & data)

This method reads a int8 from the stream and stores it in 'data'.

7.98.2.7 void OsclBinIStreamBigEndian::Read (uint32 & data)

7.98.2.8 void OsclBinIStreamBigEndian::Read (int32 & data)

7.98.2.9 void OsclBinIStreamBigEndian::Read (uint16 & data)

7.98.2.10 void OsclBinIStreamBigEndian::Read (int16 & data)

7.98.2.11 void OsclBinIStreamBigEndian::Read (uint8 & data)

7.98.2.12 void OsclBinIStreamBigEndian::Read (int8 & data)

7.98.2.13 uint16 OsclBinIStreamBigEndian::Read_uint16 ()

This method reads an unsigned short from the stream.

Returns

Unsigned short read from the stream.

7.98.2.14 uint32 OsclBinIStreamBigEndian::Read_uint32 ()

This method reads an unsigned long from the stream.

Returns

unsigned long read from the stream.

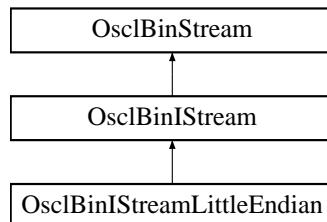
The documentation for this class was generated from the following file:

- [oscl_bin_stream.h](#)

7.99 OsclBinIStreamLittleEndian Class Reference

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinIStreamLittleEndian:



Public Member Functions

- [OsclBinIStreamLittleEndian \(\)](#)
- [OsclBinIStreamLittleEndian & operator>> \(int8 &data\)](#)

This method reads a int8 from the stream and stores it in 'data'.

- [OsclBinIStreamLittleEndian & operator>> \(uint8 &data\)](#)

This method reads a uint8 from the stream and stores it in 'data'.

- [OsclBinIStreamLittleEndian & operator>> \(int16 &data\)](#)

This method reads a int16 from the stream and stores it in 'data'.

- [OsclBinIStreamLittleEndian & operator>> \(uint16 &data\)](#)

This method reads a uint16 from the stream and stores it in 'data'.

- [OsclBinIStreamLittleEndian & operator>> \(int32 &data\)](#)

This method reads a int32 from the stream and stores it in 'data'.

- [OsclBinIStreamLittleEndian & operator>> \(uint32 &data\)](#)

This method reads a uint32 from the stream and stores it in 'data'.

Protected Member Functions

- uint16 [Read_uint16 \(\)](#)
- uint32 [Read_uint32 \(\)](#)

7.99.1 Constructor & Destructor Documentation

7.99.1.1 OsclBinIStreamLittleEndian::OsclBinIStreamLittleEndian () [inline]

7.99.2 Member Function Documentation

7.99.2.1 OsclBinIStreamLittleEndian& OsclBinIStreamLittleEndian::operator>> (uint32 & data)

This method reads a uint32 from the stream and stores it in 'data'.

7.99.2.2 OsclBinIStreamLittleEndian& OsclBinIStreamLittleEndian::operator>> (int32 & data)

This method reads a int32 from the stream and stores it in 'data'.

7.99.2.3 OsclBinIStreamLittleEndian& OsclBinIStreamLittleEndian::operator>> (uint16 & data)

This method reads a uint16 from the stream and stores it in 'data'.

7.99.2.4 OsclBinIStreamLittleEndian& OsclBinIStreamLittleEndian::operator>> (int16 & data)

This method reads a int16 from the stream and stores it in 'data'.

7.99.2.5 OsclBinIStreamLittleEndian& OsclBinIStreamLittleEndian::operator>> (uint8 & data)

This method reads a uint8 from the stream and stores it in 'data'.

7.99.2.6 OsclBinIStreamLittleEndian& OsclBinIStreamLittleEndian::operator>> (int8 & data)

This method reads a int8 from the stream and stores it in 'data'.

7.99.2.7 uint16 OsclBinIStreamLittleEndian::Read_uint16 () [protected]

7.99.2.8 uint32 OsclBinIStreamLittleEndian::Read_uint32 () [protected]

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

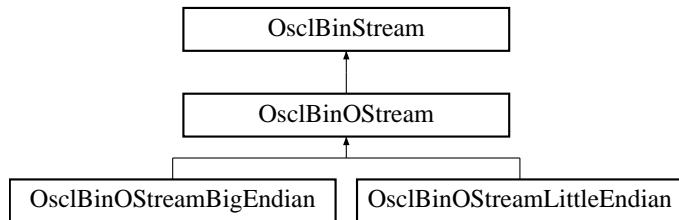
- [oscl_bin_stream.h](#)

7.100 OsclBinOStream Class Reference

Class [OsclBinOStream](#) implements the basic stream functions for an output stream.

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinOStream:



Public Member Functions

- [OsclBinOStream \(\)](#)
- virtual [~OsclBinOStream \(\)](#)
- [OsclBinOStream & write \(const int8 *data, int32 size\)](#)

This method writes 'length' number of bytes stored in 'data' to the stream.

7.100.1 Detailed Description

Class [OsclBinOStream](#) implements the basic stream functions for an output stream.

7.100.2 Constructor & Destructor Documentation

7.100.2.1 [OsclBinOStream::OsclBinOStream \(\) \[inline\]](#)

7.100.2.2 [virtual OsclBinOStream::~OsclBinOStream \(\) \[inline, virtual\]](#)

7.100.3 Member Function Documentation

7.100.3.1 [OsclBinOStream& OsclBinOStream::write \(const int8 * data, int32 size\)](#)

This method writes 'length' number of bytes stored in 'data' to the stream.

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

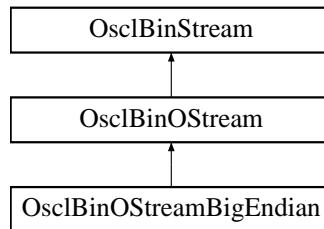
- [oscl_bin_stream.h](#)

7.101 OsclBinOStreamBigEndian Class Reference

Class [OsclBinOStreamBigEndian](#) implements a binary output stream using big endian byte ordering.

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinOStreamBigEndian:



Public Member Functions

- [OsclBinOStreamBigEndian \(\)](#)
- [OsclBinOStreamBigEndian & operator<< \(const int8 &data\)](#)
This method writes a int8 from 'data' to the stream.
- [OsclBinOStreamBigEndian & operator<< \(const uint8 &data\)](#)
This method writes a uint8 from 'data' to the stream.
- [OsclBinOStreamBigEndian & operator<< \(const int16 &data\)](#)
This method writes a int16 from 'data' to the stream.
- [OsclBinOStreamBigEndian & operator<< \(const uint16 &data\)](#)
This method writes a uint16 from 'data' to the stream.
- [OsclBinOStreamBigEndian & operator<< \(const int32 &data\)](#)
This method writes a int32 from 'data' to the stream.
- [OsclBinOStreamBigEndian & operator<< \(const uint32 &data\)](#)
This method writes a uint32 from 'data' to the stream.

Protected Member Functions

- void [WriteUnsignedShort \(const uint16 data\)](#)
- void [WriteUnsignedLong \(const uint32 data\)](#)

7.101.1 Detailed Description

Class [OsclBinOStreamBigEndian](#) implements a binary output stream using big endian byte ordering.

7.101.2 Constructor & Destructor Documentation

7.101.2.1 OsclBinOStreamBigEndian::OsclBinOStreamBigEndian () [inline]

7.101.3 Member Function Documentation

7.101.3.1 OsclBinOStreamBigEndian& OsclBinOStreamBigEndian::operator<< (const uint32 & data)

This method writes a uint32 from 'data' to the stream.

7.101.3.2 OsclBinOStreamBigEndian& OsclBinOStreamBigEndian::operator<< (const int32 & data)

This method writes a int32 from 'data' to the stream.

7.101.3.3 OsclBinOStreamBigEndian& OsclBinOStreamBigEndian::operator<< (const uint16 & data)

This method writes a uint16 from 'data' to the stream.

7.101.3.4 OsclBinOStreamBigEndian& OsclBinOStreamBigEndian::operator<< (const int16 & data)

This method writes a int16 from 'data' to the stream.

7.101.3.5 OsclBinOStreamBigEndian& OsclBinOStreamBigEndian::operator<< (const uint8 & data)

This method writes a uint8 from 'data' to the stream.

7.101.3.6 OsclBinOStreamBigEndian& OsclBinOStreamBigEndian::operator<< (const int8 & data)

This method writes a int8 from 'data' to the stream.

7.101.3.7 void OsclBinOStreamBigEndian::WriteUnsignedLong (const uint32 data) [protected]

7.101.3.8 void OsclBinOStreamBigEndian::WriteUnsignedShort (const uint16 data) [protected]

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

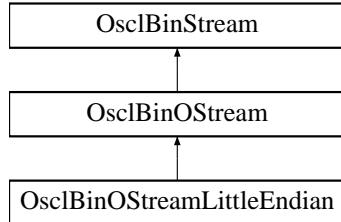
- [oscl_bin_stream.h](#)

7.102 OsclBinOStreamLittleEndian Class Reference

Class [OsclBinOStreamLittleEndian](#) implements a binary output stream using little endian byte ordering.

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinOStreamLittleEndian:



Public Member Functions

- [OsclBinOStreamLittleEndian \(\)](#)
- [OsclBinOStreamLittleEndian & operator<< \(const int8 &data\)](#)
This method writes a int8 from 'data' to the stream.
- [OsclBinOStreamLittleEndian & operator<< \(const uint8 &data\)](#)
This method writes a uint8 from 'data' to the stream.
- [OsclBinOStreamLittleEndian & operator<< \(const int16 &data\)](#)
This method writes a int16 from 'data' to the stream.
- [OsclBinOStreamLittleEndian & operator<< \(const uint16 &data\)](#)
This method writes a uint16 from 'data' to the stream.
- [OsclBinOStreamLittleEndian & operator<< \(const int32 &data\)](#)
This method writes a int32 from 'data' to the stream.
- [OsclBinOStreamLittleEndian & operator<< \(const uint32 &data\)](#)
This method writes a uint32 from 'data' to the stream.

Protected Member Functions

- void [WriteUnsignedShort \(const uint16 data\)](#)
This method writes 'data' (unsigned short) to the stream.
- void [WriteUnsignedLong \(const uint32 data\)](#)
This method writes 'data' (unsigned long) to the stream.

7.102.1 Detailed Description

Class [OsclBinOStreamLittleEndian](#) implements a binary output stream using little endian byte ordering.

7.102.2 Constructor & Destructor Documentation

7.102.2.1 OsclBinOStreamLittleEndian::OsclBinOStreamLittleEndian () [inline]

7.102.3 Member Function Documentation

7.102.3.1 OsclBinOStreamLittleEndian& OsclBinOStreamLittleEndian::operator<< (const uint32 & data)

This method writes a uint32 from 'data' to the stream.

7.102.3.2 OsclBinOStreamLittleEndian& OsclBinOStreamLittleEndian::operator<< (const int32 & data)

This method writes a int32 from 'data' to the stream.

7.102.3.3 OsclBinOStreamLittleEndian& OsclBinOStreamLittleEndian::operator<< (const uint16 & data)

This method writes a uint16 from 'data' to the stream.

7.102.3.4 OsclBinOStreamLittleEndian& OsclBinOStreamLittleEndian::operator<< (const int16 & data)

This method writes a int16 from 'data' to the stream.

7.102.3.5 OsclBinOStreamLittleEndian& OsclBinOStreamLittleEndian::operator<< (const uint8 & data)

This method writes a uint8 from 'data' to the stream.

7.102.3.6 OsclBinOStreamLittleEndian& OsclBinOStreamLittleEndian::operator<< (const int8 & data)

This method writes a int8 from 'data' to the stream.

7.102.3.7 void OsclBinOStreamLittleEndian::WriteUnsignedLong (const uint32 data) [protected]

This method writes 'data' (unsigned long) to the stream.

7.102.3.8 void OsclBinOStreamLittleEndian::WriteUnsignedShort (const uint16 data) [protected]

This method writes 'data' (unsigned short) to the stream.

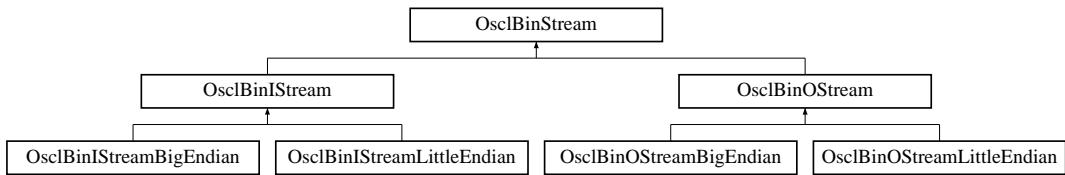
The documentation for this class was generated from the following file:

- [oscl_bin_stream.h](#)

7.103 OsclBinStream Class Reference

```
#include <oscl_bin_stream.h>
```

Inheritance diagram for OsclBinStream:



Public Member Functions

- [OsclBinStream \(\)](#)
- [bool good \(\)](#)

This method determines if the stream is ok.

- [bool eof \(\)](#)

This method determines if end of stream has been reached.

- [bool fail \(\)](#)

This method determines if an error has occurred in the stream.

- [void Attach \(void *buffer, uint32 l_length\)](#)

This method specifies the data buffer to attach to the stream.

- [void Attach \(const uint32 numFragments, const OsclMemoryFragment *fragPtr\)](#)

This method specifies the memory fragment array to use for input.

- [uint32 tellg \(\)](#)

This method returns the current stream position.

- [void Seek \(uint32 absPosition\)](#)

This method seeks to the specified stream position.

- [uint32 PositionInBlock \(\)](#)

This method returns the current stream position.

- [void seekFromCurrentPosition \(int32 offset\)](#)

This method seeks to the specified offset from the current location.

Protected Types

- enum [state_t { GOOD_STATE, EOF_STATE, FAIL_STATE }](#)

Protected Member Functions

- bool [ReserveSpace](#) (uint32 size)
- bool [HaveRoomInCurrentBlock](#) (uint32 size)

Protected Attributes

- [state_t state](#)
- uint8 * [pBasePosition](#)
- uint8 * [pPosition](#)
- uint32 [length](#)
- const [OsclMemoryFragment](#) * [nextFragPtr](#)
- int [fragsLeft](#)
- const [OsclMemoryFragment](#) * [firstFragPtr](#)
- int [numFrags](#)
- [OsclMemoryFragment](#) [specialFragBuffer](#)

7.103.1 Member Enumeration Documentation

7.103.1.1 enum OsclBinStream::state_t [protected]

Enumerator:

GOOD_STATE
EOF_STATE
FAIL_STATE

7.103.2 Constructor & Destructor Documentation

7.103.2.1 OsclBinStream::OsclBinStream () [inline]

7.103.3 Member Function Documentation

7.103.3.1 void OsclBinStream::Attach (const uint32 *numFragments*, const OsclMemoryFragment **fragPtr*)

This method specifies the memory fragment array to use for input.

This array should remain static while the stream refers to it.

Parameters

numFragments is the number of elements in the array
fragPtr is the pointer to the MemoryFragment array

7.103.3.2 void OsclBinStream::Attach (void **buffer*, uint32 *l_length*)

This methods specifies the data buffer to attach to the stream.

Parameters

buffer will provide the input
length of the buffer

7.103.3.3 bool OsclBinStream::eof ()

This method determines if end of stream has been reached.

Returns

true if end of stream has been reached.

7.103.3.4 bool OsclBinStream::fail ()

This method determines if an error has occurred in the stream.

Returns

true if an error occurred in the stream.

7.103.3.5 bool OsclBinStream::good ()

This method determines if the stream is ok.

Returns

true if stream is ok.

7.103.3.6 bool OsclBinStream::HaveRoomInCurrentBlock (uint32 *size*) [protected]**7.103.3.7 uint32 OsclBinStream::PositionInBlock ()**

This method returns the current stream position.

Returns

stream position.

7.103.3.8 bool OsclBinStream::ReserveSpace (uint32 *size*) [protected]**7.103.3.9 void OsclBinStream::Seek (uint32 *absPosition*)**

This method seeks to the specified stream position.

Returns

Stream position.

7.103.3.10 void OsclBinStream::seekFromCurrentPosition (int32 *offset*)

This method seeks to the specified offset from the current location.

Parameters

offset from current stream location

7.103.3.11 uint32 OsclBinStream::tellg ()

This method returns the current stream position.

This method is to be used if the input stream is a pointer to the MemoryFragment array

Returns

Stream position.

7.103.4 Field Documentation**7.103.4.1 const OsclMemoryFragment* OsclBinStream::firstFragPtr [protected]****7.103.4.2 int OsclBinStream::fragsLeft [protected]****7.103.4.3 uint32 OsclBinStream::length [protected]****7.103.4.4 const OsclMemoryFragment* OsclBinStream::nextFragPtr [protected]****7.103.4.5 int OsclBinStream::numFrags [protected]****7.103.4.6 uint8* OsclBinStream::pBasePosition [protected]****7.103.4.7 uint8* OsclBinStream::pPosition [protected]****7.103.4.8 OsclMemoryFragment OsclBinStream::specialFragBuffer [protected]****7.103.4.9 state_t OsclBinStream::state [protected]**

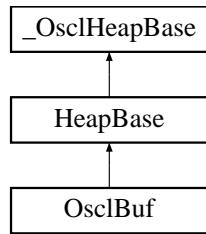
The documentation for this class was generated from the following file:

- [oscl_bin_stream.h](#)

7.104 OsclBuf Class Reference

```
#include <oscl_file_async_read.h>
```

Inheritance diagram for OsclBuf:



Public Member Functions

- [OsclBuf](#) (int32 size)
- int32 [Length](#) ()
- [OsclPtr Des](#) ()
- [OsclPtrC DesC](#) ()

Static Public Member Functions

- static [OsclBuf * NewL](#) (int32 size)
- static void [Delete](#) ([OsclBuf](#) *a)

Data Fields

- uint8 * [iBuffer](#)
- int32 [iMaxLength](#)
- int32 [iLength](#)

7.104.1 Constructor & Destructor Documentation

7.104.1.1 [OsclBuf::OsclBuf](#) (int32 size) [inline]

7.104.2 Member Function Documentation

7.104.2.1 static void [OsclBuf::Delete](#) ([OsclBuf](#) *a) [inline, static]

References [iBuffer](#), [OSCL_DELETE](#), and [OSCL_FREE](#).

7.104.2.2 [OsclPtr OsclBuf::Des](#) () [inline]

References [iBuffer](#), [iLength](#), and [iMaxLength](#).

7.104.2.3 OsclPtrC OsclBuf::DesC () [inline]

References iBuffer, iLength, and iMaxLength.

7.104.2.4 int32 OsclBuf::Length () [inline]

References iLength.

7.104.2.5 static OsclBuf* OsclBuf::NewL (int32 size) [inline, static]

References OsclError::Leave(), OSCL_DELETE, OSCL_MALLOC, OSCL_NEW, and OsclErrNoMemory.

7.104.3 Field Documentation

7.104.3.1 uint8* OsclBuf::iBuffer

Referenced by Delete(), Des(), and DesC().

7.104.3.2 int32 OsclBuf::iLength

Referenced by Des(), DesC(), and Length().

7.104.3.3 int32 OsclBuf::iMaxLength

Referenced by Des(), and DesC().

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

- [oscl_file_async_read.h](#)

7.105 Oscl_File::OsclCacheObserver Class Reference

```
#include <oscl_file_io.h>
```

Public Member Functions

- virtual [~OsclCacheObserver \(\)](#)
- virtual [OsclFileCacheBuffer * ChooseCurCache \(OsclFileCache &aContext, TOsclFileOffset aPos\)=0](#)

7.105.1 Detailed Description

For defining a cache observer. Cache observer can implement customized cache schemes by replacing the SetCachePosition routine.

7.105.2 Constructor & Destructor Documentation

7.105.2.1 virtual Oscl_File::OsclCacheObserver::~OsclCacheObserver () [inline, virtual]

7.105.3 Member Function Documentation

7.105.3.1 virtual OsclFileCacheBuffer* Oscl_File::OsclCacheObserver::ChooseCurCache (OsclFileCache & aContext, TOsclFileOffset aPos) [pure virtual]

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

- [oscl_file_io.h](#)

7.106 OsclCompareLess< T > Class Template Reference

```
#include <oscl_priqueue.h>
```

Public Member Functions

- int [compare](#) (T &a, T &b) const

```
template<class T> class OsclCompareLess< T >
```

7.106.1 Member Function Documentation

7.106.1.1 template<class T > int OsclCompareLess< T >::compare (T & a, T & b) const [inline]

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

- [oscl_priqueue.h](#)

7.107 OsclComponentRegistry Class Reference

```
#include <oscl_registry_serv_impl.h>
```

Public Member Functions

- [OsclComponentRegistry \(\)](#)
- [~OsclComponentRegistry \(\)](#)
- int32 [Register \(uint32 &alid, OSCL_String &, OsclComponentFactory\)](#)
- int32 [Unregister \(OSCL_String &\)](#)
- int32 [Unregister \(uint32\)](#)
- [OsclComponentFactory FindExact \(OSCL_String &\)](#)
- void [FindHierarchical \(OSCL_String &, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &\)](#)
- void [OpenSession \(\)](#)
- void [CloseSession \(\)](#)

Data Fields

- [OsclComponentRegistryData iData](#)
- [OsclMutex iMutex](#)
- uint32 [iComponentIdCounter](#)
- uint32 [iNumSessions](#)

7.107.1 Detailed Description

Thread-safe singleton registry object.

7.107.2 Constructor & Destructor Documentation

7.107.2.1 `OsclComponentRegistry::OsclComponentRegistry ()`

7.107.2.2 `OsclComponentRegistry::~OsclComponentRegistry ()`

7.107.3 Member Function Documentation

7.107.3.1 `void OsclComponentRegistry::CloseSession ()`

7.107.3.2 `OsclComponentFactory OsclComponentRegistry::FindExact (OSCL_String &)`

7.107.3.3 `void OsclComponentRegistry::FindHierarchical (OSCL_String &, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &)`

7.107.3.4 `void OsclComponentRegistry::OpenSession ()`

7.107.3.5 `int32 OsclComponentRegistry::Register (uint32 & aId, OSCL_String &, OsclComponentFactory)`

7.107.3.6 `int32 OsclComponentRegistry::Unregister (uint32)`

7.107.3.7 `int32 OsclComponentRegistry::Unregister (OSCL_String &)`

7.107.4 Field Documentation

7.107.4.1 `uint32 OsclComponentRegistry::iComponentIdCounter`

7.107.4.2 `OsclComponentRegistryData OsclComponentRegistry::iData`

7.107.4.3 `OsclMutex OsclComponentRegistry::iMutex`

7.107.4.4 `uint32 OsclComponentRegistry::iNumSessions`

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

- [oscl_registry_serv_impl.h](#)

7.108 OsclComponentRegistryData Class Reference

```
#include <oscl_registry_serv_impl.h>
```

Public Member Functions

- `OsclComponentRegistryElement * Find (OSCL_String &, bool aExact)`

Data Fields

- `Oscl_Vector< OsclComponentRegistryElement, OsclMemAllocator > iVec`

7.108.1 Detailed Description

Registry

7.108.2 Member Function Documentation

7.108.2.1 `OsclComponentRegistryElement* OsclComponentRegistryData::Find (OSCL_String &, bool aExact)`

7.108.3 Field Documentation

7.108.3.1 `Oscl_Vector<OsclComponentRegistryElement, OsclMemAllocator> OsclComponentRegistryData::iVec`

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

- `oscl_registry_serv_impl.h`

7.109 OsclComponentRegistryElement Class Reference

```
#include <oscl_registry_serv_impl.h>
```

Public Member Functions

- `OsclComponentRegistryElement (OSCL_String &, OsclComponentFactory)`
- `OsclComponentRegistryElement (const OsclComponentRegistryElement &)`
- `OsclComponentRegistryElement & operator= (const OsclComponentRegistryElement &src)`
- `~OsclComponentRegistryElement ()`
- `bool Match (OSCL_String &aStr, bool aExact)`

Data Fields

- `OSCL_String * iId`
- `OsclComponentFactory iFactory`
- `uint32 iComponentId`

7.109.1 Detailed Description

OS-independent declarations.

Data for each registered component.

7.109.2 Constructor & Destructor Documentation

7.109.2.1 OsclComponentRegistryElement::OsclComponentRegistryElement (OSCL_String &, OsclComponentFactory)

7.109.2.2 OsclComponentRegistryElement::OsclComponentRegistryElement (const OsclComponentRegistryElement &)

7.109.2.3 OsclComponentRegistryElement::~OsclComponentRegistryElement ()

7.109.3 Member Function Documentation

7.109.3.1 bool OsclComponentRegistryElement::Match (OSCL_String & aStr, bool aExact)

7.109.3.2 OsclComponentRegistryElement& OsclComponentRegistryElement::operator= (const OsclComponentRegistryElement & src)

7.109.4 Field Documentation

7.109.4.1 uint32 OsclComponentRegistryElement::iComponentId

7.109.4.2 OsclComponentFactory OsclComponentRegistryElement::iFactory

7.109.4.3 OSCL_String* OsclComponentRegistryElement::iId

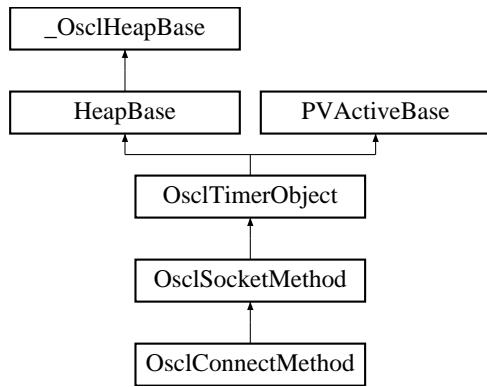
The documentation for this class was generated from the following file:

- [oscl_registry_serv_impl.h](#)

7.110 OsclConnectMethod Class Reference

```
#include <oscl_socket_connect.h>
```

Inheritance diagram for OsclConnectMethod:



Public Member Functions

- `~OsclConnectMethod ()`
- `TPVSocketEvent Connect (OsclNetworkAddress &aAddress, int32 aTimeout)`
- `OsclConnectRequest * ConnectRequest ()`

Static Public Member Functions

- static `OsclConnectMethod * NewL (OsclIPSocketI &c)`

7.110.1 Constructor & Destructor Documentation

7.110.1.1 OsclConnectMethod::~OsclConnectMethod ()

7.110.2 Member Function Documentation

7.110.2.1 TPVSocketEvent OsclConnectMethod::Connect (OsclNetworkAddress & aAddress, int32 aTimeout)

Referenced by `OsclTCPSocketI::Connect()`.

7.110.2.2 OsclConnectRequest* OsclConnectMethod::ConnectRequest () [inline]

References `OsclSocketMethod::iSocketRequestAO`.

7.110.2.3 static OsclConnectMethod* OsclConnectMethod::NewL (OsclIPSocketI & c) [static]

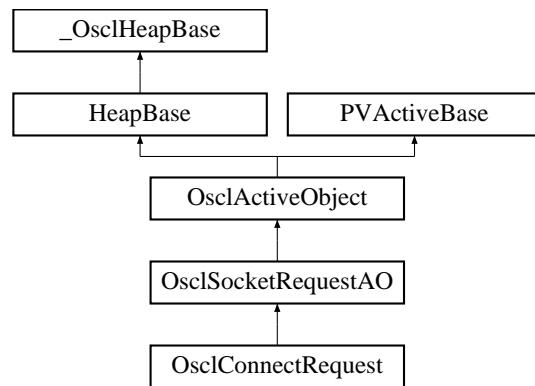
The documentation for this class was generated from the following file:

- [oscl_socket_connect.h](#)

7.111 OsclConnectRequest Class Reference

```
#include <oscl_socket_connect.h>
```

Inheritance diagram for OsclConnectRequest:



Public Member Functions

- [OsclConnectRequest \(OsclSocketMethod &c\)](#)
- void [Connect \(OsclNetworkAddress &aAddress\)](#)

7.111.1 Detailed Description

This is the AO that interacts with the socket server

7.111.2 Constructor & Destructor Documentation

7.111.2.1 OsclConnectRequest::OsclConnectRequest (OsclSocketMethod & c) [inline]

7.111.3 Member Function Documentation

7.111.3.1 void OsclConnectRequest::Connect (OsclNetworkAddress & aAddress)

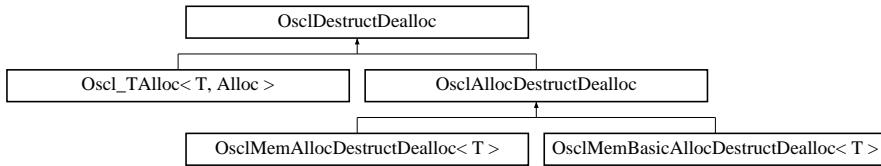
The documentation for this class was generated from the following file:

- [oscl_socket_connect.h](#)

7.112 OsclDestructDealloc Class Reference

```
#include <oscl_defalloc.h>
```

Inheritance diagram for OsclDestructDealloc:



Public Member Functions

- virtual [~OsclDestructDealloc \(\)](#)
- virtual void [destruct_and_dealloc \(OsclAny *ptr\)=0](#)

7.112.1 Constructor & Destructor Documentation

7.112.1.1 virtual OsclDestructDealloc::~OsclDestructDealloc () [inline, virtual]

7.112.2 Member Function Documentation

7.112.2.1 virtual void OsclDestructDealloc::destruct_and_dealloc (OsclAny *ptr) [pure virtual]

Implemented in [Oscl_TAlloc< T, Alloc >](#), [OsclMemAllocDestructDealloc< T >](#), [OsclMemBasicAllocDestructDealloc< T >](#), [Oscl_TAlloc< entry_type, Alloc >](#), [Oscl_TAlloc< node_type, alloc_type >](#), [Oscl_TAlloc< char, alloc_type >](#), [Oscl_TAlloc< tag_base_unit, Alloc >](#), [Oscl_TAlloc< PVLogger, alloc_type >](#), and [Oscl_TAlloc< node_type, Alloc >](#).

Referenced by [OsclRefCounterMTDA< LockType >::removeRef\(\)](#), and [OsclRefCounterDA::removeRef\(\)](#).

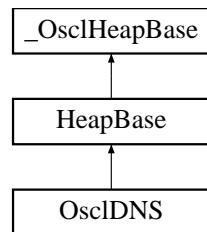
The documentation for this class was generated from the following file:

- [oscl_defalloc.h](#)

7.113 OsclDNS Class Reference

```
#include <oscl_dns.h>
```

Inheritance diagram for OsclDNS:



Public Member Functions

- OSCL_IMPORT_REF ~OsclDNS ()
- OSCL_IMPORT_REF TPVDNSEvent GetHostByName (char *name, OsclNetworkAddress &addr, int32 aTimeoutMsec=-1, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aAddressList=NULL)
- OSCL_IMPORT_REF void CancelGetHostByName ()

Static Public Member Functions

- static OSCL_IMPORT_REF OsclDNS * NewL (Oscl_DefAlloc &alloc, OsclSocketServ &aServ, OsclDNSObserver &aObserver, uint32 aId)

Friends

- class OsclDNSRequestAO

7.113.1 Detailed Description

The DNS class

7.113.2 Member Function Documentation

7.113.2.1 static OSCL_IMPORT_REF OsclDNS* OsclDNS::NewL (Oscl_DefAlloc & alloc, OsclSocketServ & aServ, OsclDNSObserver & aObserver, uint32 aId) [static]

DNS object creation.

Parameters

- alloc*,: Memory allocator
- aServ*,: Socket server.
- aObserver*,: DNS Event observer

aId,: Unique ID for this DNS object. This ID will be included in all callbacks associated with this DNS object.

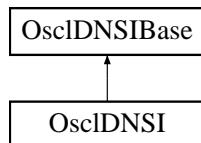
The documentation for this class was generated from the following file:

- [oscl_dns.h](#)

7.114 OsclDNSI Class Reference

```
#include <oscl_dns_imp_pv.h>
```

Inheritance diagram for OsclDNSI:



Public Member Functions

- [`~OsclDNSI \(\)`](#)
- [`int32 Open \(OsclSocketServI &aServer\)`](#)
- [`int32 Close \(\)`](#)
- [`void GetHostByName \(GetHostByNameParam &, OsclDNSRequestAO &\)`](#)
- [`void GetHostByNameSuccess \(GetHostByNameParam &\)`](#)
- [`void GetNextHost \(OsclDNSRequestAO &\)`](#)
- [`void GetNextHostSuccess \(GetHostByNameParam &\)`](#)
- [`bool GetHostByNameResponseContainsAliasInfo \(\)`](#)

Static Public Member Functions

- [`static OsclDNSI * NewL \(Oscl_DefAlloc &a\)`](#)

Friends

- class [OsclDNSRequest](#)
- class [OsclGetHostByNameRequest](#)
- class [DNSRequestParam](#)

7.114.1 Detailed Description

[OsclDNSI](#), non-Symbian implementation

7.114.2 Constructor & Destructor Documentation

7.114.2.1 [OsclDNSI::~OsclDNSI \(\)](#)

7.114.3 Member Function Documentation

7.114.3.1 [int32 OsclDNSI::Close \(\) \[virtual\]](#)

Implements [OsclDNSIBase](#).

7.114.3.2 void OsclDNSI::GetHostByName (GetHostNameParam &, OsclDNSRequestAO &) [virtual]

Implements [OsclDNSIBase](#).

7.114.3.3 bool OsclDNSI::GetHostByNameResponseContainsAliasInfo () [virtual]

Implements [OsclDNSIBase](#).

7.114.3.4 void OsclDNSI::GetHostByNameSuccess (GetHostNameParam &) [virtual]

Implements [OsclDNSIBase](#).

7.114.3.5 void OsclDNSI::GetNextHost (OsclDNSRequestAO &) [virtual]

Implements [OsclDNSIBase](#).

7.114.3.6 void OsclDNSI::GetNextHostSuccess (GetHostNameParam &) [virtual]

Implements [OsclDNSIBase](#).

7.114.3.7 static OsclDNSI* OsclDNSI::NewL (Oscl_DefAlloc & a) [static]

7.114.3.8 int32 OsclDNSI::Open (OsclSocketServI & aServer) [virtual]

Implements [OsclDNSIBase](#).

7.114.4 Friends And Related Function Documentation

7.114.4.1 friend class DNSRequestParam [friend]

7.114.4.2 friend class OsclDNSRequest [friend]

Reimplemented from [OsclDNSIBase](#).

7.114.4.3 friend class OsclGetHostByNameRequest [friend]

Reimplemented from [OsclDNSIBase](#).

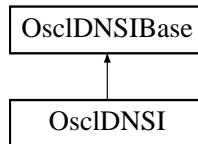
The documentation for this class was generated from the following file:

- [oscl_dns_imp_pv.h](#)

7.115 OsclDNSIBase Class Reference

```
#include <oscl_dns_imp_base.h>
```

Inheritance diagram for OsclDNSIBase:



Public Member Functions

- virtual ~OsclDNSIBase ()
- virtual int32 Open (OsclSocketServI &aServer)=0
- virtual int32 Close ()=0
- virtual void GetHostByName (GetHostByNameParam &, OsclDNSRequestAO &)=0
- virtual void GetHostByNameSuccess (GetHostByNameParam &)=0
- virtual bool GetHostByNameResponseContainsAliasInfo ()=0
- virtual void GetNextHost (OsclDNSRequestAO &)=0
- virtual void GetNextHostSuccess (GetHostByNameParam &)=0
- void CancelFxn (TPVDNSFxn)

Protected Member Functions

- OsclDNSIBase (Oscl_DefAlloc &a)
- virtual bool IsReady (OsclDNSRequestAO &aObject)=0
- virtual void CancelGetHostByName ()=0

Protected Attributes

- Oscl_DefAlloc & iAlloc
- OsclSocketServI * iSocketServ

Friends

- class OsclDNSRequest
- class OsclGetHostByNameRequest

7.115.1 Detailed Description

[OsclDNSIBase](#) is a common base class for all implementations.

7.115.2 Constructor & Destructor Documentation

7.115.2.1 `virtual OsclDNSIBase::~OsclDNSIBase () [virtual]`

7.115.2.2 `OsclDNSIBase::OsclDNSIBase (Oscl_DefAlloc & a) [protected]`

7.115.3 Member Function Documentation

7.115.3.1 `void OsclDNSIBase::CancelFxn (TPVDNSFxn)`

7.115.3.2 `virtual void OsclDNSIBase::CancelGetHostName () [protected, pure virtual]`

7.115.3.3 `virtual int32 OsclDNSIBase::Close () [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.3.4 `virtual void OsclDNSIBase::GetHostName (GetHostNameParam &, OsclDNSRequestAO &) [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.3.5 `virtual bool OsclDNSIBase::GetHostNameResponseContainsAliasInfo () [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.3.6 `virtual void OsclDNSIBase::GetHostNameSuccess (GetHostNameParam &) [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.3.7 `virtual void OsclDNSIBase::GetNextHost (OsclDNSRequestAO &) [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.3.8 `virtual void OsclDNSIBase::GetNextHostSuccess (GetHostNameParam &) [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.3.9 `virtual bool OsclDNSIBase::IsReady (OsclDNSRequestAO & aObject) [protected, pure virtual]`

7.115.3.10 `virtual int32 OsclDNSIBase::Open (OsclSocketServI & aServer) [pure virtual]`

Implemented in [OsclDNSI](#).

7.115.4 Friends And Related Function Documentation

7.115.4.1 friend class OsclDNSRequest [friend]

Reimplemented in [OsclDNSI](#).

7.115.4.2 friend class OsclGetHostByNameRequest [friend]

Reimplemented in [OsclDNSI](#).

7.115.5 Field Documentation

7.115.5.1 Oscl_DefAlloc& OsclDNSIBase::iAlloc [protected]

7.115.5.2 OsclSocketServI* OsclDNSIBase::iSocketServ [protected]

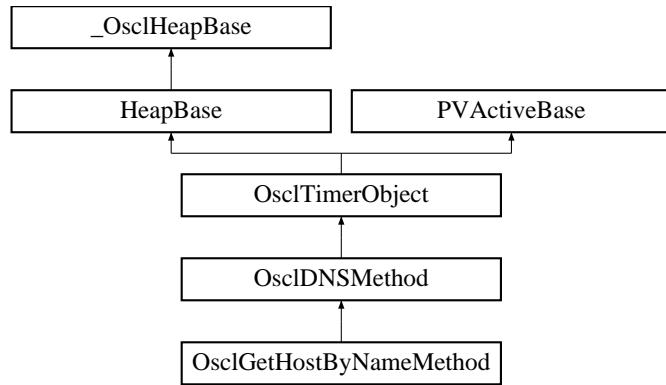
The documentation for this class was generated from the following file:

- [oscl_dns_imp_base.h](#)

7.116 OsclDNSMethod Class Reference

```
#include <oscl_dns_method.h>
```

Inheritance diagram for OsclDNSMethod:



Public Member Functions

- [OsclDNSMethod \(Oscl_DefAlloc &a, const char *name, TPVDNSFxn fxn\)](#)
- void [Abort \(\)](#)
- void [AbortAll \(\)](#)
- void [CancelMethod \(\)](#)
- void [Run \(\)](#)

Data Fields

- [OsclDNSObserver * iDNSObserver](#)
- uint32 [iId](#)
- [Oscl_DefAlloc & iAlloc](#)
- [TPVDNSFxn iDNSFxn](#)
- [PVLogger * iLogger](#)

Protected Member Functions

- void [ConstructL \(OsclDNSObserver *aObserver, OsclDNSRequestAO *aAO, uint32 aId\)](#)
- bool [StartMethod \(int32 aTimeoutMsec\)](#)
- void [MethodDone \(\)](#)

Protected Attributes

- [OsclDNSRequestAO * iDNSRequestAO](#)

7.116.1 Detailed Description

This is the base class for all socket methods. It provides the timeout on socket requests.

7.116.2 Constructor & Destructor Documentation

7.116.2.1 OsclDNSMethod::OsclDNSMethod (Oscl_DefAlloc & *a*, const char * *name*, TPVDNSFxn *fxn*) [inline]

References PVLogger::GetLoggerObject(), and iLogger.

7.116.3 Member Function Documentation

7.116.3.1 void OsclDNSMethod::Abort ()

7.116.3.2 void OsclDNSMethod::AbortAll ()

7.116.3.3 void OsclDNSMethod::CancelMethod ()

7.116.3.4 void OsclDNSMethod::ConstructL (OsclDNSObserver * *aObserver*, OsclDNSRequestAO * *aAO*, uint32 *aId*) [protected]

7.116.3.5 void OsclDNSMethod::MethodDone () [protected]

7.116.3.6 void OsclDNSMethod::Run () [virtual]

Handles an active object's request completion event.

A derived class must provide an implementation to handle the completed request. If appropriate, it may issue another request.

The function is called by the active scheduler when a request completion event occurs, i.e. after the active scheduler's WaitForAnyRequest() function completes.

Before calling this active object's [Run\(\)](#) function, the active scheduler has:

1. decided that this is the highest priority active object with a completed request
2. marked this active object's request as complete (i.e. the request is no longer outstanding)

[Run\(\)](#) runs under a trap harness in the active scheduler. If it leaves, then the active scheduler calls ExecError() to handle the leave.

Note that once the active scheduler's Start() function has been called, all user code is run under one of the program's active object's [Run\(\)](#) or [RunError\(\)](#) functions.

Implements [PVActiveBase](#).

7.116.3.7 bool OsclDNSMethod::StartMethod (int32 *aTimeoutMsec*) [protected]

7.116.4 Field Documentation

7.116.4.1 Oscl_DefAlloc& OsclDNSMethod::iAlloc

7.116.4.2 TPVDNSFx OsclDNSMethod::iDNSFx

7.116.4.3 OsclDNSObserver* OsclDNSMethod::iDNSObserver

7.116.4.4 OsclDNSRequestAO* OsclDNSMethod::iDNSRequestAO [protected]

7.116.4.5 uint32 OsclDNSMethod::iId

7.116.4.6 PVLogger* OsclDNSMethod::iLogger

Referenced by OsclDNSRequestAO::ConstructL(), and OsclDNSMethod().

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

- [oscl_dns_method.h](#)

7.117 OsclDNSObserver Class Reference

```
#include <oscl_dns.h>
```

Public Member Functions

- virtual OSCL_IMPORT_REF void [HandleDNSEvent](#) (int32 aId, [TPVDNSFxn](#) aFxn, [TPVDNSEvent](#) aEvent, int32 aError)=0
- virtual [~OsclDNSObserver](#) ()

7.117.1 Detailed Description

DNS event observer. The client implements this to get asynchronous command completion.

7.117.2 Member Function Documentation

7.117.2.1 virtual OSCL_IMPORT_REF void OsclDNSObserver::HandleDNSEvent (int32 *aId*, *TPVDNSFxn* *aFxn*, *TPVDNSEvent* *aEvent*, int32 *aError*) [pure virtual]

DNS Event callback.

Parameters

aId,: The ID that was supplied when the DNS object was created.

aEvent,: Function completion event. Will be EPVDNSSuccess, EPVDNSTimeout, or EPVDNSFailure.

aError,: When the event is EPVDNSFailure, this may contain a platform-specific error code, or zero if none is available.

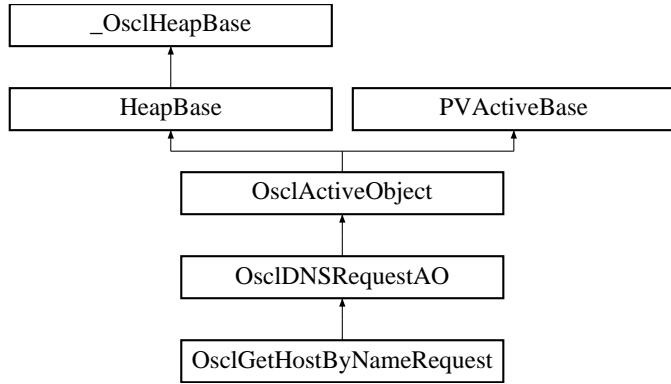
The documentation for this class was generated from the following file:

- [oscl_dns.h](#)

7.118 OsclDNSRequestAO Class Reference

```
#include <oscl_dns_method.h>
```

Inheritance diagram for OsclDNSRequestAO:



Protected Member Functions

- `OsclDNSRequestAO` (const char *name)
- void `ConstructL` (`OsclDNSI` *aDNS, `OsclDNSMethod` *aMethod)
- void `Abort` ()
- void `NewRequest` ()
- void `RequestDone` ()
- int `GetSocketError` ()
- `OsclSocketServI` * `Serv` ()
- void `DoCancel` ()
- void `Run` ()
- virtual void `Success` ()
- virtual void `Failure` ()
- virtual void `Cancelled` ()

Protected Attributes

- `OsclDNSI` * `iDNSI`
- `OsclDNSMethod` * `iDNSMethod`
- int32 `iSocketError`
- `PVLogger` * `iLogger`

Friends

- class `OsclDNSI`
- class `OsclDNSMethod`
- class `OsclDNSRequest`
- class `GetHostNameParam`

7.118.1 Detailed Description

This is the base class for all requests to the socket server.

7.118.2 Constructor & Destructor Documentation

7.118.2.1 OsclDNSRequestAO::OsclDNSRequestAO (const char * *name*) [inline, protected]

7.118.3 Member Function Documentation

7.118.3.1 void OsclDNSRequestAO::Abort () [inline, protected]

References OsclActiveObject::Cancel(), and OsclActiveObject::RemoveFromScheduler().

7.118.3.2 virtual void OsclDNSRequestAO::Cancelled () [inline, protected, virtual]

7.118.3.3 void OsclDNSRequestAO::ConstructL (OsclDNSI * *aDNS*, OsclDNSMethod * *aMethod*) [inline, protected]

References iDNSI, iDNSMethod, OsclDNSMethod::iLogger, iLogger, OsclError::Leave(), and OsclErrorGeneral.

7.118.3.4 void OsclDNSRequestAO::DoCancel () [protected, virtual]

Cancel request handler. This gets called by scheduler when the request is cancelled. The default routine will complete the request. If any additional action is needed, the derived class may override this. If the derived class does override DoCancel, it must complete the request.

Reimplemented from [OsclActiveObject](#).

7.118.3.5 virtual void OsclDNSRequestAO::Failure () [inline, protected, virtual]

7.118.3.6 int OsclDNSRequestAO::GetSocketError () [protected]

7.118.3.7 void OsclDNSRequestAO::NewRequest () [protected]

7.118.3.8 void OsclDNSRequestAO::RequestDone () [protected]

7.118.3.9 void OsclDNSRequestAO::Run () [protected, virtual]

Handles an active object's request completion event.

A derived class must provide an implementation to handle the completed request. If appropriate, it may issue another request.

The function is called by the active scheduler when a request completion event occurs, i.e. after the active scheduler's WaitForAnyRequest() function completes.

Before calling this active object's [Run\(\)](#) function, the active scheduler has:

1. decided that this is the highest priority active object with a completed request

2. marked this active object's request as complete (i.e. the request is no longer outstanding)

[Run\(\)](#) runs under a trap harness in the active scheduler. If it leaves, then the active scheduler calls [ExecError\(\)](#) to handle the leave.

Note that once the active scheduler's Start() function has been called, all user code is run under one of the program's active object's [Run\(\)](#) or [RunError\(\)](#) functions.

Implements [PVActiveBase](#).

7.118.3.10 OsclSocketServI* OsclDNSRequestAO::Serv () [protected]

7.118.3.11 virtual void OsclDNSRequestAO::Success () [inline, protected, virtual]

7.118.4 Friends And Related Function Documentation

7.118.4.1 friend class GetHostNameParam [friend]

7.118.4.2 friend class OsclDNSI [friend]

7.118.4.3 friend class OsclDNSMethod [friend]

7.118.4.4 friend class OsclDNSRequest [friend]

7.118.5 Field Documentation

7.118.5.1 OsclDNSI* OsclDNSRequestAO::iDNSI [protected]

Referenced by [ConstructL\(\)](#).

7.118.5.2 OsclDNSMethod* OsclDNSRequestAO::iDNSMethod [protected]

Referenced by [ConstructL\(\)](#).

7.118.5.3 PVLogger* OsclDNSRequestAO::iLogger [protected]

Referenced by [ConstructL\(\)](#).

7.118.5.4 int32 OsclDNSRequestAO::iSocketError [protected]

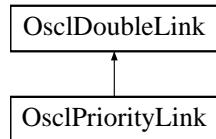
The documentation for this class was generated from the following file:

- [oscl_dns_method.h](#)

7.119 OsclDoubleLink Class Reference

```
#include <oscl_double_list.h>
```

Inheritance diagram for OsclDoubleLink:



Public Member Functions

- [OsclDoubleLink \(\)](#)
- [void Remove \(\)](#)
- [void InsertAfter \(OsclDoubleLink *aLink\)](#)
- [void InsertBefore \(OsclDoubleLink *aLink\)](#)

Data Fields

- [OsclDoubleLink * iNext](#)
- [OsclDoubleLink * iPrev](#)

7.119.1 Constructor & Destructor Documentation

7.119.1.1 [OsclDoubleLink::OsclDoubleLink \(\) \[inline\]](#)

7.119.2 Member Function Documentation

7.119.2.1 [void OsclDoubleLink::InsertAfter \(OsclDoubleLink * aLink\)](#)

7.119.2.2 [void OsclDoubleLink::InsertBefore \(OsclDoubleLink * aLink\)](#)

7.119.2.3 [void OsclDoubleLink::Remove \(\)](#)

7.119.3 Field Documentation

7.119.3.1 [OsclDoubleLink* OsclDoubleLink::iNext](#)

Referenced by [OsclDoubleRunner< T >::operator++\(\)](#), and [OsclDoubleRunner< T >::SetToHead\(\)](#).

7.119.3.2 [OsclDoubleLink* OsclDoubleLink::iPrev](#)

Referenced by [OsclDoubleRunner< T >::SetToTail\(\)](#).

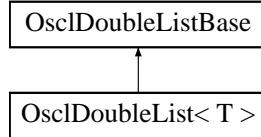
The documentation for this class was generated from the following file:

- [oscl_double_list.h](#)

7.120 OsclDoubleList< T > Class Template Reference

```
#include <oscl_double_list.h>
```

Inheritance diagram for OsclDoubleList< T >:



Public Member Functions

- OSCL_INLINE [OsclDoubleList\(\)](#)
- OSCL_INLINE [OsclDoubleList\(int32 anOffset\)](#)
- OSCL_INLINE void [InsertHead\(T &aRef\)](#)
- OSCL_INLINE void [InsertTail\(T &aRef\)](#)
- OSCL_INLINE bool [IsHead\(const T *aPtr\) const](#)
- OSCL_INLINE bool [IsTail\(const T *aPtr\) const](#)
- OSCL_INLINE T * [Head\(\) const](#)
- OSCL_INLINE T * [Tail\(\) const](#)

```
template<class T> class OsclDoubleList< T >
```

7.120.1 Constructor & Destructor Documentation

7.120.1.1 template<class T > OSCL_INLINE OsclDoubleList< T >::OsclDoubleList ()

**7.120.1.2 template<class T > OSCL_INLINE OsclDoubleList< T >::OsclDoubleList (int32
anOffset)**

7.120.2 Member Function Documentation

7.120.2.1 template<class T > OSCL_INLINE T* OsclDoubleList< T >::Head () const

7.120.2.2 template<class T > OSCL_INLINE void OsclDoubleList< T >::InsertHead (T & aRef)

7.120.2.3 template<class T > OSCL_INLINE void OsclDoubleList< T >::InsertTail (T & aRef)

**7.120.2.4 template<class T > OSCL_INLINE bool OsclDoubleList< T >::IsHead (const T * aPtr)
const**

**7.120.2.5 template<class T > OSCL_INLINE bool OsclDoubleList< T >::IsTail (const T * aPtr)
const**

7.120.2.6 template<class T > OSCL_INLINE T* OsclDoubleList< T >::Tail () const

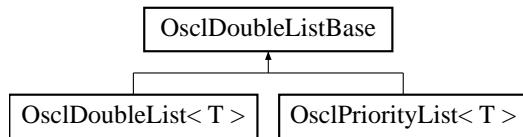
The documentation for this class was generated from the following file:

- [oscl_double_list.h](#)

7.121 OsclDoubleListBase Class Reference

```
#include <oscl_double_list.h>
```

Inheritance diagram for OsclDoubleListBase:



Public Member Functions

- bool [IsEmpty \(\) const](#)
- void [SetOffset \(int32 anOffset\)](#)
- void [Reset \(\)](#)
- [OsclDoubleLink * getHead \(\)](#)
- int32 [getOffset \(\)](#)

Protected Member Functions

- [OsclDoubleListBase \(\)](#)
- [OsclDoubleListBase \(int32 anOffset\)](#)
- void [InsertHead \(OsclAny *aPtr\)](#)
- void [InsertTail \(OsclAny *aPtr\)](#)
- void [Insert \(OsclAny *aPtr\)](#)

Protected Attributes

- [OsclDoubleLink iHead](#)
- int32 [iOffset](#)

7.121.1 Constructor & Destructor Documentation

7.121.1.1 OsclDoubleListBase::OsclDoubleListBase () [protected]

7.121.1.2 OsclDoubleListBase::OsclDoubleListBase (int32 *anOffset*) [protected]

7.121.2 Member Function Documentation

7.121.2.1 OsclDoubleLink* OsclDoubleListBase::getHead () [inline]

References iHead.

Referenced by OsclDoubleRunner< T >::OsclDoubleRunner().

7.121.2.2 int32 OsclDoubleListBase::getOffset () [inline]

References iOffset.

Referenced by OsclDoubleRunner< T >::OsclDoubleRunner().

7.121.2.3 void OsclDoubleListBase::Insert (OsclAny * aPtr) [protected]**7.121.2.4 void OsclDoubleListBase::InsertHead (OsclAny * aPtr) [protected]****7.121.2.5 void OsclDoubleListBase::InsertTail (OsclAny * aPtr) [protected]****7.121.2.6 bool OsclDoubleListBase::IsEmpty () const****7.121.2.7 void OsclDoubleListBase::Reset ()****7.121.2.8 void OsclDoubleListBase::SetOffset (int32 anOffset)**

7.121.3 Field Documentation

7.121.3.1 OsclDoubleLink OsclDoubleListBase::iHead [protected]

Referenced by getHead().

7.121.3.2 int32 OsclDoubleListBase::iOffset [protected]

Referenced by getOffset().

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

- [oscl_double_list.h](#)

7.122 OsclDoubleRunner< T > Class Template Reference

```
#include <oscl_double_list.h>
```

Public Member Functions

- [OsclDoubleRunner \(OsclDoubleListBase &aQue\)](#)
- void [Set \(T &aLink\)](#)
- [operator T * \(\)](#)
- T * [operator++ \(int\)](#)
- T * [operator-- \(int\)](#)
- void [SetToHead \(\)](#)
- void [SetToTail \(\)](#)

Protected Attributes

- int32 [iOffset](#)
- [OsclDoubleLink * iHead](#)
- [OsclDoubleLink * iNext](#)

template<class T> class OsclDoubleRunner< T >

7.122.1 Constructor & Destructor Documentation

7.122.1.1 template<class T> OsclDoubleRunner< T >::OsclDoubleRunner (OsclDoubleListBase & aQue) [inline]

References OsclDoubleListBase::getHead(), OsclDoubleListBase::getOffset(), OsclDoubleRunner< T >::iHead, OsclDoubleRunner< T >::iNext, OsclDoubleRunner< T >::iOffset, and NULL.

7.122.2 Member Function Documentation

7.122.2.1 template<class T> OsclDoubleRunner< T >::operator T * () [inline]

References OsclDoubleRunner< T >::iNext, OsclDoubleRunner< T >::iOffset, NULL, and OsclPtrSub().

7.122.2.2 template<class T> T* OsclDoubleRunner< T >::operator++ (int) [inline]

References OsclDoubleLink::iNext, OsclDoubleRunner< T >::iNext, OsclDoubleRunner< T >::iOffset, NULL, and OsclPtrSub().

7.122.2.3 template<class T> T* OsclDoubleRunner< T >::operator-- (int)

7.122.2.4 template<class T> void OsclDoubleRunner< T >::Set (T & aLink) [inline]

References OsclDoubleRunner< T >::iNext, OsclDoubleRunner< T >::iOffset, and OsclPtrAdd().

7.122.2.5 template<class T> void OsclDoubleRunner< T >::SetToHead () [inline]

References OsclDoubleRunner< T >::iHead, OsclDoubleLink::iNext, and OsclDoubleRunner< T >::iNext.

7.122.2.6 template<class T> void OsclDoubleRunner< T >::SetToTail () [inline]

References OsclDoubleRunner< T >::iHead, OsclDoubleRunner< T >::iNext, and OsclDoubleLink::iPrev.

7.122.3 Field Documentation

7.122.3.1 template<class T> OsclDoubleLink* OsclDoubleRunner< T >::iHead [protected]

Referenced by OsclDoubleRunner< T >::OsclDoubleRunner(), OsclDoubleRunner< T >::SetToHead(), and OsclDoubleRunner< T >::SetToTail().

7.122.3.2 template<class T> OsclDoubleLink* OsclDoubleRunner< T >::iNext [protected]

Referenced by OsclDoubleRunner< T >::operator T *(), OsclDoubleRunner< T >::operator++(), OsclDoubleRunner< T >::OsclDoubleRunner(), OsclDoubleRunner< T >::Set(), OsclDoubleRunner< T >::SetToHead(), and OsclDoubleRunner< T >::SetToTail().

7.122.3.3 template<class T> int32 OsclDoubleRunner< T >::iOffset [protected]

Referenced by OsclDoubleRunner< T >::operator T *(), OsclDoubleRunner< T >::operator++(), OsclDoubleRunner< T >::OsclDoubleRunner(), and OsclDoubleRunner< T >::Set().

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

- [oscl_double_list.h](#)

7.123 OsclError Class Reference

```
#include <oscl_error.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF void PushL (_OsclHeapBase *aPtr)
- static OSCL_IMPORT_REF void PushL (OsclAny *aPtr)
- static OSCL_IMPORT_REF void PushL (OsclTrapItem anItem)
- static OSCL_IMPORT_REF void Pop ()
- static OSCL_IMPORT_REF void Pop (int32 aCount)
- static OSCL_IMPORT_REF void PopDealloc ()
- static OSCL_IMPORT_REF void PopDealloc (int32 aCount)
- static OSCL_IMPORT_REF void Leave (int32 aReason)
- static OSCL_IMPORT_REF void LeaveIfNull (OsclAny *a)
- static OSCL_IMPORT_REF void LeaveIfError (int32 aReason)

7.123.1 Detailed Description

User Error class

7.123.2 Member Function Documentation

7.123.2.1 static OSCL_IMPORT_REF void OsclError::Leave (int32 *aReason*) [static]

Do a Leave error, with the given reason code. When a leave occurs, all items on the cleanup stack for the current trap level will be destroyed, and execution will jump to the trap handler.

Referenced by OsclSocketMethod::ConstructL(), OsclDNSRequestAO::ConstructL(), OsclTLSRegistryEx::getInstance(), OsclSingletonRegistryEx::getInstance(), OsclSingletonRegistryEx::lockAndGetInstance(), OsclBuf::NewL(), OsclTLSRegistryEx::registerInstance(), OsclSingletonRegistryEx::registerInstance(), and OsclSingletonRegistryEx::registerInstanceAndUnlock().

7.123.2.2 static OSCL_IMPORT_REF void OsclError::LeaveIfError (int32 *aReason*) [static]

Evaluate the input parameter, and if it is an error code (non-zero), then do a Leave with the provided reason code.

7.123.2.3 static OSCL_IMPORT_REF void OsclError::LeaveIfNull (OsclAny * *a*) [static]

Evaluate the input parameter, and if it is null, do a Leave with OsclErrNoMemory reason code.

Referenced by OsclMemBasicAllocator::allocate(), and OsclMemAllocator::allocate().

7.123.2.4 static OSCL_IMPORT_REF void OsclError::Pop (int32 *aCount*) [static]

Pop the cleanup stack N times

7.123.2.5 static OSCL_IMPORT_REF void OsclError::Pop () [static]

Pop the cleanup stack

7.123.2.6 static OSCL_IMPORT_REF void OsclError::PopDealloc (int32 aCount) [static]

PopDealloc N times

7.123.2.7 static OSCL_IMPORT_REF void OsclError::PopDealloc () [static]

Destroy the item on the top of the cleanup stack and pop it

7.123.2.8 static OSCL_IMPORT_REF void OsclError::PushL (OsclTrapItem anItem) [static]

Push an [OsclTrapItem](#) onto the cleanup stack

7.123.2.9 static OSCL_IMPORT_REF void OsclError::PushL (OsclAny * aPtr) [static]

Push an OsclAny item onto the cleanup stack.

7.123.2.10 static OSCL_IMPORT_REF void OsclError::PushL (_OsclHeapBase * aPtr) [static]

Cleanup stack operations. Push an [_OsclHeapBase](#) item onto the cleanup stack.

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

- [oscl_error.h](#)

7.124 OsclErrorAllocator Class Reference

This class provides static methods to invoke the user defined memory allocation routines.

```
#include <oscl_error_allocator.h>
```

Public Member Functions

- **OsclErrorAllocator (Oscl_DefAlloc *allocator)**
constructor method
- **void * operator new (uint32 size, OsclAny *aPtr)**
placement new operator that allocates memory using the user defined methods
- **void operator delete (OsclAny *aPtr, OsclAny *aPtr2)**
delete operator that doesn't do anything, user has to deallocate manually

Static Public Member Functions

- static **OsclAny * allocate (uint32 aSize)**
static method to allocate a block of memory on heap
- static **OsclAny deallocate (OsclAny *aPointer)**
static method to deallocate a block of memory on heap

7.124.1 Detailed Description

This class provides static methods to invoke the user defined memory allocation routines. This class must be instantiated before the static methods are called, else asserts will happen

7.124.2 Constructor & Destructor Documentation

7.124.2.1 OsclErrorAllocator::OsclErrorAllocator (Oscl_DefAlloc * allocator) [inline]

constructor method

Parameters

allocator - a pointer to the concrete object that provides the allocator/deallocator

7.124.3 Member Function Documentation

7.124.3.1 static OsclAny* OsclErrorAllocator::allocate (uint32 aSize) [inline, static]

static method to allocate a block of memory on heap

Parameters

aSize - number of bytes to allocate

References NULL, and OSCL_ASSERT.

7.124.3.2 static OsclAny OsclErrorAllocator::deallocate (OsclAny * *aPointer*) [inline, static]

static method to deallocate a block of memory on heap

Parameters

aPointer - pointer to block of memory to be deallocated

References Oscl_DefAlloc::deallocate(), NULL, and OSCL_ASSERT.

7.124.3.3 void OsclErrorAllocator::operator delete (OsclAny * *aPtr*, OsclAny * *aPtr2*) [inline]

delete operator that doesn't do anything, user has to deallocate manually

References OSCL_UNUSED_ARG.

7.124.3.4 void* OsclErrorAllocator::operator new (uint32 *size*, OsclAny * *aPtr*) [inline]

placement new operator that allocates memory using the user defined methods

References OSCL_UNUSED_ARG.

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

- [oscl_error_allocator.h](#)

7.125 OsclErrorTrap Class Reference

```
#include <oscl_error.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF int32 [Init \(Oscl_DefAlloc *aAlloc=NULL\)](#)
- static OSCL_IMPORT_REF int32 [Cleanup \(\)](#)
- static OSCL_IMPORT_REF [OsclErrorTrapImp * GetErrorTrapImp \(\)](#)

7.125.1 Member Function Documentation

7.125.1.1 static OSCL_IMPORT_REF int32 OsclErrorTrap::Cleanup () [static]

Cleanup and destroy error trap for the calling thread.

Returns

0 for success, or an error

7.125.1.2 static OSCL_IMPORT_REF OsclErrorTrapImp* OsclErrorTrap::GetErrorTrapImp () [static]

Get the ErrorTrapImp for the current thread. Leaves on error.

7.125.1.3 static OSCL_IMPORT_REF int32 OsclErrorTrap::Init (Oscl_DefAlloc * *aAlloc* = NULL) [static]

Allocate and initialize error trap for the calling thread.

Parameters

aAlloc,: optional, allocator to use for the internal implementation.

Returns

0 for success, or an error

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

- [oscl_error.h](#)

7.126 OsclErrorTrapImp Class Reference

```
#include <oscl_error_trapcleanup.h>
```

Public Member Functions

- OSCL_IMPORT_REF void [UnTrap \(\)](#)

Static Public Member Functions

- static OSCL_IMPORT_REF [OsclErrorTrapImp * Trap \(\)](#)
- static OSCL_IMPORT_REF [OsclErrorTrapImp * TrapNoTls \(OsclErrorTrapImp *\)](#)

Data Fields

- [OsclJump * iJumpData](#)
- int32 [iLeave](#)
- [OsclTrapStack * iTrapStack](#)

Friends

- class [OsclErrorTrap](#)
- class [OsclError](#)
- class [OsclExecScheduler](#)
- class [OsclExecSchedulerCommonBase](#)
- class [OsclJump](#)
- class [OsclJumpMark](#)
- class [OsclTrapStack](#)
- class [CPVInterfaceProxy](#)
- class [OsclScheduler](#)

7.126.1 Detailed Description

A per-thread cleanup stack with nested trap support.

7.126.2 Member Function Documentation

7.126.2.1 static OSCL_IMPORT_REF OsclErrorTrapImp* OsclErrorTrapImp::Trap () [static]

PV trap cleanup. Public for use in macros only.

7.126.2.2 static OSCL_IMPORT_REF OsclErrorTrapImp* OsclErrorTrapImp::TrapNoTls (OsclErrorTrapImp *) [static]

7.126.2.3 OSCL_IMPORT_REF void OsclErrorTrapImp::UnTrap ()

these are used in public macros, but aren't intended as public methods or members.

7.126.3 Friends And Related Function Documentation

- 7.126.3.1 **friend class CPVInterfaceProxy [friend]**
- 7.126.3.2 **friend class OsclError [friend]**
- 7.126.3.3 **friend class OsclErrorTrap [friend]**
- 7.126.3.4 **friend class OsclExecScheduler [friend]**
- 7.126.3.5 **friend class OsclExecSchedulerCommonBase [friend]**
- 7.126.3.6 **friend class OsclJump [friend]**
- 7.126.3.7 **friend class OsclJumpMark [friend]**
- 7.126.3.8 **friend class OsclScheduler [friend]**
- 7.126.3.9 **friend class OsclTrapStack [friend]**

7.126.4 Field Documentation

- 7.126.4.1 **OsclJump* OsclErrorTrapImp::iJumpData**
- 7.126.4.2 **int32 OsclErrorTrapImp::iLeave**
- 7.126.4.3 **OsclTrapStack* OsclErrorTrapImp::iTrapStack**

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

- [oscl_error_trapcleanup.h](#)

7.127 OsclException< LeaveCode > Class Template Reference

[oscl_exception.h](#) contains all the exception handling macros and classes

```
#include <oscl_exception.h>
```

Public Member Functions

- [OsclException \(\)](#)

Static Public Member Functions

- static int [getLeaveCode \(\)](#)

7.127.1 Detailed Description

template<int LeaveCode> class OsclException< LeaveCode >

[oscl_exception.h](#) contains all the exception handling macros and classes This template class provides the base exception class that all exceptions derive from

All PacketVideo exception classes will be derived from the [OsclException](#) class. Each derived class will have a static function where the leave code can be obtained. This avoids the issue of having static members in a DLL. The function needs to be static so it can be called without an instance of the class

7.127.2 Constructor & Destructor Documentation

7.127.2.1 **template<int LeaveCode> OsclException< LeaveCode >::OsclException () [inline]**

7.127.3 Member Function Documentation

7.127.3.1 **template<int LeaveCode> static int OsclException< LeaveCode >::getLeaveCode () [inline, static]**

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

- [oscl_exception.h](#)

7.128 OsclExclusiveArrayPtr< T > Class Template Reference

The [OsclExclusiveArrayPtr](#) class is a template class that defines an array pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the [OsclExclusiveArrayPtr](#) expires, its destructor uses delete to free the memory.

```
#include <oscl_exclusive_ptr.h>
```

Public Member Functions

- [OsclExclusiveArrayPtr \(T *inPtr=0\)](#)
Default constructor Initializes the pointer and takes ownership.
- [OsclExclusiveArrayPtr \(OsclExclusiveArrayPtr< T > &_Y\)](#)
Copy constructor.
- [OsclExclusiveArrayPtr< T > & operator= \(OsclExclusiveArrayPtr< T > &_Y\)](#)
Assignment operator from an another [OsclExclusiveArrayPtr](#).
- virtual [~OsclExclusiveArrayPtr \(\)](#)
Destructor.
- [T & operator* \(\) const](#)
The indirection operator () accesses a value indirectly, through a pointer.*
- [T * operator-> \(\) const](#)
The indirection operator (->) accesses a value indirectly, through a pointer.
- [T * get \(\) const](#)
get() method returns the pointer, currently owned by the class.
- [T * release \(\)](#)
release() method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.
- [bool set \(T *ptr\)](#)
set() method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

Protected Attributes

- [T * _Ptr](#)

7.128.1 Detailed Description

template<class T> class OsclExclusiveArrayPtr< T >

The [OsclExclusiveArrayPtr](#) class is a template class that defines an array pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the [OsclExclusiveArrayPtr](#) expires,

its destructor uses delete to free the memory. The purpose of this class is to provide a way to prevent accidental memory leaks in a class or a method, due to "not remembering to delete" variables allocated on the heap. Thus if you assign an address returned by new to an `OsclExclusivePtr` object, you don't have to remember to free the memory later, it will be freed automatically when the object goes out of scope. The `OsclExclusivePtr` is an example of a smart pointer, an object that acts like a pointer, but with additional features. The class is defined so that it acts like a regular pointer in most respects

7.128.2 Constructor & Destructor Documentation

7.128.2.1 template<class T> OsclExclusiveArrayPtr< T >::OsclExclusiveArrayPtr (T * *inPtr* = 0) [inline, explicit]

Default constructor Initializes the pointer and takes ownership.

7.128.2.2 template<class T> OsclExclusiveArrayPtr< T >::OsclExclusiveArrayPtr (OsclExclusiveArrayPtr< T > & *_Y*) [inline]

Copy constructor.

Initializes the pointer and takes ownership from another `OsclExclusiveArrayPtr`. Note that the other class does NOT own the pointer any longer, and hence it is NOT its responsibility to free it.

7.128.2.3 template<class T> virtual OsclExclusiveArrayPtr< T >::~OsclExclusiveArrayPtr () [inline, virtual]

Destructor.

The pointer is deleted in case this class still has ownership

References `OsclExclusiveArrayPtr< T >::_Ptr`.

7.128.3 Member Function Documentation

7.128.3.1 template<class T> T* OsclExclusiveArrayPtr< T >::get () const [inline]

`get()` method returns the pointer, currently owned by the class.

References `OsclExclusiveArrayPtr< T >::_Ptr`.

Referenced by `OsclExclusiveArrayPtr< T >::operator=()`.

7.128.3.2 template<class T> T& OsclExclusiveArrayPtr< T >::operator* () const [inline]

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the `OsclExclusiveArrayPtr` can be used like the regular pointer that it was initialized with.

7.128.3.3 template<class T> T* OsclExclusiveArrayPtr< T >::operator-> () const [inline]

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclExclusiveArrayPtr](#) can be used like the regular pointer that it was initialized with.

7.128.3.4 template<class T> OsclExclusiveArrayPtr<T>& OsclExclusiveArrayPtr< T >::operator= (OsclExclusiveArrayPtr< T > & _Y) [inline]

Assignment operator from another [OsclExclusiveArrayPtr](#).

Parameters

_Y The value parameter should be another [OsclExclusiveArrayPtr](#)

Returns

Returns a reference to this [OsclExclusiveArrayPtr](#) instance with pointer initialized.

Precondition

The input class should be non-null and should point to a valid pointer.

This assignment operator initializes the class to the contents of the [OsclExclusiveArrayPtr](#) given as the input parameter. The ownership of the pointer is transferred.

References [OsclExclusiveArrayPtr< T >::_Ptr](#), [OsclExclusiveArrayPtr< T >::get\(\)](#), and [OsclExclusiveArrayPtr< T >::release\(\)](#).

7.128.3.5 template<class T> T* OsclExclusiveArrayPtr< T >::release () [inline]

[release\(\)](#) method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.

References [OsclExclusiveArrayPtr< T >::_Ptr](#), and [NULL](#).

Referenced by [OsclExclusiveArrayPtr< T >::operator=\(\)](#).

7.128.3.6 template<class T> bool OsclExclusiveArrayPtr< T >::set (T * ptr) [inline]

[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

References [OsclExclusiveArrayPtr< T >::_Ptr](#), and [NULL](#).

7.128.4 Field Documentation

7.128.4.1 template<class T> T* OsclExclusiveArrayPtr< T >::_Ptr [protected]

Referenced by [OsclExclusiveArrayPtr< T >::get\(\)](#), [OsclExclusiveArrayPtr< T >::operator=\(\)](#), [OsclExclusiveArrayPtr< T >::release\(\)](#), [OsclExclusiveArrayPtr< T >::set\(\)](#), and [OsclExclusiveArrayPtr< T >::~OsclExclusiveArrayPtr\(\)](#).

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

- [oscl_exclusive_ptr.h](#)

7.129 OsclExclusivePtr< T > Class Template Reference

The [OsclExclusivePtr](#) class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or indirectly) by new. When the [OsclExclusivePtr](#) expires, its destructor uses delete to free the memory.

```
#include <oscl_exclusive_ptr.h>
```

Public Member Functions

- [OsclExclusivePtr \(T *inPtr=0\)](#)
Default constructor Initializes the pointer and takes ownership.
- [OsclExclusivePtr \(OsclExclusivePtr< T > &_Y\)](#)
Copy constructor.
- [OsclExclusivePtr< T > & operator= \(OsclExclusivePtr< T > &_Y\)](#)
Assignment operator from an another [OsclExclusivePtr](#).
- virtual [~OsclExclusivePtr \(\)](#)
Destructor.
- [T & operator* \(\) const](#)
The indirection operator () accesses a value indirectly, through a pointer.*
- [T * operator-> \(\) const](#)
The indirection operator (->) accesses a value indirectly, through a pointer.
- [T * get \(\) const](#)
[get\(\)](#) method returns the pointer, currently owned by the class.
- [T * release \(\)](#)
[release\(\)](#) method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.
- [bool set \(T *ptr\)](#)
[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

Protected Attributes

- [T * _Ptr](#)

7.129.1 Detailed Description

template<class T> class OsclExclusivePtr< T >

The [OsclExclusivePtr](#) class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or indirectly) by new. When the [OsclExclusivePtr](#) expires, its destructor

uses delete to free the memory. The purpose of this class is to provide a way to prevent accidental memory leaks in a class or a method, due to "not remembering to delete" variables allocated on the heap. Thus if you assign an address returned by new to an [OsclExclusivePtr](#) object, you don't have to remember to free the memory later, it will be freed automatically when the object goes out of scope. The [OsclExclusivePtr](#) is an example of a smart pointer, an object that acts like a pointer, but with additional features. The class is defined so that it acts like a regular pointer in most respects

7.129.2 Constructor & Destructor Documentation

7.129.2.1 template<class T> OsclExclusivePtr< T >::OsclExclusivePtr (T * *inPtr* = 0) [inline, explicit]

Default constructor Initializes the pointer and takes ownership.

7.129.2.2 template<class T> OsclExclusivePtr< T >::OsclExclusivePtr (OsclExclusivePtr< T > & *_Y*) [inline]

Copy constructor.

Initializes the pointer and takes ownership from another [OsclExclusivePtr](#). Note that the other class does NOT own the pointer any longer, and hence it is NOT its responsibility to free it.

7.129.2.3 template<class T> virtual OsclExclusivePtr< T >::~OsclExclusivePtr () [inline, virtual]

Destructor.

The pointer is deleted in case this class still has ownership

References [OsclExclusivePtr< T >::_Ptr](#).

7.129.3 Member Function Documentation

7.129.3.1 template<class T> T* OsclExclusivePtr< T >::get () const [inline]

[get\(\)](#) method returns the pointer, currently owned by the class.

References [OsclExclusivePtr< T >::_Ptr](#).

Referenced by [OsclExclusivePtr< T >::operator=\(\)](#).

7.129.3.2 template<class T> T& OsclExclusivePtr< T >::operator* () const [inline]

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclExclusivePtr](#) can be used like the regular pointer that it was initialized with.

7.129.3.3 template<class T> T* OsclExclusivePtr< T >::operator-> () const [inline]

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the `OsclExclusivePtr` can be used like the regular pointer that it was initialized with.

7.129.3.4 template<class T> OsclExclusivePtr<T>& OsclExclusivePtr< T >::operator= (OsclExclusivePtr< T > & _Y) [inline]

Assignment operator from another `OsclExclusivePtr`.

Parameters

`_Y` The value parameter should be another `OsclExclusivePtr`

Returns

Returns a reference to this `OsclExclusivePtr` instance with pointer initialized.

Precondition

The input class should be non-null and should point to a valid pointer.

This assignment operator initializes the class to the contents of the `OsclExclusivePtr` given as the input parameter. The ownership of the pointer is transferred.

References `OsclExclusivePtr< T >::_Ptr`, `OsclExclusivePtr< T >::get()`, and `OsclExclusivePtr< T >::release()`.

7.129.3.5 template<class T> T* OsclExclusivePtr< T >::release () [inline]

`release()` method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.

References `OsclExclusivePtr< T >::_Ptr`, and `NULL`.

Referenced by `OsclExclusivePtr< T >::operator=()`.

7.129.3.6 template<class T> bool OsclExclusivePtr< T >::set (T *ptr) [inline]

`set()` method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

References `OsclExclusivePtr< T >::_Ptr`, and `NULL`.

7.129.4 Field Documentation

7.129.4.1 template<class T> T* OsclExclusivePtr< T >::_Ptr [protected]

Referenced by `OsclExclusivePtr< T >::get()`, `OsclExclusivePtr< T >::operator=()`, `OsclExclusivePtr< T >::release()`, `OsclExclusivePtr< T >::set()`, and `OsclExclusivePtr< T >::~OsclExclusivePtr()`.

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

- `oscl_exclusive_ptr.h`

7.130 OsclExclusivePtrA< T, Alloc > Class Template Reference

The [OsclExclusivePtrA](#) class is a template class that defines any pointer like object intended to be assigned an address obtained (directly or indirectly) through Alloc. When the [OsclExclusivePtrA](#) expires, Alloc is used to free the memory.

```
#include <oscl_exclusive_ptr.h>
```

Public Member Functions

- [OsclExclusivePtrA](#) (T *inPtr=0)
Default constructor Initializes the pointer and takes ownership.
- [OsclExclusivePtrA](#) ([OsclExclusivePtrA](#)< T, Alloc > &_Y)
Copy constructor.
- [OsclExclusivePtrA](#)< T, Alloc > & [operator=](#) ([OsclExclusivePtrA](#)< T, Alloc > &_Y)
Assignment operator from an another [OsclExclusiveArrayPtr](#).
- virtual [~OsclExclusivePtrA](#) ()
Destructor.
- T & [operator*](#) () const
The indirection operator () accesses a value indirectly, through a pointer.*
- T * [operator->](#) () const
The indirection operator (->) accesses a value indirectly, through a pointer.
- T * [get](#) () const
[get\(\)](#) method returns the pointer, currently owned by the class.
- T * [release](#) ()
[release\(\)](#) method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.
- bool [set](#) (T *ptr)
[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

Protected Attributes

- T * [_Ptr](#)

7.130.1 Detailed Description

template<class T, class Alloc> class OsclExclusivePtrA< T, Alloc >

The [OsclExclusivePtrA](#) class is a template class that defines any pointer like object intended to be assigned an address obtained (directly or indirectly) through Alloc. When the [OsclExclusivePtrA](#) expires, Alloc

is used to free the memory. The purpose of this class is to provide a way to prevent accidental memory leaks in a class or a method, due to "not remembering to delete" variables allocated on the heap. Thus if you assign an address returned by new to an [OsclExclusivePtr](#) object, you don't have to remember to free the memory later, it will be freed automatically when the object goes out of scope. The [OsclExclusivePtr](#) is an example of a smart pointer, an object that acts like a pointer, but with additional features. The class is defined so that it acts like a regular pointer in most respects

7.130.2 Constructor & Destructor Documentation

**7.130.2.1 template<class T, class Alloc> OsclExclusivePtrA< T, Alloc >::OsclExclusivePtrA (T *
inPtr = 0) [inline, explicit]**

Default constructor Initializes the pointer and takes ownership.

**7.130.2.2 template<class T, class Alloc> OsclExclusivePtrA< T, Alloc >::OsclExclusivePtrA
(OsclExclusivePtrA< T, Alloc > & _Y) [inline]**

Copy constructor.

Initializes the pointer and takes ownership from another [OsclExclusiveArrayPtr](#). Note that the other class does NOT own the pointer any longer, and hence it is NOT its responsibility to free it.

**7.130.2.3 template<class T, class Alloc> virtual OsclExclusivePtrA< T, Alloc
>::~OsclExclusivePtrA () [inline, virtual]**

Destructor.

The pointer is deleted in case this class still has ownership

References [OsclExclusivePtrA< T, Alloc >::_Ptr](#).

7.130.3 Member Function Documentation

**7.130.3.1 template<class T, class Alloc> T* OsclExclusivePtrA< T, Alloc >::get () const
[inline]**

[get\(\)](#) method returns the pointer, currently owned by the class.

References [OsclExclusivePtrA< T, Alloc >::_Ptr](#).

Referenced by [OsclExclusivePtrA< T, Alloc >::operator=\(\)](#).

**7.130.3.2 template<class T, class Alloc> T& OsclExclusivePtrA< T, Alloc >::operator* () const
[inline]**

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclExclusiveArrayPtr](#) can be used like the regular pointer that it was initialized with.

7.130.3.3 template<class T, class Alloc> T* OsclExclusivePtrA< T, Alloc >::operator-> () const [inline]

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclExclusiveArrayPtr](#) can be used like the regular pointer that it was initialized with.

7.130.3.4 template<class T, class Alloc> OsclExclusivePtrA<T, Alloc>& OsclExclusivePtrA< T, Alloc >::operator= (OsclExclusivePtrA< T, Alloc > & _Y) [inline]

Assignment operator from another [OsclExclusiveArrayPtr](#).

Parameters

_Y The value parameter should be another [OsclExclusiveArrayPtr](#)

Returns

Returns a reference to this [OsclExclusiveArrayPtr](#) instance with pointer initialized.

Precondition

The input class should be non-null and should point to a valid pointer.

This assignment operator initializes the class to the contents of the [OsclExclusiveArrayPtr](#) given as the input parameter. The ownership of the pointer is transferred.

References [OsclExclusivePtrA< T, Alloc >::_Ptr](#), [OsclExclusivePtrA< T, Alloc >::get\(\)](#), and [OsclExclusivePtrA< T, Alloc >::release\(\)](#).

7.130.3.5 template<class T, class Alloc> T* OsclExclusivePtrA< T, Alloc >::release () [inline]

[release\(\)](#) method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.

References [OsclExclusivePtrA< T, Alloc >::_Ptr](#), and [NULL](#).

Referenced by [OsclExclusivePtrA< T, Alloc >::operator=\(\)](#).

7.130.3.6 template<class T, class Alloc> bool OsclExclusivePtrA< T, Alloc >::set (T * ptr) [inline]

[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

References [OsclExclusivePtrA< T, Alloc >::_Ptr](#), and [NULL](#).

7.130.4 Field Documentation

7.130.4.1 template<class T, class Alloc> T* OsclExclusivePtrA< T, Alloc >::_Ptr [protected]

Referenced by [OsclExclusivePtrA< T, Alloc >::get\(\)](#), [OsclExclusivePtrA< T, Alloc >::operator=\(\)](#), [OsclExclusivePtrA< T, Alloc >::release\(\)](#), [OsclExclusivePtrA< T, Alloc >::set\(\)](#), and

`OsclExclusivePtrA< T, Alloc >::~OsclExclusivePtrA()`.

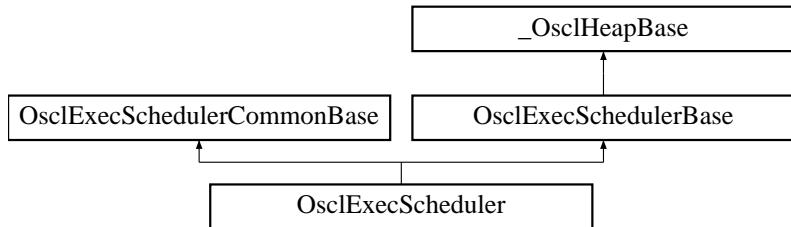
The documentation for this class was generated from the following file:

- [oscl_exclusive_ptr.h](#)

7.131 OsclExecScheduler Class Reference

```
#include <oscl_scheduler.h>
```

Inheritance diagram for OsclExecScheduler:



Public Member Functions

- OSCL_IMPORT_REF void [RunSchedulerNonBlocking](#) (int32 aTargetCount, int32 &aReady, uint32 &aDelayMsec)
- OSCL_IMPORT_REF void [RegisterForCallback](#) (OsclSchedulerObserver *aCallback, [OsclAny](#) *aCallbackContext)

Static Public Member Functions

- static OSCL_IMPORT_REF [OsclExecScheduler](#) * [Current](#) ()

Friends

- class [OsclScheduler](#)

7.131.1 Member Function Documentation

7.131.1.1 static OSCL_IMPORT_REF OsclExecScheduler* OsclExecScheduler::Current () [static]

Get currently installed scheduler for calling thread, or NULL if no scheduler is installed.

7.131.1.2 OSCL_IMPORT_REF void OsclExecScheduler::RegisterForCallback (OsclSchedulerObserver * aCallback, OsclAny * aCallbackContext)

Register for a notification when non-blocking scheduler needs to run again.

Note: On Symbian, non-blocking mode is not supported and this call will leave.

7.131.1.3 OSCL_IMPORT_REF void OsclExecScheduler::RunSchedulerNonBlocking (int32 aTargetCount, int32 & aReady, uint32 & aDelayMsec)

Non-Blocking scheduler APIs. Run PV scheduler in non-blocking mode. This call returns when the desired number of Run calls have been made, or when there are no more active objects that are ready to run.

Parameters

aTargetCount,: (input param) the maximum number of Run calls to make.

aReady,: (output param) tells the number of active objects that are currently ready to run.

aDelayMsec,: (output param) If no active objects are ready to run, but one or more active objects are waiting on timers, this parameter will tell the time interval from the current time until the first of the pending timer objects will be ready to run, in milliseconds.

Note: On Symbian, non-blocking mode is not supported and this call will leave.

7.131.2 Friends And Related Function Documentation

7.131.2.1 friend class OsclScheduler [friend]

Reimplemented from [OsclExecSchedulerCommonBase](#).

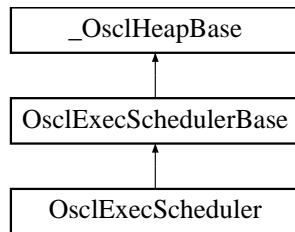
The documentation for this class was generated from the following file:

- [oscl_scheduler.h](#)

7.132 OsclExecSchedulerBase Class Reference

```
#include <oscl_scheduler_types.h>
```

Inheritance diagram for OsclExecSchedulerBase:



Friends

- class [OsclExecScheduler](#)
- class [OsclCoeActiveScheduler](#)
- class [PVActiveBase](#)

7.132.1 Detailed Description

This file defines the OsclExecBase, OsclTimerBase, and [OsclExecSchedulerBase](#) classes. These are the base classes for PV AOs and PV Scheduler. We want the PV exec objects to be usable with either a PV scheduler or a non-PV native Symbian scheduler. We also want the PV scheduler to be usable with non-PV exec objects. Therefore, the PV scheduler and AO classes derived from Symbian classes on Symbian platforms. On non-Symbian platforms, the PV classes derive from classes with a similar API to the Symbian classes. OsclActiveSchedulerBase is the base for [OsclExecScheduler](#). The non-Symbian OsclActiveSchedulerBase class is functionally similar to a subset of Symbian CActiveScheduler class.

7.132.2 Friends And Related Function Documentation

7.132.2.1 friend class OsclCoeActiveScheduler [friend]

7.132.2.2 friend class OsclExecScheduler [friend]

7.132.2.3 friend class PVActiveBase [friend]

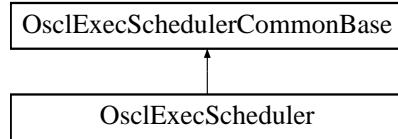
The documentation for this class was generated from the following file:

- [oscl_scheduler_types.h](#)

7.133 OsclExecSchedulerCommonBase Class Reference

```
#include <oscl_scheduler.h>
```

Inheritance diagram for OsclExecSchedulerCommonBase:



Public Member Functions

- OSCL_IMPORT_REF void [StartScheduler](#) (OsclSemaphore *sem=NULL)
- OSCL_IMPORT_REF void [StopScheduler](#) ()
- OSCL_IMPORT_REF void [SuspendScheduler](#) ()
- OSCL_IMPORT_REF void [ResumeScheduler](#) ()
- OSCL_IMPORT_REF void [StartNativeScheduler](#) ()

Static Public Member Functions

- static OSCL_IMPORT_REF [OsclNameString< PVSCHEDNAMELEN > *](#) [GetName](#) ()
- static OSCL_IMPORT_REF uint32 [GetId](#) ()

Protected Member Functions

- virtual ~[OsclExecSchedulerCommonBase](#) ()
- void [InstallScheduler](#) ()
- void [UninstallScheduler](#) ()
- void [Error](#) (int32 anError) const
- [OsclExecSchedulerCommonBase](#) ([Oscl_DefAlloc](#) *)
- virtual void [ConstructL](#) (const char *name, int)
- void [BeginScheduling](#) (bool blocking, bool native)
- void [EndScheduling](#) ()
- void [BlockingLoopL](#) ()
- bool [IsStarted](#) ()
- bool [IsInstalled](#) ()
- void [AddToExecTimerQ](#) ([PVActiveBase](#) *active, uint32)
- void [PendComplete](#) ([PVActiveBase](#) *, int32 aReason, [TPVThreadContext](#) aContext)
- void [RequestCanceled](#) ([PVActiveBase](#) *)
- [PVActiveBase](#) * [UpdateTimers](#) (uint32 &aDelay)
- [PVActiveBase](#) * [UpdateTimersMsec](#) (uint32 &aDelay)
- [PVActiveBase](#) * [WaitForReadyAO](#) ()
- void [CallRunExec](#) ([PVActiveBase](#) *)
- [PVActiveBase](#) * [FindPVB](#) ([PVActiveBase](#) *active, [OsclDoubleList< PVActiveBase >](#) &)
- void [CleanupExecQ](#) ()
- void [InitExecQ](#) (int)
- void [ResetLogPerf](#) ()
- void [IncLogPerf](#) (uint32)

Static Protected Member Functions

- static [OsclExecSchedulerCommonBase * GetScheduler \(\)](#)
- static [OsclExecSchedulerCommonBase * SetScheduler \(OsclExecSchedulerCommonBase *\)](#)

Protected Attributes

- bool [iBlockingMode](#)
- bool [iNativeMode](#)
- [PVSchedulerStopper * iStopper](#)
- [OsclNoYieldMutex iStopperCrit](#)
- [PVThreadContext iThreadContext](#)
- [OsclNameString< PVSCHEDNAMELEN > iName](#)
- bool [iDoStop](#)
- bool [iDoSuspend](#)
- bool [iSuspended](#)
- [OsclSemaphore iResumeSem](#)
- [OsclErrorTrapImp * iErrorTrapImp](#)
- [OsclReadyQ iReadyQ](#)
- [OsclTimerQ iExecTimerQ](#)
- uint32 [iNumAOAdded](#)
- [PVLogger * iLogger](#)
- [PVLogger * iDebugLogger](#)
- char * [iLogPerfIndentStr](#)
- int32 [iLogPerfIndentStrLen](#)
- uint32 [iLogPerfTotal](#)
- [Oscl_DefAlloc * iAlloc](#)
- [OsclMemAllocator iDefAlloc](#)

Static Protected Attributes

- static const uint32 [iTTimeCompareThreshold](#)

Friends

- class [OsclScheduler](#)
- class [PVThreadContext](#)
- class [OsclCoeActiveScheduler](#)
- class [OsclTimerCompare](#)
- class [OsclReadyQ](#)
- class [OsclError](#)
- class [OsclActiveObject](#)
- class [OsclTimerObject](#)
- class [PVActiveBase](#)
- class [PVSchedulerStopper](#)
- class [OsclExecScheduler](#)

7.133.1 Constructor & Destructor Documentation

- 7.133.1.1 `virtual OsclExecSchedulerCommonBase::~OsclExecSchedulerCommonBase ()`
`[protected, virtual]`
- 7.133.1.2 `OsclExecSchedulerCommonBase::OsclExecSchedulerCommonBase (Oscl_DefAlloc *)`
`[protected]`

7.133.2 Member Function Documentation

- 7.133.2.1 `void OsclExecSchedulerCommonBase::AddToExecTimerQ (PVActiveBase * active, uint32) [protected]`
- 7.133.2.2 `void OsclExecSchedulerCommonBase::BeginScheduling (bool blocking, bool native) [protected]`
- 7.133.2.3 `void OsclExecSchedulerCommonBase::BlockingLoopL () [protected]`
- 7.133.2.4 `void OsclExecSchedulerCommonBase::CallRunExec (PVActiveBase *) [protected]`
- 7.133.2.5 `void OsclExecSchedulerCommonBase::CleanupExecQ () [protected]`
- 7.133.2.6 `virtual void OsclExecSchedulerCommonBase::ConstructL (const char * name, int) [protected, virtual]`
- 7.133.2.7 `void OsclExecSchedulerCommonBase::EndScheduling () [protected]`
- 7.133.2.8 `void OsclExecSchedulerCommonBase::Error (int32 anError) const [protected]`
- 7.133.2.9 `PVActiveBase* OsclExecSchedulerCommonBase::FindPVBase (PVActiveBase * active, OsclDoubleList< PVActiveBase > &) [protected]`
- 7.133.2.10 `static OSCL_IMPORT_REF uint32 OsclExecSchedulerCommonBase::GetId () [static]`

Get numeric ID of current thread.

- 7.133.2.11 `static OSCL_IMPORT_REF OsclNameString< PVSCHEDNAMELEN >* OsclExecSchedulerCommonBase::GetName () [static]`

Get name of scheduler for current thread.

- 7.133.2.12 **static OsclExecSchedulerCommonBase* OsclExecSchedulerCommonBase::GetScheduler () [static, protected]**
- 7.133.2.13 **void OsclExecSchedulerCommonBase::IncLogPerf (uint32) [protected]**
- 7.133.2.14 **void OsclExecSchedulerCommonBase::InitExecQ (int) [protected]**
- 7.133.2.15 **void OsclExecSchedulerCommonBase::InstallScheduler () [protected]**
- 7.133.2.16 **bool OsclExecSchedulerCommonBase::IsInstalled () [inline, protected]**
- 7.133.2.17 **bool OsclExecSchedulerCommonBase::IsStarted () [protected]**
- 7.133.2.18 **void OsclExecSchedulerCommonBase::PendComplete (PVActiveBase *, int32 *aReason*, TPVThreadContext *aContext*) [protected]**
- 7.133.2.19 **void OsclExecSchedulerCommonBase::RequestCanceled (PVActiveBase *) [protected]**
- 7.133.2.20 **void OsclExecSchedulerCommonBase::ResetLogPerf () [protected]**
- 7.133.2.21 **OSCL_IMPORT_REF void OsclExecSchedulerCommonBase::ResumeScheduler ()**

Resume scheduling immediately. This API only applies to a blocking loop scheduler.

- 7.133.2.22 **static OsclExecSchedulerCommonBase* OsclExecSchedulerCommonBase::SetScheduler (OsclExecSchedulerCommonBase *) [static, protected]**
 - 7.133.2.23 **OSCL_IMPORT_REF void OsclExecSchedulerCommonBase::StartNativeScheduler ()**
- Start the OS native scheduling loop. This is an alternative to the PV scheduling loop. To stop the native scheduler, use the StopScheduler API.
- 7.133.2.24 **OSCL_IMPORT_REF void OsclExecSchedulerCommonBase::StartScheduler (OsclSemaphore * *sem* = NULL)**

Start scheduling. This call blocks until scheduler is stopped or an error occurs.

Parameters

sem: optional startup semaphore. If provided, the scheduler will signal this semaphore when the startup has progressed to the point that it's safe to call StopScheduler or SuspendScheduler from another thread.

- 7.133.2.25 **OSCL_IMPORT_REF void OsclExecSchedulerCommonBase::StopScheduler ()**

Stop scheduling. This API may be called from the scheduling thread or some other thread.

7.133.2.26 OSCL_IMPORT_REF void OsclExecSchedulerCommonBase::SuspendScheduler ()

Suspend scheduling when the current Run is complete. This API only applies to a blocking loop scheduler.

7.133.2.27 void OsclExecSchedulerCommonBase::UninstallScheduler () [protected]**7.133.2.28 PVActiveBase* OsclExecSchedulerCommonBase::UpdateTimers (uint32 & aDelay) [protected]****7.133.2.29 PVActiveBase* OsclExecSchedulerCommonBase::UpdateTimersMsec (uint32 & aDelay) [protected]****7.133.2.30 PVActiveBase* OsclExecSchedulerCommonBase::WaitForReadyAO () [protected]****7.133.3 Friends And Related Function Documentation****7.133.3.1 friend class OsclActiveObject [friend]****7.133.3.2 friend class OsclCoeActiveScheduler [friend]****7.133.3.3 friend class OsclError [friend]****7.133.3.4 friend class OsclExecScheduler [friend]****7.133.3.5 friend class OsclReadyQ [friend]****7.133.3.6 friend class OsclScheduler [friend]**

Reimplemented in [OsclExecScheduler](#).

- 7.133.3.7 friend class OsclTimerCompare [friend]
- 7.133.3.8 friend class OsclTimerObject [friend]
- 7.133.3.9 friend class PVActiveBase [friend]
- 7.133.3.10 friend class PVSchedulerStopper [friend]
- 7.133.3.11 friend class PVThreadContext [friend]

7.133.4 Field Documentation

- 7.133.4.1 Oscl_DefAlloc* OsclExecSchedulerCommonBase::iAlloc [protected]
- 7.133.4.2 bool OsclExecSchedulerCommonBase::iBlockingMode [protected]
- 7.133.4.3 PVLogger* OsclExecSchedulerCommonBase::iDebugLogger [protected]
- 7.133.4.4 OsclMemAllocator OsclExecSchedulerCommonBase::iDefAlloc [protected]
- 7.133.4.5 bool OsclExecSchedulerCommonBase::iDoStop [protected]
- 7.133.4.6 bool OsclExecSchedulerCommonBase::iDoSuspend [protected]
- 7.133.4.7 OsclErrorTrapImp* OsclExecSchedulerCommonBase::iErrorTrapImp [protected]
- 7.133.4.8 OsclTimerQ OsclExecSchedulerCommonBase::iExecTimerQ [protected]
- 7.133.4.9 PVLogger* OsclExecSchedulerCommonBase::iLogger [protected]
- 7.133.4.10 char* OsclExecSchedulerCommonBase::iLogPerfIndentStr [protected]
- 7.133.4.11 int32 OsclExecSchedulerCommonBase::iLogPerfIndentStrLen [protected]
- 7.133.4.12 uint32 OsclExecSchedulerCommonBase::iLogPerfTotal [protected]
- 7.133.4.13 OsclNameString<PVSCEDNAMELEN> OsclExecSchedulerCommonBase::iName [protected]
- 7.133.4.14 bool OsclExecSchedulerCommonBase::iNativeMode [protected]
- 7.133.4.15 uint32 OsclExecSchedulerCommonBase::iNumAOAdded [protected]
- 7.133.4.16 OsclReadyQ OsclExecSchedulerCommonBase::iReadyQ [protected]
- 7.133.4.17 OsclSemaphore OsclExecSchedulerCommonBase::iResumeSem [protected]
- 7.133.4.18 PVSchedulerStopper* OsclExecSchedulerCommonBase::iStopper [protected]
- 7.133.4.19 OsclNoYieldMutex OsclExecSchedulerCommonBase::iStopperCrit [protected]
- 7.133.4.20 bool OsclExecSchedulerCommonBase::iSuspended [protected]
- 7.133.4.21 PVThreadContext OsclExecSchedulerCommonBase::iThreadContext [protected]
- 7.133.4.22 const uint32 OsclExecSchedulerCommonBase::iTimeCompareThreshold [static, protected]

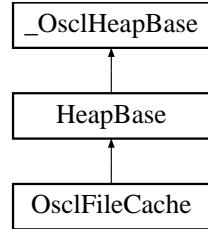
The documentation for this class was generated from the following file:

- [oscl_scheduler.h](#)

7.134 OsclFileCache Class Reference

```
#include <oscl_file_cache.h>
```

Inheritance diagram for OsclFileCache:



Public Member Functions

- [OsclFileCache \(Oscl_File &aContainer\)](#)
- [~OsclFileCache \(\)](#)
- int32 [Open \(uint32 mode, uint32 cache_size\)](#)
- void [Close \(\)](#)
- uint32 [Read \(void *outputBuffer, uint32 size, uint32 numelements\)](#)
- uint32 [Write \(const void *inputBuffer, uint32 size, uint32 numelements\)](#)
- [TOsclFileOffset FileSize \(\)](#)
- int32 [Seek \(TOsclFileOffset offset, Oscl_File::seek_type origin\)](#)
- [TOsclFileOffset Tell \(\)](#)
- int32 [Flush \(\)](#)
- int32 [EndOfFile \(\)](#)
- OSCL_IMPORT_REF [OsclFileCacheBuffer * AddFixedCache \(const Oscl_File::OsclFixedCacheParam &\)](#)

Data Fields

- [OsclFileCacheBuffer _movableCache](#)
- [Oscl_Vector< OsclFileCacheBuffer, OsclMemAllocator > _fixedCaches](#)

Friends

- class [OsclFileCacheBuffer](#)

7.134.1 Constructor & Destructor Documentation

7.134.1.1 OsclFileCache::OsclFileCache (Oscl_File & *aContainer*)

7.134.1.2 OsclFileCache::~OsclFileCache ()

7.134.2 Member Function Documentation

7.134.2.1 OSCL_IMPORT_REF OsclFileCacheBuffer* OsclFileCache::AddFixedCache (const Oscl_File::OsclFixedCacheParam &)

7.134.2.2 void OsclFileCache::Close ()

7.134.2.3 int32 OsclFileCache::EndOfFile () [inline]

References FileSize(), and Tell().

7.134.2.4 TOsclFileOffset OsclFileCache::FileSize () [inline]

Referenced by EndOfFile().

7.134.2.5 int32 OsclFileCache::Flush ()

7.134.2.6 int32 OsclFileCache::Open (uint32 *mode*, uint32 *cache_size*)

7.134.2.7 uint32 OsclFileCache::Read (void * *outputBuffer*, uint32 *size*, uint32 *numelements*)

7.134.2.8 int32 OsclFileCache::Seek (TOsclFileOffset *offset*, Oscl_File::seek_type *origin*)

7.134.2.9 TOsclFileOffset OsclFileCache::Tell () [inline]

References OsclFileCacheBuffer::currentPos, and OsclFileCacheBuffer::filePosition.

Referenced by EndOfFile().

7.134.2.10 uint32 OsclFileCache::Write (const void * *inputBuffer*, uint32 *size*, uint32 *numelements*)

7.134.3 Friends And Related Function Documentation

7.134.3.1 friend class OsclFileCacheBuffer [friend]

7.134.4 Field Documentation

7.134.4.1 Oscl_Vector<OsclFileCacheBuffer, OsclMemAllocator> OsclFileCache::_fixedCaches

7.134.4.2 OsclFileCacheBuffer OsclFileCache::_movableCache

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

- [oscl_file_cache.h](#)

7.135 OsclFileCacheBuffer Class Reference

```
#include <oscl_file_cache.h>
```

Public Member Functions

- [OsclFileCacheBuffer \(\)](#)
- [int32 SetPosition \(TOsclFileOffset pos\)](#)
- [int32 PrepRead \(\)](#)
- [int32 PrepWrite \(\)](#)
- [int32 WriteUpdatesToFile \(\)](#)
- [int32 FillFromFile \(uint32, uint32\)](#)
- [bool IsUpdated \(\)](#)
- [bool Contains \(TOsclFileOffset pos\)](#)
- [bool Preceeds \(TOsclFileOffset pos\)](#)

Data Fields

- [OsclFileCache * iContainer](#)
- [bool isFixed](#)
- [uint32 capacity](#)
- [uint32 usableSize](#)
- [uint8 * pBuffer](#)
- [TOsclFileOffset filePosition](#)
- [uint32 currentPos](#)
- [uint32 endPos](#)
- [uint32 updateStart](#)
- [uint32 updateEnd](#)

7.135.1 Constructor & Destructor Documentation

7.135.1.1 [OsclFileCacheBuffer::OsclFileCacheBuffer \(\) \[inline\]](#)

7.135.2 Member Function Documentation

7.135.2.1 [bool OsclFileCacheBuffer::Contains \(TOsclFileOffset pos\) \[inline\]](#)

References filePosition, and usableSize.

7.135.2.2 [int32 OsclFileCacheBuffer::FillFromFile \(uint32, uint32\)](#)

7.135.2.3 [bool OsclFileCacheBuffer::IsUpdated \(\) \[inline\]](#)

References updateEnd, and updateStart.

7.135.2.4 [bool OsclFileCacheBuffer::Preceeds \(TOsclFileOffset pos\) \[inline\]](#)

References filePosition, and usableSize.

7.135.2.5 int32 OsclFileCacheBuffer::PrepRead ()

7.135.2.6 int32 OsclFileCacheBuffer::PrepWrite ()

7.135.2.7 int32 OsclFileCacheBuffer::SetPosition (TOsclFileOffset *pos*)

7.135.2.8 int32 OsclFileCacheBuffer::WriteUpdatesToFile ()

7.135.3 Field Documentation

7.135.3.1 uint32 OsclFileCacheBuffer::capacity

7.135.3.2 uint32 OsclFileCacheBuffer::currentPos

Referenced by OsclFileCache::Tell().

7.135.3.3 uint32 OsclFileCacheBuffer::endPos

7.135.3.4 TOsclFileOffset OsclFileCacheBuffer::filePosition

Referenced by Contains(), Preceeds(), and OsclFileCache::Tell().

7.135.3.5 OsclFileCache* OsclFileCacheBuffer::iContainer

7.135.3.6 bool OsclFileCacheBuffer::isFixed

7.135.3.7 uint8* OsclFileCacheBuffer::pBuffer

7.135.3.8 uint32 OsclFileCacheBuffer::updateEnd

Referenced by IsUpdated().

7.135.3.9 uint32 OsclFileCacheBuffer::updateStart

Referenced by IsUpdated().

7.135.3.10 uint32 OsclFileCacheBuffer::usableSize

Referenced by Contains(), and Preceeds().

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

- [oscl_file_cache.h](#)

7.136 OsclHandle Class Reference

```
#include <oscl_file_handle.h>
```

Public Member Functions

- [OsclHandle \(TOsclHandle aHandle\)](#)
- [OsclHandle \(const OsclHandle &aHandle\)](#)
- [TOsclHandle Handle \(\) const](#)

Friends

- class [Oscl_File](#)

7.136.1 Detailed Description

[OsclHandle](#) is a container for a handle to a previously-opened file.

7.136.2 Constructor & Destructor Documentation

7.136.2.1 [OsclHandle::OsclHandle \(TOsclHandle aHandle\) \[inline\]](#)

7.136.2.2 [OsclHandle::OsclHandle \(const OsclHandle & aHandle\) \[inline\]](#)

7.136.3 Member Function Documentation

7.136.3.1 [TOsclHandle OsclHandle::Handle \(\) const \[inline\]](#)

7.136.4 Friends And Related Function Documentation

7.136.4.1 [friend class Oscl_File \[friend\]](#)

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

- [oscl_file_handle.h](#)

7.137 OsclFileManager Class Reference

```
#include <oscl_file_manager.h>
```

Public Types

- enum `OSCL_FILE_ATTRIBUTE_TYPE` {

`OSCL_FILE_ATTRIBUTE_READONLY` = 0x00000001, `OSCL_FILE_ATTRIBUTE_HIDDEN` = 0x00000002, `OSCL_FILE_ATTRIBUTE_SYSTEM` = 0x00000004, `OSCL_FILE_ATTRIBUTE_DIRECTORY` = 0x00000010,

`OSCL_FILE_ATTRIBUTE_ARCHIVE` = 0x00000020, `OSCL_FILE_ATTRIBUTE_NORMAL` = 0x00000080 }

Static Public Member Functions

- static `OSCL_IMPORT_REF` bool `OsclGetFileSize` (const `oscl_wchar` *aFileName, `uint64` &aFileSize)
- static `OSCL_IMPORT_REF` bool `OsclGetFileSize` (const char *aFileName, `uint64` &aFileSize)
- static `OSCL_IMPORT_REF` bool `OsclGetFileCreationTime` (const `oscl_wchar` *aFileName, `uint64` &aFileCreationTime)
- static `OSCL_IMPORT_REF` bool `OsclGetFileCreationTime` (const char *aFileName, `uint64` &aFileCreationTime)
- static `OSCL_IMPORT_REF` bool `OsclGetFileLastAccessTime` (const `oscl_wchar` *aFileName, `uint64` &aFileLastAccessTime)
- static `OSCL_IMPORT_REF` bool `OsclGetFileLastAccessTime` (const char *aFileName, `uint64` &aFileLastAccessTime)
- static `OSCL_IMPORT_REF` bool `OsclGetFileLastWriteTime` (const `oscl_wchar` *aFileName, `uint64` &aFileLastWriteTime)
- static `OSCL_IMPORT_REF` bool `OsclGetFileLastWriteTime` (const char *aFileName, `uint64` &aFileLastWriteTime)
- static `OSCL_IMPORT_REF` bool `OsclGetFileAttributes` (const `oscl_wchar` *aFileName, `uint32` &aFileAttributes)
- static `OSCL_IMPORT_REF` bool `OsclGetFileAttributes` (const char *aFileName, `uint32` &aFileAttributes)
- static `OSCL_IMPORT_REF` void `OsclExtractFilenameFromFullPath` (const char *aPath, char *&aFileName)
- static `OSCL_IMPORT_REF` void `OsclExtractFilenameFromFullPath` (const `oscl_wchar` *aPath, `oscl_wchar` *&aFileName)

7.137.1 Member Enumeration Documentation

7.137.1.1 enum OsclFileManager::OSCL_FILE_ATTRIBUTE_TYPE

Enumerator:

`OSCL_FILE_ATTRIBUTE_READONLY`
`OSCL_FILE_ATTRIBUTE_HIDDEN`
`OSCL_FILE_ATTRIBUTE_SYSTEM`
`OSCL_FILE_ATTRIBUTE_DIRECTORY`

OSCL_FILE_ATTRIBUTE_ARCHIVE
OSCL_FILE_ATTRIBUTE_NORMAL

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

- [oscl_file_manager.h](#)

7.138 OsclFileStats Class Reference

```
#include <oscl_file_stats.h>
```

Public Member Functions

- [OsclFileStats \(Oscl_File *c\)](#)
- void [Start \(uint32 &aTicks\)](#)
- void [End \(TOsclFileOp aOp, uint32 aStart, uint32 aParam=0, TOsclFileOffset aParam2=0\)](#)
- void [Log \(TOsclFileOp, PVLogger *, uint32\)](#)
- void [LogAll \(PVLogger *, uint32\)](#)

7.138.1 Constructor & Destructor Documentation

7.138.1.1 [OsclFileStats::OsclFileStats \(Oscl_File * c\)](#)

7.138.2 Member Function Documentation

7.138.2.1 [void OsclFileStats::End \(TOsclFileOp aOp, uint32 aStart, uint32 aParam = 0, TOsclFileOffset aParam2 = 0\)](#)

7.138.2.2 [void OsclFileStats::Log \(TOsclFileOp, PVLogger *, uint32\)](#)

7.138.2.3 [void OsclFileStats::LogAll \(PVLogger *, uint32\)](#)

7.138.2.4 [void OsclFileStats::Start \(uint32 & aTicks\)](#)

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

- [oscl_file_stats.h](#)

7.139 OsclFileStatsItem Class Reference

```
#include <oscl_file_stats.h>
```

Data Fields

- uint32 [iOpCount](#)
- uint64 [iParam](#)
- TOsclFileOffset [iParam2](#)
- uint32 [iStartTick](#)
- uint32 [iTTotalTicks](#)

7.139.1 Field Documentation

7.139.1.1 uint32 OsclFileStatsItem::iOpCount

7.139.1.2 uint64 OsclFileStatsItem::iParam

7.139.1.3 TOsclFileOffset OsclFileStatsItem::iParam2

7.139.1.4 uint32 OsclFileStatsItem::iStartTick

7.139.1.5 uint32 OsclFileStatsItem::iTTotalTicks

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

- [oscl_file_stats.h](#)

7.140 Oscl_File::OsclFixedCacheParam Class Reference

```
#include <oscl_file_io.h>
```

Public Member Functions

- bool [Contains \(TOsclFileOffset pos\) const](#)

Data Fields

- TOsclFileOffset [iFilePosition](#)
- uint32 [iSize](#)

7.140.1 Detailed Description

Parameters for defining a fixed cache

7.140.2 Member Function Documentation

7.140.2.1 bool Oscl_File::OsclFixedCacheParam::Contains (TOsclFileOffset *pos*) const [inline]

References iFilePosition, and iSize.

7.140.3 Field Documentation

7.140.3.1 TOsclFileOffset Oscl_File::OsclFixedCacheParam::iFilePosition

Referenced by Contains().

7.140.3.2 uint32 Oscl_File::OsclFixedCacheParam::iSize

Referenced by Contains().

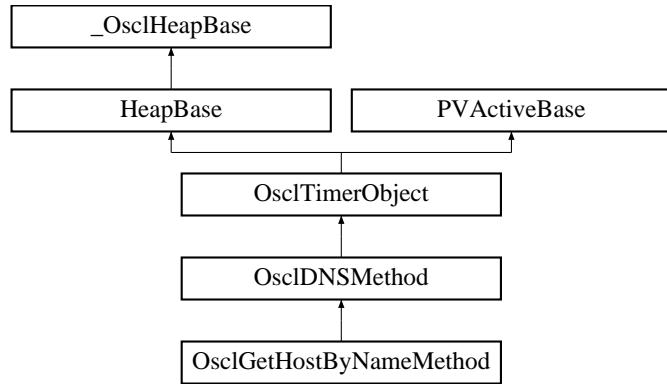
The documentation for this class was generated from the following file:

- [oscl_file_io.h](#)

7.141 OsclGetHostByNameMethod Class Reference

```
#include <oscl_dns_gethostbyname.h>
```

Inheritance diagram for OsclGetHostByNameMethod:



Public Member Functions

- `~OsclGetHostByNameMethod ()`
- `TPVDNSEvent GetHostByName (char *name, OsclNetworkAddress *addr, int32 aTimeout, Oscl_-Vector< OsclNetworkAddress, OsclMemAllocator > *aAddressList)`

Static Public Member Functions

- static `OsclGetHostByNameMethod * NewL (Oscl_DefAlloc &a, OsclDNSI *aDNS, OsclDNSObserver *aObserver, uint32 aId)`

7.141.1 Constructor & Destructor Documentation

7.141.1.1 OsclGetHostByNameMethod::~OsclGetHostByNameMethod ()

7.141.2 Member Function Documentation

7.141.2.1 TPVDNSEvent OsclGetHostByNameMethod::GetHostByName (char * *name*, OsclNetworkAddress * *addr*, int32 *aTimeout*, Oscl_-Vector< OsclNetworkAddress, OsclMemAllocator > * *aAddressList*)

7.141.2.2 static OsclGetHostByNameMethod* OsclGetHostByNameMethod::NewL (Oscl_DefAlloc &*a*, OsclDNSI * *aDNS*, OsclDNSObserver * *aObserver*, uint32 *aId*) [static]

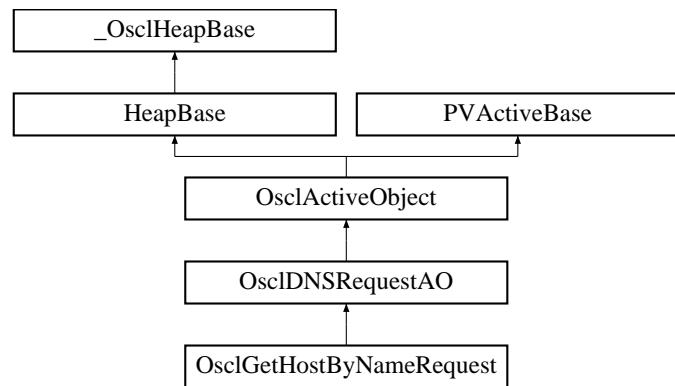
The documentation for this class was generated from the following file:

- `oscl_dns_gethostbyname.h`

7.142 OsclGetHostByNameRequest Class Reference

```
#include <oscl_dns_gethostbyname.h>
```

Inheritance diagram for OsclGetHostByNameRequest:



Friends

- class [OsclGetHostByNameMethod](#)

7.142.1 Friends And Related Function Documentation

7.142.1.1 friend class OsclGetHostByNameMethod [friend]

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

- [oscl_dns_gethostbyname.h](#)

7.143 OsclInit Class Reference

```
#include <oscl_init.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF void [Init](#) (int32 &aError, const [OsclSelect](#) *aSelect=NULL)
- static OSCL_IMPORT_REF void [Cleanup](#) (int32 &aError, const [OsclSelect](#) *aSelect=NULL)

7.143.1 Detailed Description

Per-thread oscl initialization and cleanup.

7.143.2 Member Function Documentation

7.143.2.1 static OSCL_IMPORT_REF void OsclInit::Cleanup (int32 & aError, const OsclSelect * aSelect = NULL) [static]

This routine cleans up the Oscl modules in the calling thread.

Parameters

err,: (output) error code of any leave that occurs in initialization.

config,: (input param) optional set of initialization parameters. If null, then full initialization with default parameters will be performed. For proper cleanup, the parameters should match the ones used during the Init call.

7.143.2.2 static OSCL_IMPORT_REF void OsclInit::Init (int32 & aError, const OsclSelect * aSelect = NULL) [static]

This routine initializes the Oscl modules in the calling thread.

Parameters

err,: (output) error code of any leave that occurs in initialization.

config,: (input param) optional set of initialization parameters. If null, then full initialization with default parameters will be performed.

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

- [oscl_init.h](#)

7.144 OsclInteger64Transport Struct Reference

```
#include <oscl_int64_utils.h>
```

Data Fields

- uint32 **iHigh**
- uint32 **iLow**

7.144.1 Detailed Description

[OsclInteger64Transport](#) Structure

Structure to only transport 64-bit integer values uint64 and int64 could be classes so needed for cases where having a class will not work.

7.144.2 Field Documentation

7.144.2.1 uint32 [OsclInteger64Transport::iHigh](#)

7.144.2.2 uint32 [OsclInteger64Transport::iLow](#)

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

- [oscl_int64_utils.h](#)

7.145 OsclIpMReq Class Reference

```
#include <oscl_socket_types.h>
```

Public Member Functions

- [OsclIpMReq \(const char *intrfcAddr, const char *multcstAddr\)](#)

Data Fields

- [OsclNameString< PVNETWORKADDRESS_LEN > interfaceAddr](#)
- [OsclNameString< PVNETWORKADDRESS_LEN > multicastAddr](#)

7.145.1 Constructor & Destructor Documentation

7.145.1.1 OsclIpMReq::OsclIpMReq (const char * *intrfcAddr*, const char * *multcstAddr*)
[[inline](#)]

7.145.2 Field Documentation

7.145.2.1 OsclNameString<PVNETWORKADDRESS_LEN> OsclIpMReq::interfaceAddr

7.145.2.2 OsclNameString<PVNETWORKADDRESS_LEN> OsclIpMReq::multicastAddr

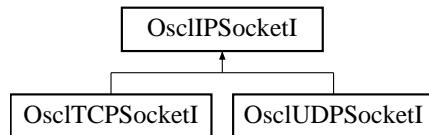
The documentation for this class was generated from the following file:

- [oscl_socket_types.h](#)

7.146 OsclIPSocketI Class Reference

```
#include <oscl_ip_socket.h>
```

Inheritance diagram for OsclIPSocketI:



Public Member Functions

- int32 [Bind \(OsclNetworkAddress &aAddress\)](#)
- int32 [Join \(OsclNetworkAddress &aAddress\)](#)
- int32 [SetRecvBufferSize \(uint32 size\)](#)
- int32 [SetOptionToReuseAddress \(\)](#)
- int32 [SetTOS \(const OsclSocketTOS &aTOS\)](#)
- int32 [GetPeerName \(OsclNetworkAddress &peerName\)](#)
- virtual int32 [Close \(\)=0](#)
- virtual uint8 * [GetRecvData \(int32 *aLength\)=0](#)
- virtual uint8 * [GetSendData \(int32 *aLength\)=0](#)
- virtual [~OsclIPSocketI \(\)](#)
- void [ThreadLogoff \(\)](#)
- void [ThreadLogon \(OsclSocketObserver *aObs, OsclSocketServI *aServ\)](#)
- [OsclSocketServI * SocketServ \(\)](#)
- [Oscl_DefAlloc & Alloc \(\)](#)

Protected Member Functions

- [OsclIPSocketI \(Oscl_DefAlloc &a\)](#)
- void [ConstructL \(OsclSocketObserver *aObs, OsclSocketI *aSock, OsclSocketServI *aServ, uint32 aId\)](#)

Protected Attributes

- [Oscl_DefAlloc & iAlloc](#)
- [OsclNetworkAddress iAddress](#)
- uint32 [iId](#)
- [OsclSocketObserver * iObserver](#)
- [OsclSocketI * iSocket](#)
- [OsclSocketServI * iSocketServ](#)
- [PVLogger * iLogger](#)

Friends

- class [OsclSocketRequestAO](#)
- class [OsclSocketMethod](#)

7.146.1 Constructor & Destructor Documentation

7.146.1.1 `virtual OsclIPSocketI::~OsclIPSocketI () [inline, virtual]`

7.146.1.2 `OsclIPSocketI::OsclIPSocketI (Oscl_DefAlloc & a) [inline, protected]`

7.146.2 Member Function Documentation

7.146.2.1 `Oscl_DefAlloc& OsclIPSocketI::Alloc () [inline]`

References iAlloc.

Referenced by OsclSocketRequestAO::Alloc(), and OsclSocketMethod::Alloc().

7.146.2.2 `int32 OsclIPSocketI::Bind (OsclNetworkAddress & aAddress)`

7.146.2.3 `virtual int32 OsclIPSocketI::Close () [pure virtual]`

Implemented in [OsclTCPSocketI](#), and [OsclUDPSocketI](#).

7.146.2.4 `void OsclIPSocketI::ConstructL (OsclSocketObserver * aObs, OsclSocketI * aSock, OsclSocketServI * aServ, uint32 aId) [protected]`

7.146.2.5 `int32 OsclIPSocketI::GetPeerName (OsclNetworkAddress & peerName)`

7.146.2.6 `virtual uint8* OsclIPSocketI::GetRecvData (int32 * aLength) [pure virtual]`

Implemented in [OsclTCPSocketI](#), and [OsclUDPSocketI](#).

7.146.2.7 `virtual uint8* OsclIPSocketI::GetSendData (int32 * aLength) [pure virtual]`

Implemented in [OsclTCPSocketI](#), and [OsclUDPSocketI](#).

7.146.2.8 `int32 OsclIPSocketI::Join (OsclNetworkAddress & aAddress)`

7.146.2.9 `int32 OsclIPSocketI::SetOptionToReuseAddress ()`

7.146.2.10 `int32 OsclIPSocketI::SetRecvBufferSize (uint32 size)`

7.146.2.11 `int32 OsclIPSocketI::SetTOS (const OsclSocketTOS & aTOS)`

7.146.2.12 `OsclSocketServI* OsclIPSocketI::SocketServ () [inline]`

References iSocketServ.

7.146.2.13 `void OsclIPSocketI::ThreadLogoff ()`

Reimplemented in [OsclTCPSocketI](#), and [OsclUDPSocketI](#).

7.146.2.14 void OsclIPSocketI::ThreadLogon (OsclSocketObserver * *aObs*, OsclSocketServI * *aServ*)

7.146.3 Friends And Related Function Documentation

7.146.3.1 friend class OsclSocketMethod [friend]

7.146.3.2 friend class OsclSocketRequestAO [friend]

7.146.4 Field Documentation

7.146.4.1 OsclNetworkAddress OsclIPSocketI::iAddress [protected]

Referenced by OsclUDPSocketI::BindAsync(), and OsclTCPSocketI::BindAsync().

7.146.4.2 Oscl_DefAlloc& OsclIPSocketI::iAlloc [protected]

Referenced by Alloc().

7.146.4.3 uint32 OsclIPSocketI::iId [protected]

Referenced by OsclSocketRequestAO::Id().

7.146.4.4 PVLogger* OsclIPSocketI::iLogger [protected]

7.146.4.5 OsclSocketObserver* OsclIPSocketI::iObserver [protected]

Referenced by OsclTCPSocketI::Accept(), OsclUDPSocketI::BindAsync(), OsclTCPSocketI::BindAsync(), OsclTCPSocketI::Connect(), OsclTCPSocketI::ListenAsync(), OsclTCPSocketI::Recv(), OsclUDPSocketI::RecvFrom(), OsclTCPSocketI::Send(), OsclUDPSocketI::SendTo(), OsclTCPSocketI::Shutdown(), and OsclSocketRequestAO::SocketObserver().

7.146.4.6 OsclSocketI* OsclIPSocketI::iSocket [protected]

Referenced by OsclTCPSocketI::Listen(), and OsclSocketRequestAO::SocketI().

7.146.4.7 OsclSocketServI* OsclIPSocketI::iSocketServ [protected]

Referenced by SocketServ().

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

- [oscl_ip_socket.h](#)

7.147 OsclJump Class Reference

```
#include <oscl_error_imp_jumps.h>
```

Public Member Functions

- void [Jump](#) (int a)
- jmp_buf * [Top](#) ()
- [~OsclJump](#) ()

Static Public Member Functions

- static OSCL_IMPORT_REF void [StaticJump](#) (int a)

Friends

- class [OsclErrorTrapImp](#)

7.147.1 Constructor & Destructor Documentation

7.147.1.1 [OsclJump::~OsclJump \(\)](#) [inline]

References OSCL_ASSERT.

7.147.2 Member Function Documentation

7.147.2.1 [void OsclJump::Jump \(int a\)](#) [inline]

References _OSCL_Abort(), OSCL_ASSERT, and Top().

7.147.2.2 [static OSCL_IMPORT_REF void OsclJump::StaticJump \(int a\)](#) [static]

7.147.2.3 [jmp_buf* OsclJump::Top \(\)](#) [inline]

References OSCL_ASSERT.

Referenced by [Jump\(\)](#).

7.147.3 Friends And Related Function Documentation

7.147.3.1 [friend class OsclErrorTrapImp](#) [friend]

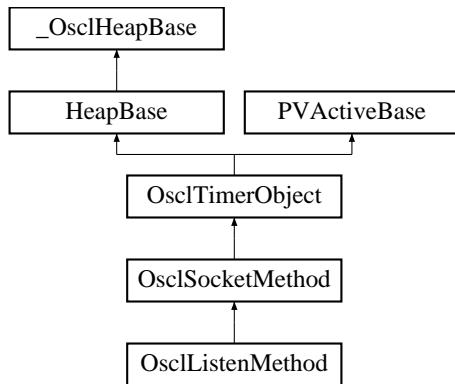
The documentation for this class was generated from the following file:

- [oscl_error_imp_jumps.h](#)

7.148 OsclListenMethod Class Reference

```
#include <oscl_socket_listen.h>
```

Inheritance diagram for OsclListenMethod:



Public Member Functions

- [~OsclListenMethod \(\)](#)
- [TPVSocketEvent Listen \(uint32 qsize, int32 aTimeout\)](#)
- [OsclListenRequest * ListenRequest \(\)](#)

Static Public Member Functions

- static [OsclListenMethod * NewL \(OsclIPSocketI &c\)](#)

7.148.1 Constructor & Destructor Documentation

7.148.1.1 OsclListenMethod::~OsclListenMethod ()

7.148.2 Member Function Documentation

7.148.2.1 TPVSocketEvent OsclListenMethod::Listen (uint32 *qsize*, int32 *aTimeout*)

Referenced by OsclTCPSocketI::ListenAsync().

7.148.2.2 OsclListenRequest* OsclListenMethod::ListenRequest () [inline]

References OsclSocketMethod::iSocketRequestAO.

7.148.2.3 static OsclListenMethod* OsclListenMethod::NewL (OsclIPSocketI & *c*) [static]

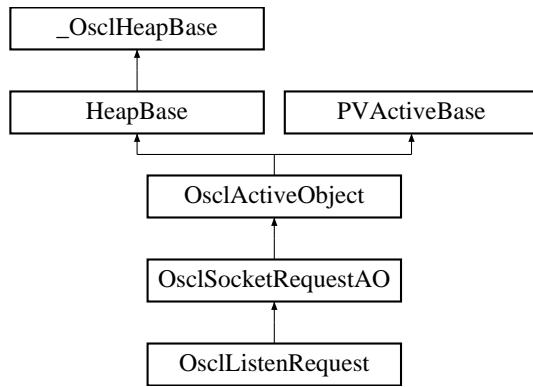
The documentation for this class was generated from the following file:

- [oscl_socket_listen.h](#)

7.149 OsclListenRequest Class Reference

```
#include <oscl_socket_listen.h>
```

Inheritance diagram for OsclListenRequest:



Public Member Functions

- [OsclListenRequest \(OsclSocketMethod &c\)](#)
- void [Listen \(uint32 qsize\)](#)

7.149.1 Detailed Description

This is the AO that interacts with the socket server

7.149.2 Constructor & Destructor Documentation

7.149.2.1 OsclListenRequest::OsclListenRequest (OsclSocketMethod & c) [inline]

7.149.3 Member Function Documentation

7.149.3.1 void OsclListenRequest::Listen (uint32 qsize)

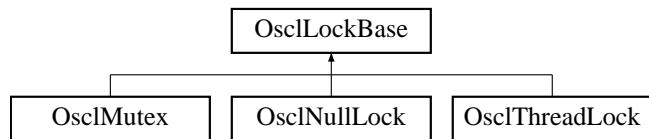
The documentation for this class was generated from the following file:

- [oscl_socket_listen.h](#)

7.150 OsclLockBase Class Reference

```
#include <oscl_lock_base.h>
```

Inheritance diagram for OsclLockBase:



Public Member Functions

- virtual void [Lock \(\)=0](#)
- virtual void [Unlock \(\)=0](#)
- virtual [~OsclLockBase \(\)](#)

7.150.1 Constructor & Destructor Documentation

7.150.1.1 virtual OsclLockBase::[~OsclLockBase \(\)](#) [inline, [virtual](#)]

7.150.2 Member Function Documentation

7.150.2.1 virtual void OsclLockBase::[Lock \(\)](#) [[pure virtual](#)]

Implemented in [OsclNullLock](#), [OsclMutex](#), and [OsclThreadLock](#).

7.150.2.2 virtual void OsclLockBase::[Unlock \(\)](#) [[pure virtual](#)]

Implemented in [OsclNullLock](#), [OsclMutex](#), and [OsclThreadLock](#).

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

- [oscl_lock_base.h](#)

7.151 OsclMem Class Reference

```
#include <oscl_mem.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF void [Init \(\)](#)
- static OSCL_IMPORT_REF void [Cleanup \(\)](#)

7.151.1 Member Function Documentation

7.151.1.1 static OSCL_IMPORT_REF void OsclMem::Cleanup () [static]

Per-thread cleanup of Oscl Memory

Exceptions

Leaves on error;

7.151.1.2 static OSCL_IMPORT_REF void OsclMem::Init () [static]

Per-thread initialization of Oscl Memory

Parameters

lock,: A lock class for use with multi-threaded applications. The lock is needed in use cases where memory may be allocated in one thread and freed in another. In this case, there must be a single lock object, and its pointer must be passed to the [OsclMem::Init](#) call in each thread. If no lock is provided, the memory manager will not be thread-safe.

Exceptions

Leaves on error

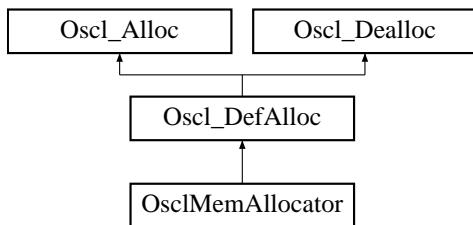
The documentation for this class was generated from the following file:

- [oscl_mem.h](#)

7.152 OsclMemAllocator Class Reference

```
#include <oscl_mem.h>
```

Inheritance diagram for OsclMemAllocator:



Public Member Functions

- [OsclAny * allocate \(const uint32 n\)](#)
- [void deallocate \(OsclAny *p\)](#)

7.152.1 Detailed Description

A simple allocator class. Configurable as to whether this goes through the memory manager or not.

7.152.2 Member Function Documentation

7.152.2.1 OsclAny* OsclMemAllocator::allocate (const uint32 n) [inline, virtual]

This API throws an exception when malloc returns NULL. n must be greater than 0.

Returns

pointer (or Leave with OsclErrNoMemory)

Implements [Oscl_DefAlloc](#).

References `_oscl_malloc()`, `Oscl_DefAlloc::allocate_f()`, `OsclError::LeaveIfNull()`, `NULL`, and `oscl_memset()`.

Referenced by `OsclMemAllocDestructDealloc< T >::allocate()`.

7.152.2.2 void OsclMemAllocator::deallocate (OsclAny *p) [inline, virtual]

Implements [Oscl_DefAlloc](#).

References `OSCL_FREE`.

Referenced by `OsclMemAllocDestructDealloc< T >::deallocate()`.

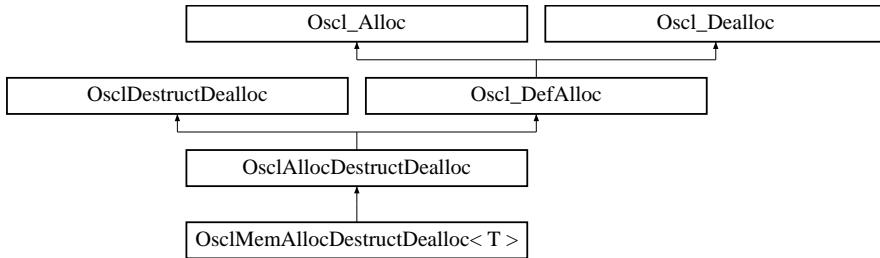
The documentation for this class was generated from the following file:

- [oscl_mem.h](#)

7.153 OsclMemAllocDestructDealloc< T > Class Template Reference

```
#include <oscl_mem.h>
```

Inheritance diagram for OsclMemAllocDestructDealloc< T >:



Public Member Functions

- [OsclAny * allocate \(const uint32 size\)](#)
- void [deallocate \(OsclAny *p\)](#)
- void [destruct_and_dealloc \(OsclAny *p\)](#)

7.153.1 Detailed Description

`template<class T> class OsclMemAllocDestructDealloc< T >`

An [OsclAllocDestructDealloc](#) class that uses [OsclMemAllocator](#).

7.153.2 Member Function Documentation

7.153.2.1 template<class T > OsclAny* OsclMemAllocDestructDealloc< T >::allocate (const uint32 size) [inline, virtual]

Implements [Oscl_DefAlloc](#).

References [OsclMemAllocator::allocate\(\)](#), [Oscl_DefAlloc::allocate_fl\(\)](#), and [NULL](#).

7.153.2.2 template<class T > void OsclMemAllocDestructDealloc< T >::deallocate (OsclAny * p) [inline, virtual]

Implements [Oscl_DefAlloc](#).

References [OsclMemAllocator::deallocate\(\)](#).

Referenced by [OsclMemAllocDestructDealloc< T >::destruct_and_dealloc\(\)](#).

7.153.2.3 template<class T > void OsclMemAllocDestructDealloc< T >::destruct_and_dealloc (OsclAny * p) [inline, virtual]

Implements [OsclDestructDealloc](#).

References OsclMemAllocDestructDealloc< T >::deallocate(), and OSCL_UNUSED_ARG.

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

- [oscl_mem.h](#)

7.154 OsclMemAudit Class Reference

```
#include <oscl_mem_audit.h>
```

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

- [oscl_mem_audit.h](#)

7.155 OSCLMemAutoPtr< T, _Allocator > Class Template Reference

The oscl_auto_ptr class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or indirectly) by new. When the oscl_auto_ptr expires, its destructor uses delete to free the memory.

```
#include <oscl_mem_auto_ptr.h>
```

Public Member Functions

- **OSCLMemAutoPtr** (T *inPtr=0)

Default constructor. Initializes the pointer and takes ownership.
- **OSCLMemAutoPtr** (const **OSCLMemAutoPtr**< T > &_Y)

Copy constructor.
- **OSCLMemAutoPtr**< T, _Allocator > & **operator=** (const **OSCLMemAutoPtr**< T, _Allocator > &_Y)

Assignment operator from an another oscl_auto_ptr.
- **~OSCLMemAutoPtr** ()

Destructor.
- T & **operator*** () const

The indirection operator () accesses a value indirectly, through a pointer.*
- T * **operator->** () const

The indirection operator (->) accesses a value indirectly, through a pointer.
- void **takeOwnership** (T *ptr)

The takeOwnership function assigns the value with ownership.
- void **allocate** (oscl_memsize_t size)
 • void **setWithoutOwnership** (T *ptr)

The takeOwnership function assigns the value with ownership.
- T * **get** () const

get() method returns the pointer, currently owned by the class.
- T * **release** () const

release() method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.

Static Public Member Functions

- static void **deallocate** (T *ptr)

Data Fields

- bool [_Ownership](#)

7.155.1 Detailed Description

```
template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> class
OSCLMemAutoPtr< T, _Allocator >
```

The oscl_auto_ptr class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or indirectly) by new. When the oscl_auto_ptr expires, its destructor uses delete to free the memory. The purpose of this class is to provide a way to prevent accidental memory leaks in a class or a method, due to "not remembering to delete" variables allocated on the heap. Thus if you assign an address returned by new to an oscl_auto_ptr object, you don't have to remember to free the memory later, it will be freed automatically when the object goes out of scope. The oscl_auto_ptr is an example of a smart pointer, an object that acts like a pointer, but with additional features. The class is defined so that it acts like a regular pointer in most respects

7.155.2 Constructor & Destructor Documentation

**7.155.2.1 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>>
OSCLMemAutoPtr< T, _Allocator >::OSCLMemAutoPtr (T * *inPtr* = 0) [inline,
explicit]**

Default constructor Initializes the pointer and takes ownership.

**7.155.2.2 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>>
OSCLMemAutoPtr< T, _Allocator >::OSCLMemAutoPtr (const OSCLMemAutoPtr<
T > & *Y*) [inline]**

Copy constructor.

Initializes the pointer and takes ownership from another oscl_auto_ptr. Note that the other class does NOT own the pointer any longer, and hence it is NOT its responsibility to free it.

**7.155.2.3 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>>
OSCLMemAutoPtr< T, _Allocator >::~OSCLMemAutoPtr () [inline]**

Destructor.

The pointer is deleted in case this class still has ownership

References OSCLMemAutoPtr< T, _Allocator >::_Ownership.

7.155.3 Member Function Documentation

**7.155.3.1 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> void
OSCLMemAutoPtr< T, _Allocator >::allocate (oscl_memsize_t *size*) [inline]**

References OSCLMemAutoPtr< T, _Allocator >::_Ownership.

7.155.3.2 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> static void OSCLMemAutoPtr< T, _Allocator >::deallocate (T *ptr) [inline, static]

7.155.3.3 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> T* OSCLMemAutoPtr< T, _Allocator >::get () const [inline]

[get\(\)](#) method returns the pointer, currently owned by the class.

Referenced by `OSCLMemAutoPtr< T, _Allocator >::operator=()`.

7.155.3.4 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> T& OSCLMemAutoPtr< T, _Allocator >::operator* () const [inline]

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the `OSCLMemAutoPtr` can be used like the regular pointer that it was initialized with.

7.155.3.5 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> T* OSCLMemAutoPtr< T, _Allocator >::operator-> () const [inline]

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the `OSCLMemAutoPtr` can be used like the regular pointer that it was initialized with.

7.155.3.6 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> OSCLMemAutoPtr<T, _Allocator>& OSCLMemAutoPtr< T, _Allocator >::operator=(const OSCLMemAutoPtr< T, _Allocator > & _Y) [inline]

Assignment operator from another `oscl_auto_ptr`.

Parameters

`_Y` The value parameter should be another `oscl_auto_ptr`

Returns

Returns a reference to this `oscl_auto_ptr` instance with pointer initialized.

Precondition

The input class should be non-null and should point to a valid pointer.

This assignment operator initializes the class to the contents of the `oscl_auto_ptr` given as the input parameter. The ownership of the pointer is transferred.

References `OSCLMemAutoPtr< T, _Allocator >::_Ownership`, `OSCLMemAutoPtr< T, _Allocator >::get()`, and `OSCLMemAutoPtr< T, _Allocator >::release()`.

7.155.3.7 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> T* OSCLMemAutoPtr< T, _Allocator >::release () const [inline]

[release\(\)](#) method releases ownership of the pointer, currently owned by the class. It returns the pointer as well.

Referenced by OSCLMemAutoPtr< T, _Allocator >::operator=().

7.155.3.8 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> void OSCLMemAutoPtr< T, _Allocator >::setWithoutOwnership (T * ptr) [inline]

The takeOwnership function assigns the value with ownership.

References OSCLMemAutoPtr< T, _Allocator >::_Ownership.

7.155.3.9 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> void OSCLMemAutoPtr< T, _Allocator >::takeOwnership (T * ptr) [inline]

The takeOwnership function assigns the value with ownership.

References OSCLMemAutoPtr< T, _Allocator >::_Ownership.

7.155.4 Field Documentation

7.155.4.1 template<class T, class _Allocator = Oscl_TAlloc<T, OsclMemAllocator>> bool OSCLMemAutoPtr< T, _Allocator >::_Ownership

Referenced by OSCLMemAutoPtr< T, _Allocator >::allocate(), OSCLMemAutoPtr< T, _Allocator >::operator=(), OSCLMemAutoPtr< T, _Allocator >::setWithoutOwnership(), OSCLMemAutoPtr< T, _Allocator >::takeOwnership(), and OSCLMemAutoPtr< T, _Allocator >::~OSCLMemAutoPtr().

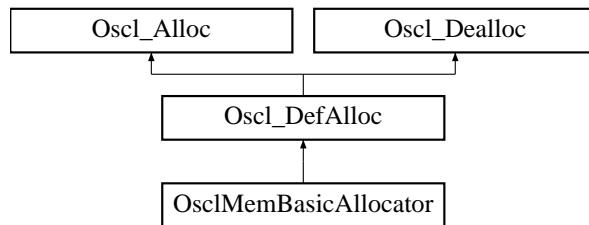
The documentation for this class was generated from the following file:

- [oscl_mem_auto_ptr.h](#)

7.156 OsclMemBasicAllocator Class Reference

```
#include <oscl_mem.h>
```

Inheritance diagram for OsclMemBasicAllocator:



Public Member Functions

- [OsclAny * allocate \(const uint32 n\)](#)
- [void deallocate \(OsclAny *p\)](#)

7.156.1 Detailed Description

A simple allocator class that does not use the memory management.

Note: this allocator is for internal use by Oscl only. Higher level code should use [OsclMemAllocator](#).

7.156.2 Member Function Documentation

7.156.2.1 [OsclAny* OsclMemBasicAllocator::allocate \(const uint32 n\) \[inline, virtual\]](#)

This API throws an exception when malloc returns NULL. n must be greater than 0.

Returns

pointer (or Leave with OsclErrNoMemory)

Implements [Oscl_DefAlloc](#).

References [_oscl_malloc\(\)](#), [OsclError::LeaveIfNull\(\)](#), and [oscl_memset\(\)](#).

Referenced by [OsclMemBasicAllocDestructDealloc< T >::allocate\(\)](#).

7.156.2.2 [void OsclMemBasicAllocator::deallocate \(OsclAny *p\) \[inline, virtual\]](#)

Implements [Oscl_DefAlloc](#).

References [_oscl_free\(\)](#).

Referenced by [OsclMemBasicAllocDestructDealloc< T >::deallocate\(\)](#).

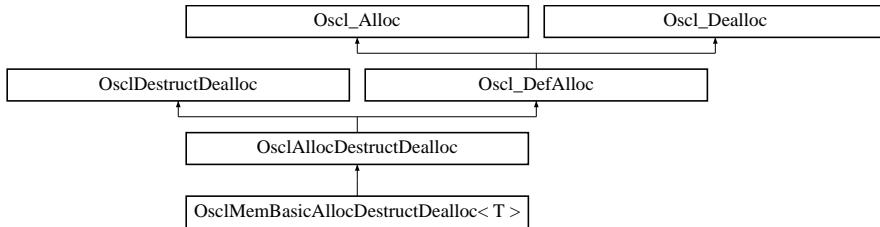
The documentation for this class was generated from the following file:

- [oscl_mem.h](#)

7.157 OsclMemBasicAllocDestructDealloc< T > Class Template Reference

```
#include <oscl_mem.h>
```

Inheritance diagram for OsclMemBasicAllocDestructDealloc< T >:



Public Member Functions

- [OsclAny * allocate \(const uint32 size\)](#)
- [void deallocate \(OsclAny *p\)](#)
- [void destruct_and_dealloc \(OsclAny *p\)](#)

7.157.1 Detailed Description

template<class T> class OsclMemBasicAllocDestructDealloc< T >

An [OsclAllocDestructDealloc](#) class that uses [OsclMemBasicAllocator](#).

7.157.2 Member Function Documentation

7.157.2.1 template<class T> OsclAny* OsclMemBasicAllocDestructDealloc< T >::allocate (const uint32 size) [inline, virtual]

Implements [Oscl_DefAlloc](#).

References [OsclMemBasicAllocator::allocate\(\)](#), [Oscl_DefAlloc::allocate_fl\(\)](#), and [NULL](#).

7.157.2.2 template<class T> void OsclMemBasicAllocDestructDealloc< T >::deallocate (OsclAny *p) [inline, virtual]

Implements [Oscl_DefAlloc](#).

References [OsclMemBasicAllocator::deallocate\(\)](#).

Referenced by [OsclMemBasicAllocDestructDealloc< T >::destruct_and_dealloc\(\)](#).

7.157.2.3 template<class T> void OsclMemBasicAllocDestructDealloc< T >::destruct_and_dealloc (OsclAny *p) [inline, virtual]

Implements [OsclDestructDealloc](#).

References OsclMemBasicAllocDestructDealloc< T >::deallocate(), and OSCL_UNUSED_ARG.

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

- [oscl_mem.h](#)

7.158 OsclMemGlobalAuditObject Class Reference

```
#include <oscl_mem.h>
```

Public Types

- `typedef OsclMemAudit audit_type`

Static Public Member Functions

- `static OSCL_IMPORT_REF audit_type * getGlobalMemAuditObject ()`

Friends

- class `OsclMem`

7.158.1 Member Typedef Documentation

7.158.1.1 `typedef OsclMemAudit OsclMemGlobalAuditObject::audit_type`

7.158.2 Member Function Documentation

7.158.2.1 `static OSCL_IMPORT_REF audit_type* OsclMemGlobalAuditObject::getGlobalMemAuditObject () [static]`

returns the global audit object. For use in macros only-- not a public API.

7.158.3 Friends And Related Function Documentation

7.158.3.1 `friend class OsclMem [friend]`

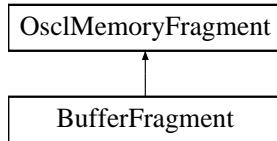
The documentation for this class was generated from the following file:

- `oscl_mem.h`

7.159 OsclMemoryFragment Struct Reference

```
#include <oscl_types.h>
```

Inheritance diagram for OsclMemoryFragment:



Data Fields

- uint32 [len](#)
- void * [ptr](#)

7.159.1 Field Documentation

7.159.1.1 uint32 OsclMemoryFragment::len

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetLocalFragment(), and MediaData< ChainClass, max_frags, local_bufsize >::IsLocalData().

7.159.1.2 void* OsclMemoryFragment::ptr

Referenced by BufFragGroup< ChainClass, max_frags >::AddFragment(), MediaData< ChainClass, max_frags, local_bufsize >::AddLocalFragment(), MediaData< ChainClass, max_frags, local_bufsize >::GetLocalFragment(), and MediaData< ChainClass, max_frags, local_bufsize >::IsLocalData().

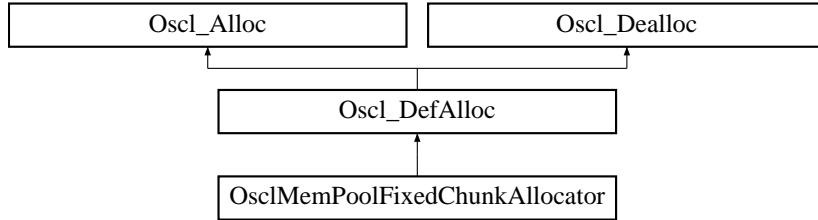
The documentation for this struct was generated from the following file:

- [oscl_types.h](#)

7.160 OsclMemPoolFixedChunkAllocator Class Reference

```
#include <oscl_mem_mempool.h>
```

Inheritance diagram for OsclMemPoolFixedChunkAllocator:



Public Member Functions

- OSCL_IMPORT_REF OsclMemPoolFixedChunkAllocator (const uint32 numchunk=1, const uint32 chunksize=0, Oscl_DefAlloc *gen_alloc=NULL, const uint32 chunkalignment=0)
- virtual OSCL_IMPORT_REF void enablenullpointerreturn ()
- virtual OSCL_IMPORT_REF ~OsclMemPoolFixedChunkAllocator ()
- virtual OSCL_IMPORT_REF OsclAny * allocate (const uint32 n)
- virtual OSCL_IMPORT_REF void deallocate (OsclAny *p)
- virtual OSCL_IMPORT_REF void notifyfreechunkavailable (OsclMemPoolFixedChunkAllocatorObserver &obs, OsclAny *aContextData=NULL)
- virtual OSCL_IMPORT_REF void CancelFreeChunkAvailableCallback ()
- OSCL_IMPORT_REF void addRef ()
- OSCL_IMPORT_REF void removeRef ()

Protected Member Functions

- virtual OSCL_IMPORT_REF void createmempool ()
- virtual OSCL_IMPORT_REF void destroymempool ()

Protected Attributes

- uint32 iNumChunk
- uint32 iChunkSize
- uint32 iChunkSizeMemAligned
- uint32 iChunkAlignment
- Oscl_DefAlloc * iMemPoolAllocator
- OsclAny * iMemPool
- OsclAny * iMemPoolAligned
- Oscl_Vector< OsclAny *, OsclMemAllocator > iFreeMemChunkList
- bool iCheckNextAvailableFreeChunk
- OsclMemPoolFixedChunkAllocatorObserver * iObserver
- OsclAny * iNextAvailableContextData
- int32 iRefCount
- bool iEnableNullPtrReturn

7.160.1 Constructor & Destructor Documentation

7.160.1.1 OSCL_IMPORT_REF OsclMemPoolFixedChunkAllocator::OsclMemPoolFixedChunkAllocator (const uint32 numchunk = 1, const uint32 chunkszie = 0, Oscl_DefAlloc *gen_alloc = NULL, const uint32 chunkalignment = 0)

This API throws an exception when the memory allocation for pool fails If numchunk and chunkszie parameters are not set, memory pool of 1 chunk will be created in the first call to allocate. The chunk size will be set to the n passed in for [allocate\(\)](#). If numchunk parameter is set to 0, the memory pool will use 1 for numchunk. If chunkalignment is set to 0, memory pool will use default allocator alignment (8-byte) If chunkalignment is > 0, memory pool will align all buffers in the mempool to the specified alignment. Alignment should be a power of 2

Returns

void

7.160.1.2 virtual OSCL_IMPORT_REF OsclMemPoolFixedChunkAllocator::~OsclMemPoolFixedChunkAllocator () [virtual]

The destructor for the memory pool

7.160.2 Member Function Documentation

7.160.2.1 OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::addRef ()

Increments the reference count for this memory pool allocator

Returns

void

7.160.2.2 virtual OSCL_IMPORT_REF OsclAny* OsclMemPoolFixedChunkAllocator::allocate (const uint32 n) [virtual]

This API throws an exception when n is greater than the fixed chunk size or there are no free chunk available in the pool, if "enablenullpointerreturn" has not been called. If the memory pool hasn't been created yet, the pool will be created with chunk size equal to n so n must be greater than 0. Exception will be thrown if memory allocation for the memory pool fails.

Returns

pointer to available chunk from memory pool

Implements [Oscl_DefAlloc](#).

7.160.2.3 virtual OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::CancelFreeChunkAvailableCallback () [virtual]

This API will cancel any past callback requests..

Returns

void

7.160.2.4 virtual OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::createmempool() [protected, virtual]

7.160.2.5 virtual OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::deallocate(OsclAny *p) [virtual]

This API throws an exception when the pointer p passed in is not part of the memory pool. Exception will be thrown if the memory pool is not set up yet.

Returns

void

Implements [Oscl_DefAlloc](#).

7.160.2.6 virtual OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::destroymempool() [protected, virtual]

7.160.2.7 virtual OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::enablenullpointerreturn() [virtual]

This API will disable exceptions in case the memory pool runs out of memory Instead of doing "OSCL_LEAVE(OsclErrNoResources)" allocate API will return NULL.

Returns

void

7.160.2.8 virtual OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::notifyfreechunkavailable(OsclMemPoolFixedChunkAllocatorObserver & obs, OsclAny * aContextData = NULL) [virtual]

This API will set the flag to send a callback via specified observer object when the next memory chunk is deallocated by [deallocate\(\)](#) call..

Returns

void

7.160.2.9 OSCL_IMPORT_REF void OsclMemPoolFixedChunkAllocator::removeRef()

Decrements the reference count for this memory pool allocator When the reference count goes to 0, this instance of the memory pool object is deleted

Returns

void

7.160.3 Field Documentation

- 7.160.3.1 `bool OsclMemPoolFixedChunkAllocator::iCheckNextAvailableFreeChunk [protected]`
- 7.160.3.2 `uint32 OsclMemPoolFixedChunkAllocator::iChunkAlignment [protected]`
- 7.160.3.3 `uint32 OsclMemPoolFixedChunkAllocator::iChunkSize [protected]`
- 7.160.3.4 `uint32 OsclMemPoolFixedChunkAllocator::iChunkSizeMemAligned [protected]`
- 7.160.3.5 `bool OsclMemPoolFixedChunkAllocator::iEnableNullPtrReturn [protected]`
- 7.160.3.6 `Oscl_Vector<OsclAny*, OsclMemAllocator> OsclMemPoolFixedChunkAllocator::iFreeMemChunkList [protected]`
- 7.160.3.7 `OsclAny* OsclMemPoolFixedChunkAllocator::iMemPool [protected]`
- 7.160.3.8 `OsclAny* OsclMemPoolFixedChunkAllocator::iMemPoolAligned [protected]`
- 7.160.3.9 `Oscl_DefAlloc* OsclMemPoolFixedChunkAllocator::iMemPoolAllocator [protected]`
- 7.160.3.10 `OsclAny* OsclMemPoolFixedChunkAllocator::iNextAvailableContextData [protected]`
- 7.160.3.11 `uint32 OsclMemPoolFixedChunkAllocator::iNumChunk [protected]`
- 7.160.3.12 `OsclMemPoolFixedChunkAllocatorObserver* OsclMemPoolFixedChunkAllocator::iObserver [protected]`
- 7.160.3.13 `int32 OsclMemPoolFixedChunkAllocator::iRefCount [protected]`

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

- [oscl_mem_mempool.h](#)

7.161 OsclMemPoolFixedChunkAllocatorObserver Class Reference

```
#include <oscl_mem_mempool.h>
```

Public Member Functions

- virtual void [freechunkavailable \(OsclAny *aContextData\)=0](#)
- virtual [~OsclMemPoolFixedChunkAllocatorObserver \(\)](#)

7.161.1 Constructor & Destructor Documentation

7.161.1.1 virtual

```
OsclMemPoolFixedChunkAllocatorObserver::~OsclMemPoolFixedChunkAllocatorObserver  
() [inline, virtual]
```

7.161.2 Member Function Documentation

7.161.2.1 virtual void OsclMemPoolFixedChunkAllocatorObserver::freechunkavailable (OsclAny * *aContextData*) [pure virtual]

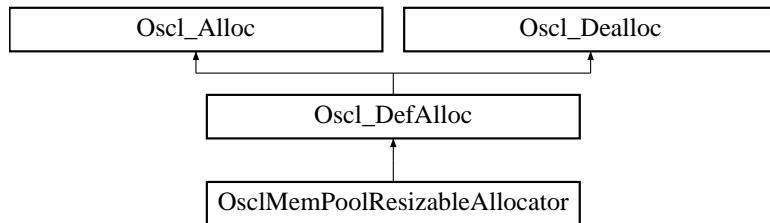
The documentation for this class was generated from the following file:

- [oscl_mem_mempool.h](#)

7.162 OsclMemPoolResizableAllocator Class Reference

```
#include <oscl_mem_mempool.h>
```

Inheritance diagram for OsclMemPoolResizableAllocator:



Data Structures

- struct [MemPoolBlockInfo](#)
- struct [MemPoolBufferInfo](#)

Public Member Functions

- OSCL_IMPORT_REF [OsclMemPoolResizableAllocator](#) (uint32 aMemPoolBufferSize, uint32 aMemPoolBufferNumLimit=0, uint32 aExpectedNumBlocksPerBuffer=0, [Oscl_DefAlloc](#) *gen_alloc=NULL)
- virtual OSCL_IMPORT_REF void [enablenullpointerreturn](#) ()
- virtual OSCL_IMPORT_REF [OsclAny](#) * [allocate](#) (const uint32 aNumBytes)
- virtual OSCL_IMPORT_REF void [deallocate](#) ([OsclAny](#) *aPtr)
- virtual OSCL_IMPORT_REF bool [trim](#) ([OsclAny](#) *aPtr, uint32 aBytesToFree)
- OSCL_IMPORT_REF uint32 [getBufferSize](#) () const
- virtual OSCL_IMPORT_REF uint32 [getAllocatedSize](#) () const
- virtual OSCL_IMPORT_REF uint32 [getAvailableSize](#) () const
- virtual OSCL_IMPORT_REF uint32 [getLargestContiguousFreeBlockSize](#) () const
- virtual OSCL_IMPORT_REF bool [setMaxSzForNewMemPoolBuffer](#) (uint32 aMaxNewMemPoolBufferSz)
- virtual OSCL_IMPORT_REF void [notifyfreeblockavailable](#) ([OsclMemPoolResizableAllocatorObserver](#) &aObserver, uint32 aRequestedSize=0, [OsclAny](#) *aContextData=NULL)
- virtual OSCL_IMPORT_REF void [CancelFreeChunkAvailableCallback](#) ()
- virtual OSCL_IMPORT_REF void [notifyfreememoryavailable](#) ([OsclMemPoolResizableAllocatorMemoryObserver](#) &aObserver, uint32 aRequestedSize=0, [OsclAny](#) *aContextData=NULL)
- OSCL_IMPORT_REF void [CancelFreeMemoryAvailableCallback](#) ()
- OSCL_IMPORT_REF void [addRef](#) ()
- OSCL_IMPORT_REF void [removeRef](#) ()

Protected Member Functions

- virtual ~[OsclMemPoolResizableAllocator](#) ()
- [MemPoolBufferInfo](#) * [addnewmempoolbuffer](#) (uint32 aBufferSize)
- void [destroyallmempoolbuffers](#) ()
- [MemPoolBlockInfo](#) * [findfreeblock](#) (uint32 aBlockSize)

- `OsclAny * allocateblock (MemPoolBlockInfo &aBlockPtr, uint32 aNumBytes)`
- `void deallocateblock (MemPoolBlockInfo &aBlockPtr)`
- `bool validateblock (OsclAny *aBlockBufPtr)`
- `uint32 getMemPoolBufferSize (MemPoolBufferInfo *aBufferInfo) const`
- `uint32 getMemPoolBufferAllocatedSize (MemPoolBufferInfo *aBufferInfo) const`
- `uint32 memoryPoolBufferMgmtOverhead () const`

Protected Attributes

- `uint32 iMemPoolBufferSize`
- `uint32 iMemPoolBufferNumLimit`
- `uint32 iExpectedNumBlocksPerBuffer`
- `uint32 iMaxNewMemPoolBufferSz`
- `Oscl_DefAlloc * iMemPoolBufferAllocator`
- `Oscl_Vector< MemPoolBufferInfo *, OsclMemAllocator > iMemPoolBufferList`
- `uint32 iMemPoolPrevAllocBufferIndex`
- `uint32 iBufferInfoAlignedSize`
- `uint32 iBlockInfoAlignedSize`
- `bool iCheckNextAvailable`
- `uint32 iRequestedNextAvailableSize`
- `OsclAny * iNextAvailableContextData`
- `OsclMemPoolResizableAllocatorObserver * iObserver`
- `bool iCheckFreeMemoryAvailable`
- `uint32 iRequestedAvailableFreeMemSize`
- `OsclAny * iFreeMemContextData`
- `OsclMemPoolResizableAllocatorMemoryObserver * iFreeMemPoolObserver`
- `int32 iRefCount`
- `bool iEnableNullPtrReturn`
- `OsclMemPoolResizableAllocatorLogger * iDebugLogger`

7.162.1 Constructor & Destructor Documentation

**7.162.1.1 OSCL_IMPORT_REF OsclMemPoolResizableAllocator::OsclMemPoolResizableAllocator (uint32 *aMemPoolBufferSize*,
aMemPoolBufferNumLimit = 0, *aExpectedNumBlocksPerBuffer* = 0,
Oscl_DefAlloc * *gen_alloc* = NULL)**

Create the memory pool allocator with resizing functionality. The size of the memory pool buffer needs to be passed-in. The maximum number of memory pool buffers, expected number of blocks in a memory pool buffer, and outside allocator are optional. This API throws an exception when the memory allocation for the pool buffer fails. If memory pool buffer number limit parameter is not set, the assumption is that there is no limit and memory pool will grow as needed. If the expected number of blocks is not set or not known, the memory pool will use a default value to 10 to allocate extra memory for the block info header.

Returns

`void`

**7.162.1.2 virtual OsclMemPoolResizableAllocator::~OsclMemPoolResizableAllocator ()
[protected, virtual]**

The destructor for the memory pool. Should not be called directly. Use [removeRef\(\)](#) instead.

7.162.2 Member Function Documentation**7.162.2.1 MemPoolBufferInfo* OsclMemPoolResizableAllocator::addnewmempoolbuffer (uint32
aBufferSize) [protected]****7.162.2.2 OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::addRef ()**

Increments the reference count for this memory pool allocator

Returns

void

**7.162.2.3 virtual OSCL_IMPORT_REF OsclAny* OsclMemPoolResizableAllocator::allocate
(const uint32 aNumBytes) [virtual]**

Allocates a block from the memory pool that is at least in size requested This API throws an exception if there isn't enough memory (if "enablenullpointerreturn" has not been called) for the requested amount in the pool or if the extra pool buffer cannot be allocated.

Returns

Pointer to memory buffer from memory pool

Implements [Oscl_DefAlloc](#).

**7.162.2.4 OsclAny* OsclMemPoolResizableAllocator::allocateblock (MemPoolBlockInfo &
aBlockPtr, uint32 aNumBytes) [protected]****7.162.2.5 virtual OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::CancelFreeChunkAvailableCallback () [virtual]**

This API will cancel any past callback requests..

Returns

void

7.162.2.6 OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::CancelFreeMemoryAvailableCallback ()**7.162.2.7 virtual OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::deallocate
(OsclAny * aPtr) [virtual]**

Deallocates and returns a block back to the memory pool This API throws an exception if the pointer passed in is not part of the memory pool, aligned, or has corrupted block header.

Returns

void

Implements [Oscl_DefAlloc](#).

7.162.2.8 void OsclMemPoolResizableAllocator::deallocateblock (MemPoolBlockInfo & aBlockPtr) [protected]

7.162.2.9 void OsclMemPoolResizableAllocator::destroyallmempoolbuffers () [protected]

7.162.2.10 virtual OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::enablenullpointerreturn () [virtual]

This API will disable exceptions in case the memory pool runs out of memory Instead of doing "OSCL_LEAVE(OsclErrNoResources)" allocate API will return NULL.

Returns

void

7.162.2.11 MemPoolBlockInfo* OsclMemPoolResizableAllocator::findfreeblock (uint32 aBlockSize) [protected]

7.162.2.12 virtual OSCL_IMPORT_REF uint32 OsclMemPoolResizableAllocator::getAllocatedSize () const [virtual]

Returns the number of bytes allocated from the buffer<including the="" overhead="" bytes="" that="" may="" be="" allocated="" by="" the="" allocater="" to="" keep="" track="" of="" the="" chunks="" allocated>="">

7.162.2.13 virtual OSCL_IMPORT_REF uint32 OsclMemPoolResizableAllocator::getAvailableSize () const [virtual]

Returns the number of bytes available with the buffer

7.162.2.14 OSCL_IMPORT_REF uint32 OsclMemPoolResizableAllocator::getBufferSize () const

Returns the size of the buffer <including the="" overhead="" bytes="" that="" may="" be="" allocated="" by="" the="" allocater>="">

7.162.2.15 virtual OSCL_IMPORT_REF uint32 OsclMemPoolResizableAllocator::getLargestContiguousFreeBlockSize () const [virtual]

Returns the size of the largest available chunk in the memory.

- 7.162.2.16** `uint32 OsclMemPoolResizableAllocator::getMemPoolBufferAllocatedSize (MemPoolBufferInfo * aBufferInfo) const [protected]`
- 7.162.2.17** `uint32 OsclMemPoolResizableAllocator::getMemPoolBufferSize (MemPoolBufferInfo * aBufferInfo) const [protected]`
- 7.162.2.18** `uint32 OsclMemPoolResizableAllocator::memoryPoolBufferMgmtOverhead () const [protected]`
- 7.162.2.19** `virtual OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::notifyfreeblockavailable (OsclMemPoolResizableAllocatorObserver & aObserver, uint32 aRequestedSize = 0, OsclAny * aContextData = NULL) [virtual]`

This API will set the flag to send a callback via specified observer object when the next memory block is deallocated by `deallocate()` call. If the optional requested size parameter is set, the callback is sent when a free memory space of requested size becomes available. The optional context data is returned with the callback and can be used by the user to differentiate between different instances of memory pool objects. This memory pool only allows one notify to be queued. Another call to this function will just overwrite the previous call.

Returns

`void`

- 7.162.2.20** `virtual OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::notifyfreememoryavailable (OsclMemPoolResizableAllocatorMemoryObserver & aObserver, uint32 aRequestedSize = 0, OsclAny * aContextData = NULL) [virtual]`

- 7.162.2.21** `OSCL_IMPORT_REF void OsclMemPoolResizableAllocator::removeRef ()`

Decrements the reference count for this memory pool allocator. When the reference count goes to 0, this instance of the memory pool object is deleted.

Returns

`void`

- 7.162.2.22** `virtual OSCL_IMPORT_REF bool OsclMemPoolResizableAllocator::setMaxSzForNewMemPoolBuffer (uint32 aMaxNewMemPoolBufferSz) [virtual]`

- 7.162.2.23** `virtual OSCL_IMPORT_REF bool OsclMemPoolResizableAllocator::trim (OsclAny * aPtr, uint32 aBytesToFree) [virtual]`

Returns a tail segment of a previously allocated memory block back to the memory pool. The passed-in pointer to the memory buffer is still valid after the call completes but the buffer size is smaller by the specified amount that was freed. This function allows the user to allocate a larger size block initially when the amount needed is unknown and then return the unused portion of the block when the amount becomes known. This API throws an exception if the pointer passed in is not part of the memory pool or the size to return is bigger than the size of the passed-in block. Exception will be thrown if the memory pool is not set up yet.

Returns

bool True if trim operation successful. False if the block wasn't trimmed

7.162.2.24 `bool OsclMemPoolResizableAllocator::validateblock (OsclAny * aBlockBufPtr)` [protected]

7.162.3 Field Documentation

7.162.3.1 `uint32 OsclMemPoolResizableAllocator::iBlockInfoAlignedSize` [protected]

7.162.3.2 `uint32 OsclMemPoolResizableAllocator::iBufferInfoAlignedSize` [protected]

7.162.3.3 `bool OsclMemPoolResizableAllocator::iCheckFreeMemoryAvailable` [protected]

7.162.3.4 `bool OsclMemPoolResizableAllocator::iCheckNextAvailable` [protected]

7.162.3.5 `OsclMemPoolResizableAllocatorLogger* OsclMemPoolResizableAllocator::iDebugLogger` [protected]

7.162.3.6 `bool OsclMemPoolResizableAllocator::iEnableNullPtrReturn` [protected]

7.162.3.7 `uint32 OsclMemPoolResizableAllocator::iExpectedNumBlocksPerBuffer` [protected]

7.162.3.8 `OsclAny* OsclMemPoolResizableAllocator::iFreeMemContextData` [protected]

7.162.3.9 `OsclMemPoolResizableAllocatorMemoryObserver* OsclMemPoolResizableAllocator::iFreeMemPoolObserver` [protected]

7.162.3.10 `uint32 OsclMemPoolResizableAllocator::iMaxNewMemPoolBufferSz` [protected]

7.162.3.11 `Oscl_DefAlloc* OsclMemPoolResizableAllocator::iMemPoolBufferAllocator` [protected]

7.162.3.12 `Oscl_Vector<MemPoolBufferInfo*, OsclMemAllocator> OsclMemPoolResizableAllocator::iMemPoolBufferList` [protected]

7.162.3.13 `uint32 OsclMemPoolResizableAllocator::iMemPoolBufferNumLimit` [protected]

7.162.3.14 `uint32 OsclMemPoolResizableAllocator::iMemPoolBufferSize` [protected]

7.162.3.15 `uint32 OsclMemPoolResizableAllocator::iMemPoolPrevAllocBufferIndex` [protected]

7.162.3.16 `OsclAny* OsclMemPoolResizableAllocator::iNextAvailableContextData` [protected]

7.162.3.17 `OsclMemPoolResizableAllocatorObserver* OsclMemPoolResizableAllocator::iObserver` [protected]

7.162.3.18 `int32 OsclMemPoolResizableAllocator::iRefCount` [protected]

7.162.3.19 `uint32 OsclMemPoolResizableAllocator::iRequestedAvailableFreeMemSize` [protected]

7.162.3.20 `uint32 OsclMemPoolResizableAllocator::iRequestedNextAvailableSize` [protected]

- [oscl_mem_mempool.h](#)

7.163 OsclMemPoolResizableAllocatorMemoryObserver Class Reference

```
#include <oscl_mem_mempool.h>
```

Public Member Functions

- virtual void `freememoryavailable (OsclAny *aContextData)=0`
- virtual `~OsclMemPoolResizableAllocatorMemoryObserver ()`

7.163.1 Constructor & Destructor Documentation

7.163.1.1 virtual
OsclMemPoolResizableAllocatorMemoryObserver::`~OsclMemPoolResizableAllocatorMemoryObserver () [inline, virtual]`

7.163.2 Member Function Documentation

7.163.2.1 virtual void `OsclMemPoolResizableAllocatorMemoryObserver::freememoryavailable (OsclAny * aContextData) [pure virtual]`

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

- `oscl_mem_mempool.h`

7.164 OsclMemPoolResizableAllocatorObserver Class Reference

```
#include <oscl_mem_mempool.h>
```

Public Member Functions

- virtual void [freeblockavailable \(OsclAny *aContextData\)=0](#)
- virtual [~OsclMemPoolResizableAllocatorObserver \(\)](#)

7.164.1 Constructor & Destructor Documentation

7.164.1.1 virtual

```
OsclMemPoolResizableAllocatorObserver::~OsclMemPoolResizableAllocatorObserver  
() [inline, virtual]
```

7.164.2 Member Function Documentation

7.164.2.1 virtual void OsclMemPoolResizableAllocatorObserver::freeblockavailable (OsclAny * *aContextData*) [pure virtual]

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

- [oscl_mem_mempool.h](#)

7.165 OsclMemStatsNode Class Reference

```
#include <oscl_mem_audit.h>
```

Public Member Functions

- [OsclMemStatsNode \(\)](#)
- [void reset \(\)](#)
- [~OsclMemStatsNode \(\)](#)
- [void * operator new \(oscl_memsize_t size\)](#)
- [void * operator new \(oscl_memsize_t size, OsclMemStatsNode *ptr\)](#)
- [void operator delete \(void *ptr\) throw \(\)](#)

Data Fields

- [MM_Stats_t * pMMStats](#)
- [MM_FailInsertParam * pMMFIParam](#)
- [char * tag](#)

7.165.1 Constructor & Destructor Documentation

7.165.1.1 OsclMemStatsNode::OsclMemStatsNode () [inline]

References NULL, pMMFIParam, pMMStats, and tag.

7.165.1.2 OsclMemStatsNode::~OsclMemStatsNode () [inline]

References Oscl_TAlloc< T, Alloc >::deallocate(), OSCL_DELETE, pMMFIParam, pMMStats, and tag.

7.165.2 Member Function Documentation

7.165.2.1 void OsclMemStatsNode::operator delete (void *ptr) throw () [inline]

References Oscl_TAlloc< T, Alloc >::deallocate().

7.165.2.2 void* OsclMemStatsNode::operator new (oscl_memsize_t size, OsclMemStatsNode *ptr) [inline]

References OSCL_UNUSED_ARG.

7.165.2.3 void* OsclMemStatsNode::operator new (oscl_memsize_t size) [inline]

References Oscl_TAlloc< T, Alloc >::allocate(), and OSCL_UNUSED_ARG.

7.165.2.4 void OsclMemStatsNode::reset () [inline]

References pMMFIParam, pMMStats, MM_FailInsertParam::reset(), and MM_Stats_t::reset().

7.165.3 Field Documentation

7.165.3.1 MM_FailInsertParam* OsclMemStatsNode::pMMFIParam

Referenced by OsclMemStatsNode(), reset(), and ~OsclMemStatsNode().

7.165.3.2 MM_Stats_t* OsclMemStatsNode::pMMStats

Referenced by OsclMemStatsNode(), reset(), and ~OsclMemStatsNode().

7.165.3.3 char* OsclMemStatsNode::tag

Referenced by OsclMemStatsNode(), and ~OsclMemStatsNode().

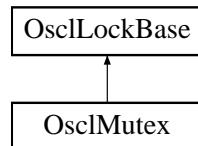
The documentation for this class was generated from the following file:

- [oscl_mem_audit.h](#)

7.166 OsclMutex Class Reference

```
#include <oscl_mutex.h>
```

Inheritance diagram for OsclMutex:



Public Member Functions

- OSCL_IMPORT_REF OsclMutex ()
- virtual OSCL_IMPORT_REF ~OsclMutex ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Create (void)
- OSCL_IMPORT_REF void Lock ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError TryLock ()
- OSCL_IMPORT_REF void Unlock ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Close (void)

7.166.1 Detailed Description

Class [OsclMutex](#)

7.166.2 Constructor & Destructor Documentation

7.166.2.1 OSCL_IMPORT_REF OsclMutex::OsclMutex ()

Class constructor

7.166.2.2 virtual OSCL_IMPORT_REF OsclMutex::~OsclMutex () [virtual]

Class destructor

7.166.3 Member Function Documentation

7.166.3.1 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclMutex::Close (void)

Closes the Mutex

Parameters

It wont take any parameters

Returns

Returns the Error whether it is success or failure. Incase of failure it will return what is the specific error

7.166.3.2 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclMutex::Create (void)

Creates the Mutex

Parameters

No input arguments

Returns

Returns the Error whether it is success or failure. Incase of failure it will return what is the specific error

7.166.3.3 OSCL_IMPORT_REF void OsclMutex::Lock () [virtual]

Locks the Mutex

Parameters

It wont take any parameters

Returns

Returns nothing

Implements [OsclLockBase](#).

7.166.3.4 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclMutex::TryLock ()

Try to lock the mutex,if the Mutex is already locked calling thread immediately returns with out blocking

Parameters

It wont take any parameters

Returns

Returns SUCCESS_ERROR if the mutex was acquired, MUTEX_LOCKED_ERROR if the mutex cannot be acquired without waiting, or an error code if the operation failed. Note: this function may not be supported on all platforms, and may return NOT_IMPLEMENTED.

7.166.3.5 OSCL_IMPORT_REF void OsclMutex::Unlock () [virtual]

Releases the Mutex

Parameters

It wont take any parameters

Returns

Returns nothing

Implements [OsclLockBase](#).

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

- [oscl_mutex.h](#)

7.167 OsclNameString< __len > Class Template Reference

```
#include <oscl_namestring.h>
```

Public Member Functions

- [OsclNameString \(\)](#)
- [OsclNameString \(const char a\[\]\)](#)
- [OsclNameString \(uint8 *a\)](#)
- void [Set \(uint8 *a\)](#)
- void [Set \(const char a\[\]\)](#)
- uint8 * [Str \(\) const](#)
- int32 [MaxLen \(\) const](#)

7.167.1 Detailed Description

template<int __len> class OsclNameString< __len >

Name string class appropriate for passing short constant ASCII strings around. All strings are automatically truncated and null-terminated.

7.167.2 Constructor & Destructor Documentation

7.167.2.1 template<int __len> OsclNameString< __len >::OsclNameString () [inline]

7.167.2.2 template<int __len> OsclNameString< __len >::OsclNameString (const char a[]) [inline]

7.167.2.3 template<int __len> OsclNameString< __len >::OsclNameString (uint8 * a) [inline]

7.167.3 Member Function Documentation

7.167.3.1 template<int __len> int32 OsclNameString< __len >::MaxLen () const [inline]

7.167.3.2 template<int __len> void OsclNameString< __len >::Set (const char a[]) [inline]

7.167.3.3 template<int __len> void OsclNameString< __len >::Set (uint8 * a) [inline]

Set the string to the input value. The string will be truncated to fit the storage class and automatically null-terminated.

Parameters

a (input param): null-terminated character string.

Referenced by OsclUDPSocketI::BindAsync(), OsclTCPSocketI::BindAsync(), OsclNameString< PVNETWORKADDRESS_LEN >::OsclNameString(), GetHostByNameParam::PersistHostAddress(), and OsclNameString< PVNETWORKADDRESS_LEN >::Set().

7.167.3.4 template<int __len> uint8* OsclNameString< __len >::Str () const [inline]

Referenced by OsclUDPSocketI::BindAsync(), OsclTCPSocketI::BindAsync(), GetHostByNameParam::canPersistMoreHostAddresses(), OsclNetworkAddress::operator==(), and GetHostByNameParam::PersistHostAddress().

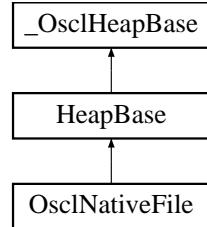
The documentation for this class was generated from the following file:

- [oscl_namestring.h](#)

7.168 OsclNativeFile Class Reference

```
#include <oscl_file_native.h>
```

Inheritance diagram for OsclNativeFile:



Public Member Functions

- [OsclNativeFile \(\)](#)
- [~OsclNativeFile \(\)](#)
- [int32 Open \(const OsclFileHandle &, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv\)](#)
- [int32 Open \(const oscl_wchar *filename, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv\)](#)
- [int32 Open \(const char *filename, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv\)](#)
- [uint32 Read \(OsclAny *buffer, uint32 size, uint32 numelements\)](#)
- [uint32 Write \(const OsclAny *buffer, uint32 size, uint32 numelements\)](#)
- [int32 Seek \(TOsclFileOffset offset, Oscl_File::seek_type origin\)](#)
- [TOsclFileOffset Tell \(\)](#)
- [int32 Flush \(\)](#)
- [int32 EndOfFile \(\)](#)
- [TOsclFileOffset Size \(\)](#)
- [int32 Close \(\)](#)
- [int32 SetSize \(uint32 size\)](#)
- [uint32 Mode \(\)](#)
- [int32 GetError \(\)](#)
- [int32 ReadAsync \(OsclAny *buffer, uint32 size, uint32 numelements, OsclAOStatus &status\)](#)
- [uint32 GetReadAsyncNumElements \(\)](#)
- [bool HasAsyncRead \(\)](#)
- [void ReadAsyncCancel \(\)](#)

7.168.1 Constructor & Destructor Documentation

7.168.1.1 OsclNativeFile::OsclNativeFile ()

7.168.1.2 OsclNativeFile::~OsclNativeFile ()

7.168.2 Member Function Documentation

7.168.2.1 int32 OsclNativeFile::Close ()

7.168.2.2 int32 OsclNativeFile::EndOfFile ()

7.168.2.3 int32 OsclNativeFile::Flush ()

7.168.2.4 int32 OsclNativeFile::GetError ()

7.168.2.5 uint32 OsclNativeFile::GetReadAsyncNumElements ()

Get the number of elements read in the last call to ReadAsync.

Returns

: number of elements read.

7.168.2.6 bool OsclNativeFile::HasAsyncRead ()

Returns

: true if async read is supported natively.

7.168.2.7 uint32 OsclNativeFile::Mode () [inline]

7.168.2.8 int32 OsclNativeFile::Open (const char *filename, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv)

7.168.2.9 int32 OsclNativeFile::Open (const oscl_wchar *filename, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv)

7.168.2.10 int32 OsclNativeFile::Open (const OsclFileHandle &, uint32 mode, const OsclNativeFileParams ¶ms, Oscl_FileServer &fileserv)

7.168.2.11 uint32 OsclNativeFile::Read (OsclAny *buffer, uint32 size, uint32 numelements)

7.168.2.12 int32 OsclNativeFile::ReadAsync (OsclAny *buffer, uint32 size, uint32 numelements, OsclAOStatus &status)

Asynchronous read.

Parameters

buffer,: data buffer, must be at least size*numelements bytes

size,: size of elements

numelements,: number of elements to read
status,: Request status for asynchronous completion

Returns

: 0 for success.

7.168.2.13 void OsclNativeFile::ReadAsyncCancel ()

Cancel any pending async read.

7.168.2.14 int32 OsclNativeFile::Seek (TOsclFileOffset *offset*, Oscl_File::seek_type *origin*)

7.168.2.15 int32 OsclNativeFile::SetSize (uint32 *size*)

7.168.2.16 TOsclFileOffset OsclNativeFile::Size ()

7.168.2.17 TOsclFileOffset OsclNativeFile::Tell ()

7.168.2.18 uint32 OsclNativeFile::Write (const OsclAny * *buffer*, uint32 *size*, uint32 *numelements*)

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

- [oscl_file_native.h](#)

7.169 OsclNativeFileParams Class Reference

```
#include <oscl_file_types.h>
```

Public Member Functions

- [OsclNativeFileParams](#) (uint32 mode=0, uint32 bufsize=0, uint32 asyncsize=0)

Data Fields

- uint32 [iNativeAccessMode](#)
- uint32 [iNativeBufferSize](#)
- uint32 [iAsyncReadBufferSize](#)

7.169.1 Constructor & Destructor Documentation

7.169.1.1 [OsclNativeFileParams::OsclNativeFileParams \(uint32 mode = 0, uint32 bufsize = 0, uint32 asyncsize = 0\) \[inline\]](#)

7.169.2 Field Documentation

7.169.2.1 [uint32 OsclNativeFileParams::iAsyncReadBufferSize](#)

7.169.2.2 [uint32 OsclNativeFileParams::iNativeAccessMode](#)

7.169.2.3 [uint32 OsclNativeFileParams::iNativeBufferSize](#)

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

- [oscl_file_types.h](#)

7.170 OsclNetworkAddress Class Reference

```
#include <oscl_socket_types.h>
```

Public Member Functions

- [OsclNetworkAddress \(\)](#)
- [OsclNetworkAddress \(const char *addr, int p\)](#)
- [bool operator== \(const OsclNetworkAddress &rhs\) const](#)

Data Fields

- [OsclNameString< PVNETWORKADDRESS_LEN > ipAddr](#)
- [int port](#)

7.170.1 Constructor & Destructor Documentation

7.170.1.1 OsclNetworkAddress::OsclNetworkAddress () [inline]

7.170.1.2 OsclNetworkAddress::OsclNetworkAddress (const char *addr, int p) [inline]

7.170.2 Member Function Documentation

7.170.2.1 bool OsclNetworkAddress::operator== (const OsclNetworkAddress &rhs) const [inline]

References ipAddr, oscl_strcmp(), port, and OsclNameString< __len >::Str().

7.170.3 Field Documentation

7.170.3.1 OsclNameString<PVNETWORKADDRESS_LEN> OsclNetworkAddress::ipAddr

Referenced by OsclUDPSocketI::BindAsync(), OsclTCPSocketI::BindAsync(), GetHostByNameParam::canPersistMoreHostAddresses(), operator==(), and GetHostByNameParam::PersistHostAddress().

7.170.3.2 int OsclNetworkAddress::port

Referenced by OsclUDPSocketI::BindAsync(), OsclTCPSocketI::BindAsync(), and operator==().

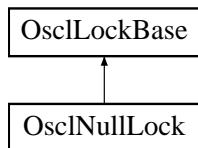
The documentation for this class was generated from the following file:

- [oscl_socket_types.h](#)

7.171 OsclNullLock Class Reference

```
#include <oscl_lock_base.h>
```

Inheritance diagram for OsclNullLock:



Public Member Functions

- virtual void [Lock \(\)](#)
- virtual void [Unlock \(\)](#)
- virtual [~OsclNullLock \(\)](#)

7.171.1 Constructor & Destructor Documentation

7.171.1.1 virtual OsclNullLock:[~OsclNullLock \(\)](#) [[inline](#), [virtual](#)]

7.171.2 Member Function Documentation

7.171.2.1 virtual void OsclNullLock:[::Lock \(\)](#) [[inline](#), [virtual](#)]

Implements [OsclLockBase](#).

7.171.2.2 virtual void OsclNullLock:[::Unlock \(\)](#) [[inline](#), [virtual](#)]

Implements [OsclLockBase](#).

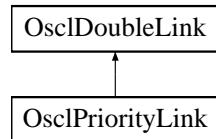
The documentation for this class was generated from the following file:

- [oscl_lock_base.h](#)

7.172 OsclPriorityLink Class Reference

```
#include <oscl_double_list.h>
```

Inheritance diagram for OsclPriorityLink:



Data Fields

- int32 [iPriority](#)

7.172.1 Field Documentation

7.172.1.1 int32 OsclPriorityLink::iPriority

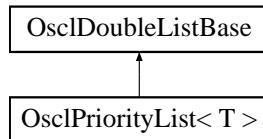
The documentation for this class was generated from the following file:

- [oscl_double_list.h](#)

7.173 OsclPriorityList< T > Class Template Reference

```
#include <oscl_double_list.h>
```

Inheritance diagram for OsclPriorityList< T >:



Public Member Functions

- OSCL_INLINE OsclPriorityList()
- OSCL_INLINE OsclPriorityList(int32 anOffset)
- OSCL_INLINE void Insert(T &aRef)
- OSCL_INLINE bool IsHead(const T *aPtr) const
- OSCL_INLINE bool IsTail(const T *aPtr) const
- OSCL_INLINE T * Head() const
- OSCL_INLINE T * Tail() const

template<class T> class OsclPriorityList< T >

7.173.1 Constructor & Destructor Documentation

7.173.1.1 template<class T > OSCL_INLINE OsclPriorityList< T >::OsclPriorityList()

**7.173.1.2 template<class T > OSCL_INLINE OsclPriorityList< T >::OsclPriorityList(int32
anOffset)**

7.173.2 Member Function Documentation

7.173.2.1 template<class T > OSCL_INLINE T* OsclPriorityList< T >::Head() const

7.173.2.2 template<class T > OSCL_INLINE void OsclPriorityList< T >::Insert(T &aRef)

**7.173.2.3 template<class T > OSCL_INLINE bool OsclPriorityList< T >::IsHead(const T *
aPtr) const**

**7.173.2.4 template<class T > OSCL_INLINE bool OsclPriorityList< T >::IsTail(const T *aPtr)
const**

7.173.2.5 template<class T > OSCL_INLINE T* OsclPriorityList< T >::Tail() const

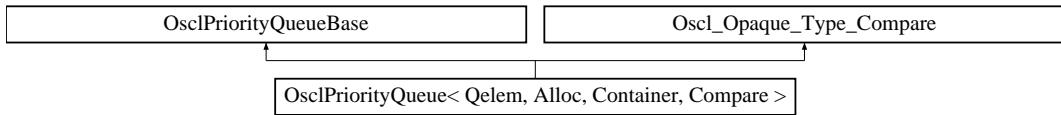
The documentation for this class was generated from the following file:

- [oscl_double_list.h](#)

7.174 OsclPriorityQueue< Qelem, Alloc, Container, Compare > Class Template Reference

```
#include <oscl_priqueue.h>
```

Inheritance diagram for OsclPriorityQueue< Qelem, Alloc, Container, Compare >:



Public Types

- `typedef Container::value_type value_type`
- `typedef Container container_type`
- `typedef Container::iterator iterator`
- `typedef Container::const_reference const_reference`

Public Member Functions

- `bool empty () const`
- `uint32 size () const`
- `void reserve (uint32 n)`
- `const_reference top () const`
- `const Container & vec ()`
- `void push (const value_type &input)`
- `void pop ()`
- `int remove (const value_type &input)`
- `OsclPriorityQueue ()`
- `virtual ~OsclPriorityQueue ()`

Protected Member Functions

- `void push_heap (iterator first, iterator last)`
- `void pop_heap (iterator first, iterator last)`
- `iterator find_heap (const value_type &input, iterator first, iterator last)`
- `int validate ()`
- `void swap (OsclAny *dest, const OsclAny *src)`
- `int compare_LT (OsclAny *a, OsclAny *b) const`
- `int compare_EQ (const OsclAny *a, const OsclAny *b) const`

Protected Attributes

- `Container c`
- `Compare comp`

Friends

- class [oscl_priqueue_test](#)

```
template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> class OsclPriorityQueue< Qelem, Alloc, Container, Compare >
```

7.174.1 Member Typedef Documentation

- 7.174.1.1 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> typedef Container::const_reference OsclPriorityQueue< Qelem, Alloc, Container, Compare >::const_reference`
- 7.174.1.2 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> typedef Container OsclPriorityQueue< Qelem, Alloc, Container, Compare >::container_type`
- 7.174.1.3 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> typedef Container::iterator OsclPriorityQueue< Qelem, Alloc, Container, Compare >::iterator`
- 7.174.1.4 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> typedef Container::value_type OsclPriorityQueue< Qelem, Alloc, Container, Compare >::value_type`

7.174.2 Constructor & Destructor Documentation

- 7.174.2.1 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> OsclPriorityQueue< Qelem, Alloc, Container, Compare >::OsclPriorityQueue () [inline]`
- 7.174.2.2 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> virtual OsclPriorityQueue< Qelem, Alloc, Container, Compare >::~OsclPriorityQueue () [inline, virtual]`

7.174.3 Member Function Documentation

- 7.174.3.1 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> int OsclPriorityQueue< Qelem, Alloc, Container, Compare >::compare_EQ (const OsclAny * a, const OsclAny * b) const [inline, protected, virtual]`

Return a==b.

Implements [Oscl_Opaque_Type_Compare](#).

- 7.174.3.2 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> int OsclPriorityQueue< Qelem, Alloc, Container, Compare >::compare_LT (OsclAny * a, OsclAny * b) const [inline, protected, virtual]`

Return a<b.

Implements [Oscl_Opaque_Type_Compare](#).

7.174.3.3 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> bool OsclPriorityQueue< Qelem, Alloc, Container, Compare >::empty () const [inline]`

7.174.3.4 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> iterator OsclPriorityQueue< Qelem, Alloc, Container, Compare >::find_heap (const value_type & input, iterator first, iterator last) [inline, protected]`

Referenced by `OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::find_heap()`.

7.174.3.5 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> void OsclPriorityQueue< Qelem, Alloc, Container, Compare >::pop () [inline]`

7.174.3.6 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> void OsclPriorityQueue< Qelem, Alloc, Container, Compare >::pop_heap (iterator first, iterator last) [inline, protected]`

Referenced by `OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::pop()`, and `OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::pop_heap()`.

7.174.3.7 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> void OsclPriorityQueue< Qelem, Alloc, Container, Compare >::push (const value_type & input) [inline]`

7.174.3.8 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> void OsclPriorityQueue< Qelem, Alloc, Container, Compare >::push_heap (iterator first, iterator last) [inline, protected]`

Referenced by `OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::push()`, and `OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::push_heap()`.

7.174.3.9 `template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> int OsclPriorityQueue< Qelem, Alloc, Container, Compare >::remove (const value_type & input) [inline]`

Referenced by `OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::remove()`.

7.174.3.10 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> void OsclPriorityQueue< Qelem, Alloc, Container, Compare >::reserve (uint32 *n*) [inline]

7.174.3.11 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> uint32 OsclPriorityQueue< Qelem, Alloc, Container, Compare >::size () const [inline]

7.174.3.12 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> void OsclPriorityQueue< Qelem, Alloc, Container, Compare >::swap (OsclAny * *a*, const OsclAny * *b*) [inline, protected, virtual]

Swap element at "a" with element at "b". Both pointers must be non-NUL.

Implements [Oscl_Opaque_Type_Compare](#).

7.174.3.13 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> const_reference OsclPriorityQueue< Qelem, Alloc, Container, Compare >::top () const [inline]

7.174.3.14 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> int OsclPriorityQueue< Qelem, Alloc, Container, Compare >::validate () [inline, protected]

7.174.3.15 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> const Container& OsclPriorityQueue< Qelem, Alloc, Container, Compare >::vec () [inline]

7.174.4 Friends And Related Function Documentation

7.174.4.1 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> friend class oscl_priqueue_test [friend]

7.174.5 Field Documentation

7.174.5.1 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> Container OsclPriorityQueue< Qelem, Alloc, Container, Compare >::c [protected]

Referenced by OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::empty(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::OsclPriorityQueue(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::pop(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::push(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::reserve(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::size(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::top(), OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::validate(), and OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::vec().

7.174.5.2 template<class Qelem, class Alloc, class Container = Oscl_Vector<Qelem, Alloc>, class Compare = OsclCompareLess<Qelem>> Compare OsclPriorityQueue< Qelem, Alloc, Container, Compare >::comp [protected]

Referenced by OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::compare_LT(), and OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::validate().

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

- [oscl_priqueue.h](#)

7.175 OsclPriorityQueueBase Class Reference

```
#include <oscl_priqueue.h>
```

Inheritance diagram for OsclPriorityQueueBase:



Protected Member Functions

- virtual ~OsclPriorityQueueBase ()
- OSCL_IMPORT_REF void push_heap (OsclAny *first, OsclAny *last)
- OSCL_IMPORT_REF void pop_heap (OsclAny *first, OsclAny *last)
- OSCL_IMPORT_REF OsclAny * find_heap (const OsclAny *input, OsclAny *first, OsclAny *last)
- OSCL_IMPORT_REF int remove (const OsclAny *input)
- void construct (Oscl_Opaque_Type_Compare *ot, Oscl_Vector_Base *vec)

7.175.1 Detailed Description

[OsclPriorityQueueBase](#) is a non-templatized base class for [OsclPriorityQueue](#). The purpose of this base class is to avoid large inline routines in the [OsclPriorityQueue](#) implementation. This class is not intended for direct instantiation except by [OsclPriorityQueue](#).

7.175.2 Constructor & Destructor Documentation

7.175.2.1 virtual OsclPriorityQueueBase::~OsclPriorityQueueBase () [inline, protected, virtual]

7.175.3 Member Function Documentation

7.175.3.1 void OsclPriorityQueueBase::construct (Oscl_Opaque_Type_Compare * ot, Oscl_Vector_Base * vec) [inline, protected]

Referenced by [OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclTimerCompare >::OsclPriorityQueue\(\)](#).

7.175.3.2 OSCL_IMPORT_REF OsclAny* OsclPriorityQueueBase::find_heap (const OsclAny * input, OsclAny * first, OsclAny * last) [protected]

7.175.3.3 OSCL_IMPORT_REF void OsclPriorityQueueBase::pop_heap (OsclAny * first, OsclAny * last) [protected]

7.175.3.4 OSCL_IMPORT_REF void OsclPriorityQueueBase::push_heap (OsclAny * first, OsclAny * last) [protected]

7.175.3.5 OSCL_IMPORT_REF int OsclPriorityQueueBase::remove (const OsclAny * input) [protected]

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

- [oscl_priqueue.h](#)

7.176 OsclProcStatus Class Reference

```
#include <oscl_procstatus.h>
```

Public Types

- enum eOsclProcError {
 SUCCESS_ERROR = 0, OTHER_ERROR, TOO_MANY_THREADS_ERROR, BAD_THREADID_ADDR_ERROR,
 MAX_THRDS_REACHED_ERROR, INVALID_THREAD_ID_ERROR, NOT_ENOUGH_MEMORY_ERROR, OUTOFMEMORY_ERROR,
 NOT_ENOUGH_RESOURCES_ERROR, THREAD_1_INACTIVE_ERROR, ALREADY_SUSPENDED_ERROR, NOT_SUSPENDED_ERROR,
 INVALID_THREAD_ERROR, INVALID_PARAM_ERROR, NO_PERMISSION_ERROR, INVALID_PRIORITY_ERROR,
 PSHARED_NOT_ZERO_ERROR, EXCEED_MAX_COUNT_VARIABLE_ERROR, THREAD_BLOCK_ERROR, EXCEED_MAX_SEM_COUNT_ERROR,
 INVALID_HANDLE_ERROR, INVALID_OPERATION_ERROR, INVALID_FUNCTION_ERROR, INVALID_ACCESS_ERROR,
 INVALID_ARGUMENT_ERROR, SYSTEM_RESOURCES_UNAVAILABLE_ERROR, INVALID_POINTER_ERROR, RELOCK_MUTEX_ERROR,
 THREAD_NOT_OWN_MUTEX_ERROR, MUTEX_LOCKED_ERROR, WAIT_ABANDONED_ERROR, WAIT_TIMEOUT_ERROR,
 SEM_NOT_SIGNALED_ERROR, PSHARED_ATTRIBUTE_SETTING_ERROR, NOT_IMPLEMENTED }
 }

7.176.1 Detailed Description

Class [OsclProcStatus](#)

7.176.2 Member Enumeration Documentation

7.176.2.1 enum OsclProcStatus::eOsclProcError

List of enums which contain error codes

Enumerator:

SUCCESS_ERROR
OTHER_ERROR
TOO_MANY_THREADS_ERROR
BAD_THREADID_ADDR_ERROR
MAX_THRDS_REACHED_ERROR
INVALID_THREAD_ID_ERROR
NOT_ENOUGH_MEMORY_ERROR
OUTOFMEMORY_ERROR

*NOT_ENOUGH_RESOURCES_ERROR
THREAD_1_INACTIVE_ERROR
ALREADY_SUSPENDED_ERROR
NOT_SUSPENDED_ERROR
INVALID_THREAD_ERROR
INVALID_PARAM_ERROR
NO_PERMISSION_ERROR
INVALID_PRIORITY_ERROR
PSHARED_NOT_ZERO_ERROR
EXCEED_MAX_COUNT_VARIABLE_ERROR
THREAD_BLOCK_ERROR
EXCEED_MAX_SEM_COUNT_ERROR
INVALID_HANDLE_ERROR
INVALID_OPERATION_ERROR
INVALID_FUNCTION_ERROR
INVALID_ACCESS_ERROR
INVALID_ARGUMENT_ERROR
SYSTEM_RESOURCES_UNAVAILABLE_ERROR
INVALID_POINTER_ERROR
RELOCK_MUTEX_ERROR
THREAD_NOT_OWN_MUTEX_ERROR
MUTEX_LOCKED_ERROR
WAIT_ABANDONED_ERROR
WAIT_TIMEOUT_ERROR
SEM_NOT_SIGNALLED_ERROR
PSHARED_ATTRIBUTE_SETTING_ERROR
NOT_IMPLEMENTED*

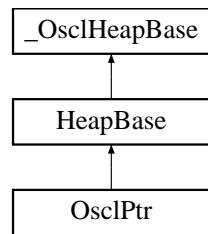
The documentation for this class was generated from the following file:

- [oscl_procstatus.h](#)

7.177 OsclPtr Class Reference

```
#include <oscl_file_async_read.h>
```

Inheritance diagram for OsclPtr:



Public Member Functions

- [OsclPtr \(uint8 *ptr, int32 &len, int32 max\)](#)
- [OsclPtr \(const OsclPtr &d\)](#)
- [uint8 * Ptr \(\)](#)
- [void SetLength \(int32 l\)](#)
- [int32 Length \(\)](#)
- [void Zero \(\)](#)
- [void Set \(OsclPtr &v\)](#)
- [void Set \(uint8 *ptr, int32 len, int32 max\)](#)
- [void Append \(OsclPtrC &v\)](#)

7.177.1 Constructor & Destructor Documentation

7.177.1.1 OsclPtr::OsclPtr (uint8 *ptr, int32 &len, int32 max) [inline]

7.177.1.2 OsclPtr::OsclPtr (const OsclPtr &d) [inline]

7.177.2 Member Function Documentation

7.177.2.1 void OsclPtr::Append (OsclPtrC &v) [inline]

References OsclPtrC::Length(), OSCL_ASSERT, oscl_memmove(), and OsclPtrC::Ptr().

7.177.2.2 int32 OsclPtr::Length () [inline]

7.177.2.3 uint8* OsclPtr::Ptr () [inline]

7.177.2.4 void OsclPtr::Set (uint8 *ptr, int32 len, int32 max) [inline]

7.177.2.5 void OsclPtr::Set (OsclPtr &v) [inline]

7.177.2.6 void OsclPtr::SetLength (int32 l) [inline]

References OSCL_ASSERT.

7.177.2.7 void OsclPtr::Zero () [inline]

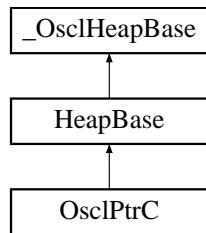
The documentation for this class was generated from the following file:

- [oscl_file_async_read.h](#)

7.178 OsclPtrC Class Reference

```
#include <oscl_file_async_read.h>
```

Inheritance diagram for OsclPtrC:



Public Member Functions

- [OsclPtrC](#) (const uint8 *ptr, int32 len, int32 max)
- [OsclPtrC](#) (const [OsclPtrC](#) &d)
- const uint8 * [Ptr](#) ()
- void [SetLength](#) (int32 l)
- int32 [Length](#) ()
- void [Zero](#) ()
- void [Set](#) ([OsclPtrC](#) *v)
- void [Set](#) (uint8 *ptr, int32 len, int32 max)
- [OsclPtrC Right](#) (int32 size)
- [OsclPtrC Left](#) (int32 size)

7.178.1 Constructor & Destructor Documentation

7.178.1.1 [OsclPtrC::OsclPtrC](#) (const uint8 *ptr, int32 len, int32 max) [inline]

7.178.1.2 [OsclPtrC::OsclPtrC](#) (const OsclPtrC & d) [inline]

7.178.2 Member Function Documentation

7.178.2.1 [OsclPtrC OsclPtrC::Left](#) (int32 size) [inline]

References OSCL_ASSERT.

7.178.2.2 [int32 OsclPtrC::Length](#) () [inline]

Referenced by [OsclPtr::Append\(\)](#).

7.178.2.3 [const uint8* OsclPtrC::Ptr](#) () [inline]

Referenced by [OsclPtr::Append\(\)](#).

7.178.2.4 OsclPtrC OsclPtrC::Right (int32 *size*) [inline]

References OSCL_ASSERT.

7.178.2.5 void OsclPtrC::Set (uint8 * *ptr*, int32 *len*, int32 *max*) [inline]**7.178.2.6 void OsclPtrC::Set (OsclPtrC * *v*) [inline]****7.178.2.7 void OsclPtrC::SetLength (int32 *l*) [inline]**

References OSCL_ASSERT.

7.178.2.8 void OsclPtrC::Zero () [inline]

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

- [oscl_file_async_read.h](#)

7.179 OsclRand Class Reference

```
#include <oscl_rand.h>
```

Public Member Functions

- OSCL_COND_IMPORT_REF void [Seed](#) (int32 seed)
- OSCL_COND_IMPORT_REF int32 [Rand](#) ()

7.179.1 Member Function Documentation

7.179.1.1 OSCL_COND_IMPORT_REF int32 OsclRand::Rand ()

7.179.1.2 OSCL_COND_IMPORT_REF void OsclRand::Seed (int32 *seed*)

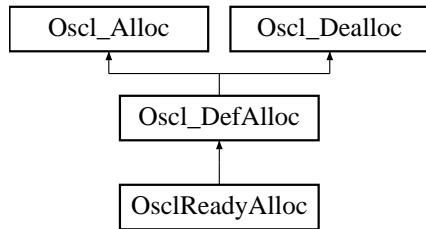
The documentation for this class was generated from the following file:

- [oscl_rand.h](#)

7.180 OsclReadyAlloc Class Reference

```
#include <oscl_scheduler_readyq.h>
```

Inheritance diagram for OsclReadyAlloc:



Public Member Functions

- [OsclAny * allocate \(const uint32 size\)](#)
- [OsclAny * allocate_fl \(const uint32 size, const char *file_name, const int line_num\)](#)
- [void deallocate \(OsclAny *p\)](#)

7.180.1 Member Function Documentation

7.180.1.1 [OsclAny* OsclReadyAlloc::allocate \(const uint32 size\) \[virtual\]](#)

Implements [Oscl_DefAlloc](#).

7.180.1.2 [OsclAny* OsclReadyAlloc::allocate_fl \(const uint32 size, const char *file_name, const int line_num\) \[virtual\]](#)

Reimplemented from [Oscl_DefAlloc](#).

7.180.1.3 [void OsclReadyAlloc::deallocate \(OsclAny *p\) \[virtual\]](#)

Implements [Oscl_DefAlloc](#).

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

- [oscl_scheduler_readyq.h](#)

7.181 OsclReadyCompare Class Reference

```
#include <oscl_scheduler_readyq.h>
```

Static Public Member Functions

- static int `compare (TOsclReady &a, TOsclReady &b)`

7.181.1 Member Function Documentation

7.181.1.1 static int OsclReadyCompare::compare (TOsclReady & *a*, TOsclReady & *b*) [static]

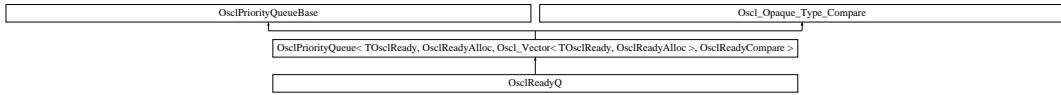
The documentation for this class was generated from the following file:

- `oscl_scheduler_readyq.h`

7.182 OsclReadyQ Class Reference

```
#include <oscl_scheduler_readyq.h>
```

Inheritance diagram for OsclReadyQ:



Public Member Functions

- void [Construct](#) (int)
- void [ThreadLogon](#) ()
- void [ThreadLogoff](#) ()
- void [Remove](#) (TOsclReady)
- bool [IsIn](#) (TOsclReady)
- uint32 [Depth](#) ()
- TOsclReady [PopTop](#) ()
- TOsclReady [Top](#) ()
- TOsclReady [WaitAndPopTop](#) ()
- TOsclReady [WaitAndPopTop](#) (uint32)
- int32 [PendComplete](#) (PVActiveBase *pvbase, int32 aReason)
- int32 [WaitForRequestComplete](#) (PVActiveBase *)
- void [RegisterForCallback](#) (OsclSchedulerObserver *aCallback, OsclAny *aCallbackContext)
- void [TimerCallback](#) (uint32 aDelayMicrosec)
- OsclSchedulerObserver * [Callback](#) ()

7.182.1 Member Function Documentation

7.182.1.1 OsclSchedulerObserver* OsclReadyQ::Callback () [inline]

7.182.1.2 void OsclReadyQ::Construct (int)

7.182.1.3 uint32 OsclReadyQ::Depth () [inline]

References OsclPriorityQueue< TOsclReady, OsclReadyAlloc, Oscl_Vector< TOsclReady, OsclReadyAlloc >, OsclReadyCompare >::size().

- 7.182.1.4 `bool OsclReadyQ::IsIn (TOsclReady)`
- 7.182.1.5 `int32 OsclReadyQ::PendComplete (PVActiveBase * pibase, int32 aReason)`
- 7.182.1.6 `TOsclReady OsclReadyQ::PopTop ()`
- 7.182.1.7 `void OsclReadyQ::RegisterForCallback (OsclSchedulerObserver * aCallback, OsclAny * aCallbackContext)`
- 7.182.1.8 `void OsclReadyQ::Remove (TOsclReady)`
- 7.182.1.9 `void OsclReadyQ::ThreadLogoff ()`
- 7.182.1.10 `void OsclReadyQ::ThreadLogon ()`
- 7.182.1.11 `void OsclReadyQ::TimerCallback (uint32 aDelayMicrosec)`
- 7.182.1.12 `TOsclReady OsclReadyQ::Top ()`
- 7.182.1.13 `TOsclReady OsclReadyQ::WaitAndPopTop (uint32)`
- 7.182.1.14 `TOsclReady OsclReadyQ::WaitAndPopTop ()`
- 7.182.1.15 `int32 OsclReadyQ::WaitForRequestComplete (PVActiveBase *)`

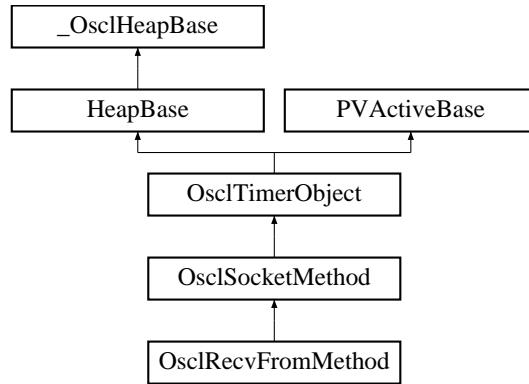
The documentation for this class was generated from the following file:

- [oscl_scheduler_readyq.h](#)

7.183 OsclRecvFromMethod Class Reference

```
#include <oscl_socket_recv_from.h>
```

Inheritance diagram for OsclRecvFromMethod:



Public Member Functions

- [`~OsclRecvFromMethod \(\)`](#)
- [`TPVSocketEvent RecvFrom \(uint8 *&aPtr, uint32 aMaxLen, OsclNetworkAddress &aAddress, int32 aTimeout, uint32 aMultiMax, Oscl_Vector< uint32, OsclMemAllocator > *aPacketLen, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aPacketSource\)`](#)
- [`uint8 * GetRecvData \(int32 *aLength\)`](#)
- [`OsclRecvFromRequest * RecvFromRequest \(\)`](#)

Static Public Member Functions

- static [`OsclRecvFromMethod * NewL \(OsclIPSocketI &c\)`](#)

7.183.1 Constructor & Destructor Documentation

7.183.1.1 OsclRecvFromMethod::~OsclRecvFromMethod ()

7.183.2 Member Function Documentation

7.183.2.1 uint8* OsclRecvFromMethod::GetRecvData (int32 * aLength)

Referenced by OsclUDPSocketI::GetRecvData().

**7.183.2.2 static OsclRecvFromMethod* OsclRecvFromMethod::NewL (OsclIPSocketI & c)
[static]**

**7.183.2.3 TPVSocketEvent OsclRecvFromMethod::RecvFrom (uint8 *& aPtr, uint32 aMaxLen,
OsclNetworkAddress & aAddress, int32 aTimeout, uint32 aMultiMax, Oscl_Vector<
uint32, OsclMemAllocator > * aPacketLen, Oscl_Vector< OsclNetworkAddress,
OsclMemAllocator > * aPacketSource)**

Referenced by OsclUDPSocketI::RecvFrom().

7.183.2.4 OsclRecvFromRequest* OsclRecvFromMethod::RecvFromRequest () [inline]

References OsclSocketMethod::iSocketRequestAO.

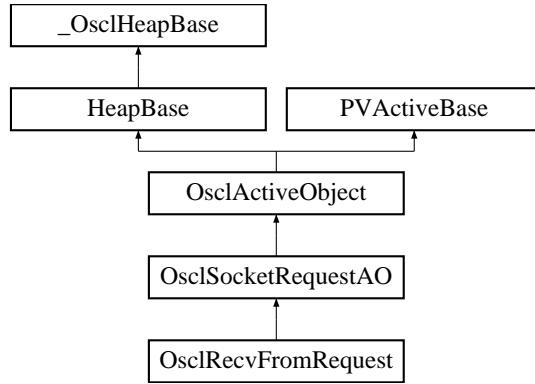
The documentation for this class was generated from the following file:

- [oscl_socket_recv_from.h](#)

7.184 OsclRecvFromRequest Class Reference

```
#include <oscl_socket_recv_from.h>
```

Inheritance diagram for OsclRecvFromRequest:



Public Member Functions

- `uint8 * GetRecvData (int32 *aLength)`
- `OsclRecvFromRequest (OsclSocketMethod &c)`
- `void RecvFrom (uint8 *&aPtr, uint32 aMaxLen, OsclNetworkAddress &aAddress, uint32 aMultiMax, Oscl_Vector< uint32, OsclMemAllocator > *aPacketLen, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aPacketSource)`
- `void Success ()`

7.184.1 Detailed Description

This is the AO that interacts with the socket server

7.184.2 Constructor & Destructor Documentation

7.184.2.1 OsclRecvFromRequest::OsclRecvFromRequest (OsclSocketMethod & c) [inline]

7.184.3 Member Function Documentation

7.184.3.1 uint8* OsclRecvFromRequest::GetRecvData (int32 * aLength)

7.184.3.2 void OsclRecvFromRequest::RecvFrom (uint8 *& aPtr, uint32 aMaxLen, OsclNetworkAddress & aAddress, uint32 aMultiMax, Oscl_Vector< uint32, OsclMemAllocator > * aPacketLen, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * aPacketSource)

7.184.3.3 void OsclRecvFromRequest::Success () [virtual]

Reimplemented from [OsclSocketRequestAO](#).

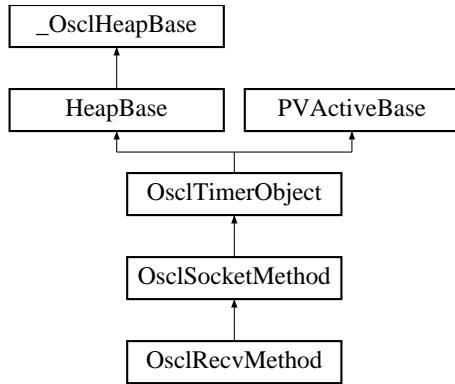
The documentation for this class was generated from the following file:

- [oscl_socket_recv_from.h](#)

7.185 OsclRecvMethod Class Reference

```
#include <oscl_socket_recv.h>
```

Inheritance diagram for OsclRecvMethod:



Public Member Functions

- `~OsclRecvMethod ()`
- `TPVSocketEvent Recv (uint8 *&aPtr, uint32 aMaxLen, int32 aTimeout)`
- `uint8 * GetRecvData (int32 *aLength)`
- `OsclRecvRequest * RecvRequest ()`

Static Public Member Functions

- static `OsclRecvMethod * NewL (OsclIPSocketI &c)`

7.185.1 Constructor & Destructor Documentation

7.185.1.1 OsclRecvMethod::~OsclRecvMethod ()

7.185.2 Member Function Documentation

7.185.2.1 uint8* OsclRecvMethod::GetRecvData (int32 * aLength)

Referenced by `OsclTCPSocketI::GetRecvData()`.

7.185.2.2 static OsclRecvMethod* OsclRecvMethod::NewL (OsclIPSocketI & c) [static]

7.185.2.3 TPVSocketEvent OsclRecvMethod::Recv (uint8 *& aPtr, uint32 aMaxLen, int32 aTimeout)

Referenced by `OsclTCPSocketI::Recv()`.

7.185.2.4 OsclRecvRequest* OsclRecvMethod::RecvRequest () [inline]

References OsclSocketMethod::iSocketRequestAO.

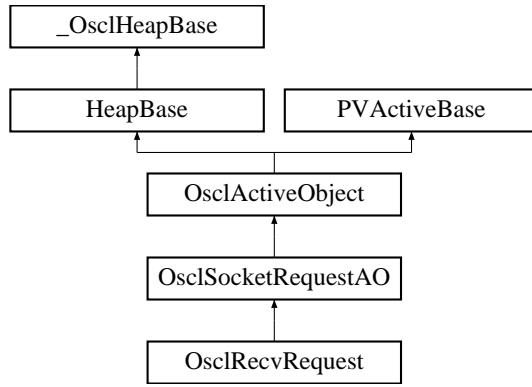
The documentation for this class was generated from the following file:

- [oscl_socket_recv.h](#)

7.186 OsclRecvRequest Class Reference

```
#include <oscl_socket_recv.h>
```

Inheritance diagram for OsclRecvRequest:



Public Member Functions

- `uint8 * GetRecvData (int32 *aLength)`
- `OsclRecvRequest (OsclSocketMethod &c)`
- `void Recv (uint8 *&aPtr, uint32 aMaxLen)`
- `void Success ()`

7.186.1 Detailed Description

This is the AO that interacts with the socket server

7.186.2 Constructor & Destructor Documentation

7.186.2.1 OsclRecvRequest::OsclRecvRequest (OsclSocketMethod & c) [inline]

7.186.3 Member Function Documentation

7.186.3.1 `uint8* OsclRecvRequest::GetRecvData (int32 * aLength)`

7.186.3.2 `void OsclRecvRequest::Recv (uint8 *& aPtr, uint32 aMaxLen)`

7.186.3.3 `void OsclRecvRequest::Success () [virtual]`

Reimplemented from [OsclSocketRequestAO](#).

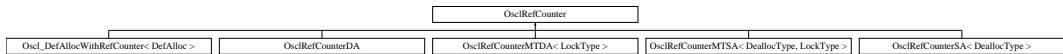
The documentation for this class was generated from the following file:

- [oscl_socket_recv.h](#)

7.187 OsclRefCounter Class Reference

```
#include <oscl_refcounter.h>
```

Inheritance diagram for OsclRefCounter:



Public Member Functions

- virtual void `addRef ()=0`
- virtual void `removeRef ()=0`
- virtual uint32 `getCount ()=0`
- virtual `~OsclRefCounter ()`

7.187.1 Detailed Description

Interface class for [OsclRefCounter](#) implementations

7.187.2 Constructor & Destructor Documentation

7.187.2.1 virtual OsclRefCounter::~OsclRefCounter () [inline, virtual]

7.187.3 Member Function Documentation

7.187.3.1 virtual void OsclRefCounter::addRef () [pure virtual]

Add to the reference count

Implemented in [OsclRefCounterDA](#), [OsclRefCounterSA< DeallocType >](#), [OsclRefCounterMTDA< LockType >](#), [OsclRefCounterMTSA< DeallocType, LockType >](#), and [Oscl_DefAllocWithRefCounter< DefAlloc >](#).

Referenced by [OsclSharedPtr< TheClass >::Bind\(\)](#), [OsclRefCounterMemFrag::OsclRefCounterMemFrag\(\)](#), and [OsclSharedPtr< TheClass >::OsclSharedPtr\(\)](#).

7.187.3.2 virtual uint32 OsclRefCounter::getCount () [pure virtual]

Gets the current number of references

Implemented in [OsclRefCounterDA](#), [OsclRefCounterSA< DeallocType >](#), [OsclRefCounterMTDA< LockType >](#), [OsclRefCounterMTSA< DeallocType, LockType >](#), and [Oscl_DefAllocWithRefCounter< DefAlloc >](#).

Referenced by [OsclSharedPtr< TheClass >::get_count\(\)](#).

7.187.3.3 virtual void OsclRefCounter::removeRef () [pure virtual]

Delete from reference count

Implemented in [OsclRefCounterDA](#), [OsclRefCounterSA< DeallocType >](#), [OsclRefCounterMTDA< LockType >](#), [OsclRefCounterMTSA< DeallocType, LockType >](#), and [Oscl_DefAllocWithRefCounter< DefAlloc >](#).

Referenced by `OsclSharedPtr< TheClass >::Bind()`, and `OsclSharedPtr< TheClass >::~OsclSharedPtr()`.

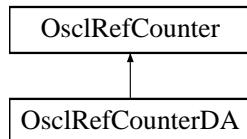
The documentation for this class was generated from the following file:

- [oscl_refcounter.h](#)

7.188 OsclRefCounterDA Class Reference

```
#include <oscl_refcounter.h>
```

Inheritance diagram for OsclRefCounterDA:



Public Member Functions

- [OsclRefCounterDA \(OsclAny *p, OsclDestructDealloc *dealloc\)](#)
- virtual [~OsclRefCounterDA \(\)](#)
- void [addRef \(\)](#)
- void [removeRef \(\)](#)
- uint32 [getCount \(\)](#)

7.188.1 Detailed Description

Implementation of an [OsclRefCounter](#) that uses a dynamically created deallocator.

7.188.2 Constructor & Destructor Documentation

7.188.2.1 OsclRefCounterDA::OsclRefCounterDA (OsclAny * *p*, OsclDestructDealloc * *dealloc*) [inline]

Constructor Takes a pointer to the buffer to track, and a pointer to the deallocator object which will be used to delete the buffer.

When the reference count reaches zero, the buffer will be deleted by the deallocator. Also, the [OsclRefCounter](#) object (this) will self-destruct when the reference count is zero. In some cases the [OsclRefCounter](#) object will be part of the buffer being deleted. For such cases, the object pointer must be equal to the buffer pointer given at construction. If the object is not part of the buffer being deleted, it will self-destruct with a call to `delete()`.

Parameters

p pointer to the buffer to track

dealloc pointer to the deallocator to use when deleting the buffer

References NULL, and OSCL_ASSERT.

7.188.2.2 virtual OsclRefCounterDA::~OsclRefCounterDA () [inline, virtual]

Destructor empty

7.188.3 Member Function Documentation

7.188.3.1 void OsclRefCounterDA::addRef () [inline, virtual]

Add to the reference count

Implements [OsclRefCounter](#).

7.188.3.2 uint32 OsclRefCounterDA::getCount () [inline, virtual]

Gets the current number of references

Implements [OsclRefCounter](#).

7.188.3.3 void OsclRefCounterDA::removeRef () [inline, virtual]

Remove from the reference count

Implements [OsclRefCounter](#).

References OsclDestructDealloc::destruct_and_dealloc().

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

- [oscl_refcounter.h](#)

7.189 OsclRefCounterMemFrag Class Reference

```
#include <oscl_refcounter_memfrag.h>
```

Public Member Functions

- `OsclRefCounterMemFrag (OsclMemoryFragment &m, OsclRefCounter *r, uint32 in_capacity)`
- `OsclRefCounterMemFrag (const OsclRefCounterMemFrag &x)`
- `OsclRefCounterMemFrag ()`
- `OsclRefCounterMemFrag & operator= (const OsclRefCounterMemFrag &x)`
- `~OsclRefCounterMemFrag ()`
- `OsclRefCounter * getRefCounter ()`
- `OsclMemoryFragment & getMemFrag ()`
- `OsclAny * getMemFragPtr ()`
- `uint32 getMemFragSize ()`
- `uint32 getCapacity ()`
- `uint32 getCount ()`

7.189.1 Detailed Description

Class to contain a memory fragment with it's associated reference counter.

7.189.2 Constructor & Destructor Documentation

7.189.2.1 OsclRefCounterMemFrag::OsclRefCounterMemFrag (OsclMemoryFragment & m, OsclRefCounter * r, uint32 in_capacity) [inline]

Constructor. A valid memory fragment and reference counter are required as input. The memory fragment structure will be copied locally.

Parameters

- `m` reference to memory fragment
- `r` pointer to the reference counter associated with the memory fragment.

7.189.2.2 OsclRefCounterMemFrag::OsclRefCounterMemFrag (const OsclRefCounterMemFrag & x) [inline]

Copy constructor.

7.189.2.3 OsclRefCounterMemFrag::OsclRefCounterMemFrag () [inline]

Default constructor.

References `OsclRefCounter::addRef()`.

7.189.2.4 OsclRefCounterMemFrag::~OsclRefCounterMemFrag () [inline]

Destructor. Removes this object's reference from the reference counter. The reference counter will not be deleted. The reference counter is designed to self-delete when it's reference count reaches 0.

7.189.3 Member Function Documentation**7.189.3.1 uint32 OsclRefCounterMemFrag::getCapacity () [inline]**

Returns the capacity of the memory fragment

Returns**7.189.3.2 uint32 OsclRefCounterMemFrag::getCount () [inline]**

Returns the reference counter's current count.

7.189.3.3 OsclMemoryFragment& OsclRefCounterMemFrag::getMemFrag () [inline]

Returns a reference to the contained memory fragment structure.

7.189.3.4 OsclAny* OsclRefCounterMemFrag::getMemFragPtr () [inline]

Returns a pointer to the memory fragment data.

7.189.3.5 uint32 OsclRefCounterMemFrag::getMemFragSize () [inline]

Returns the size of the memory fragment data which equals its filled size.

Returns**7.189.3.6 OsclRefCounter* OsclRefCounterMemFrag::getRefCounter () [inline]**

Returns a pointer to the contained reference counter object

7.189.3.7 OsclRefCounterMemFrag& OsclRefCounterMemFrag::operator= (const OsclRefCounterMemFrag & x) [inline]

Assignment Operator

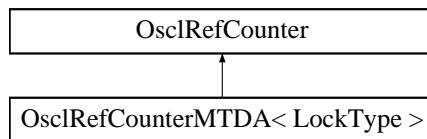
The documentation for this class was generated from the following file:

- [oscl_refcounter_memfrag.h](#)

7.190 OsclRefCounterMTDA< LockType > Class Template Reference

```
#include <oscl_refcounter.h>
```

Inheritance diagram for OsclRefCounterMTDA< LockType >:



Public Member Functions

- [OsclRefCounterMTDA \(OsclAny *p, OsclDestructDealloc *dealloc\)](#)
- virtual [~OsclRefCounterMTDA \(\)](#)
- void [addRef \(\)](#)
- void [removeRef \(\)](#)
- uint32 [getCount \(\)](#)

7.190.1 Detailed Description

template<class LockType> class OsclRefCounterMTDA< LockType >

Implementation of [OsclRefCounterDA](#) for multi-threaded use. A templated lock class must be specified.

7.190.2 Constructor & Destructor Documentation

7.190.2.1 template<class LockType> OsclRefCounterMTDA< LockType >::OsclRefCounterMTDA (OsclAny * *p*, OsclDestructDealloc * *dealloc*) [inline]

Constructor Takes a pointer to the buffer to track, and a pointer to the deallocator object which will be used to delete the buffer.

When the reference count reaches zero, the buffer will be deleted by the deallocator. Also, the [OsclRefCounter](#) object (this) will self-destruct when the reference count is zero. In some cases the [OsclRefCounter](#) object will be part of the buffer being deleted. For such cases, the object pointer must be equal to the buffer pointer given at construction. If the object is not part of the buffer being deleted, it will self-destruct with a call to `delete()`.

Parameters

p pointer to the buffer to track

dealloc pointer to the deallocator to use when deleting the buffer

References NULL, and OSCL_ASSERT.

7.190.2.2 template<class LockType> virtual OsclRefCounterMTDA< LockType >::~OsclRefCounterMTDA () [inline, virtual]

Destructor empty

7.190.3 Member Function Documentation

7.190.3.1 template<class LockType> void OsclRefCounterMTDA< LockType >::addRef () [inline, virtual]

Add to the reference count

Implements [OsclRefCounter](#).

7.190.3.2 template<class LockType> uint32 OsclRefCounterMTDA< LockType >::getCount () [inline, virtual]

Gets the current number of references

Implements [OsclRefCounter](#).

7.190.3.3 template<class LockType> void OsclRefCounterMTDA< LockType >::removeRef () [inline, virtual]

Remove from the reference count

Implements [OsclRefCounter](#).

References [OsclDestructDealloc::destruct_and_dealloc\(\)](#).

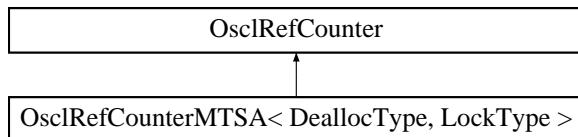
The documentation for this class was generated from the following file:

- [oscl_refcounter.h](#)

7.191 OsclRefCounterMTSA< DeallocType, LockType > Class Template Reference

```
#include <oscl_refcounter.h>
```

Inheritance diagram for OsclRefCounterMTSA< DeallocType, LockType >:



Public Member Functions

- [OsclRefCounterMTSA \(OsclAny *p\)](#)
- virtual [~OsclRefCounterMTSA \(\)](#)
- void [addRef \(\)](#)
- void [removeRef \(\)](#)
- uint32 [getCount \(\)](#)

7.191.1 Detailed Description

`template<class DeallocType, class LockType> class OsclRefCounterMTSA< DeallocType, LockType >`

Implementation of [OsclRefCounterSA](#) for multi-threaded use. A templated lock class must be specified.

7.191.2 Constructor & Destructor Documentation

7.191.2.1 `template<class DeallocType, class LockType> OsclRefCounterMTSA< DeallocType, LockType >::OsclRefCounterMTSA (OsclAny * p) [inline]`

Constructor Takes a pointer to the buffer to track.

When the reference count reaches zero, the buffer will be deleted by the deallocator. Also, the [OsclRefCounter](#) object (this) will self-destruct when the reference count is zero. In some cases the [OsclRefCounter](#) object will be part of the buffer being deleted. For such cases, the object pointer must be equal to the buffer pointer given at construction. If the object is not part of the buffer being deleted, it will self-destruct with a call to `delete()`.

Parameters

p pointer to the buffer to track

References NULL, and OSCL_ASSERT.

7.191.2.2 `template<class DeallocType, class LockType> virtual OsclRefCounterMTSA< DeallocType, LockType >::~OsclRefCounterMTSA () [inline, virtual]`

Destructor empty

7.191.3 Member Function Documentation

7.191.3.1 template<class DeallocType, class LockType> void OsclRefCounterMTSA<DeallocType, LockType >::addRef () [inline, virtual]

Add to the reference count

Implements [OsclRefCounter](#).

7.191.3.2 template<class DeallocType, class LockType> uint32 OsclRefCounterMTSA<DeallocType, LockType >::getCount () [inline, virtual]

Gets the current number of references

Implements [OsclRefCounter](#).

7.191.3.3 template<class DeallocType, class LockType> void OsclRefCounterMTSA<DeallocType, LockType >::removeRef () [inline, virtual]

Remove from the reference count

Implements [OsclRefCounter](#).

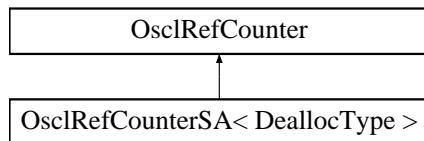
The documentation for this class was generated from the following file:

- [oscl_refcounter.h](#)

7.192 OsclRefCounterSA< DeallocType > Class Template Reference

```
#include <oscl_refcounter.h>
```

Inheritance diagram for OsclRefCounterSA< DeallocType >:



Public Member Functions

- [OsclRefCounterSA \(OsclAny *p\)](#)
- virtual [~OsclRefCounterSA \(\)](#)
- void [addRef \(\)](#)
- void [removeRef \(\)](#)
- uint32 [getCount \(\)](#)

7.192.1 Detailed Description

template<class DeallocType> class OsclRefCounterSA< DeallocType >

Implementation of an [OsclRefCounter](#) that uses a statically created deallocator.

7.192.2 Constructor & Destructor Documentation

7.192.2.1 template<class DeallocType> OsclRefCounterSA< DeallocType >::OsclRefCounterSA (OsclAny **p*) [inline]

Constructor Takes a pointer to the buffer to track.

When the reference count reaches zero, the buffer will be deleted by the deallocator. Also, the [OsclRefCounter](#) object (this) will self-destruct when the reference count is zero. In some cases the [OsclRefCounter](#) object will be part of the buffer being deleted. For such cases, the object pointer must be equal to the buffer pointer given at construction. If the object is not part of the buffer being deleted, it will self-destruct with a call to [delete\(\)](#).

Parameters

p pointer to the buffer to track

References NULL, and OSCL_ASSERT.

7.192.2.2 template<class DeallocType> virtual OsclRefCounterSA< DeallocType >::~OsclRefCounterSA () [inline, virtual]

Destructor empty

7.192.3 Member Function Documentation

**7.192.3.1 template<class DeallocType> void OsclRefCounterSA< DeallocType >::addRef ()
[inline, virtual]**

Add to the reference count

Implements [OsclRefCounter](#).

**7.192.3.2 template<class DeallocType> uint32 OsclRefCounterSA< DeallocType >::getCount ()
[inline, virtual]**

Gets the current number of references

Implements [OsclRefCounter](#).

**7.192.3.3 template<class DeallocType> void OsclRefCounterSA< DeallocType >::removeRef ()
[inline, virtual]**

Remove from the reference count

Implements [OsclRefCounter](#).

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

- [oscl_refcounter.h](#)

7.193 OsclRegistryAccessClient Class Reference

```
#include <oscl_registry_access_client.h>
```

Public Member Functions

- OSCL_IMPORT_REF OsclRegistryAccessClient ()
- OSCL_IMPORT_REF ~OsclRegistryAccessClient ()
- OSCL_IMPORT_REF int32 Connect ()
- OSCL_IMPORT_REF OsclComponentFactory GetFactory (OSCL_String &aComponent)
- OSCL_IMPORT_REF void GetFactories (OSCL_String &aRegistry, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &aVec)
- OSCL_IMPORT_REF void Close ()

7.193.1 Constructor & Destructor Documentation

7.193.1.1 OSCL_IMPORT_REF OsclRegistryAccessClient::OsclRegistryAccessClient ()

7.193.1.2 OSCL_IMPORT_REF OsclRegistryAccessClient::~OsclRegistryAccessClient ()

7.193.2 Member Function Documentation

7.193.2.1 OSCL_IMPORT_REF void OsclRegistryAccessClient::Close ()

Close and cleanup session.

7.193.2.2 OSCL_IMPORT_REF int32 OsclRegistryAccessClient::Connect ()

Create a session.

Returns

OsclErrNone on success.

7.193.2.3 OSCL_IMPORT_REF void OsclRegistryAccessClient::GetFactories (OSCL_String &*aRegistry*, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &*aVec*)

Get all factories for a given registry type.

Parameters

aRegistry,: registry MIME type

aVec,: output component factory + mimestring vector.

7.193.2.4 OSCL_IMPORT_REF OsclComponentFactory OsclRegistryAccessClient::GetFactory (OSCL_String &*aComponent*)

Lookup a factory by registry and component mime type.

Parameters

aComponent,: registry+component MIME type

Returns

Factory. Factory will be NULL if not found.

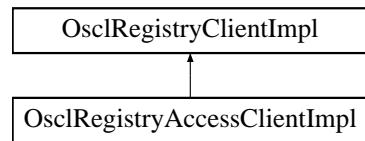
The documentation for this class was generated from the following file:

- [oscl_registry_access_client.h](#)

7.194 OsclRegistryAccessClientImpl Class Reference

```
#include <oscl_registry_client_impl.h>
```

Inheritance diagram for OsclRegistryAccessClientImpl:



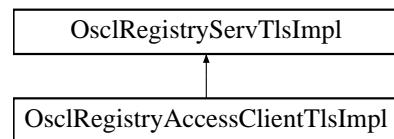
The documentation for this class was generated from the following file:

- [oscl_registry_client_impl.h](#)

7.195 OsclRegistryAccessClientTlsImpl Class Reference

```
#include <oscl_registry_client_impl.h>
```

Inheritance diagram for OsclRegistryAccessClientTlsImpl:



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

- [oscl_registry_client_impl.h](#)

7.196 OsclRegistryAccessElement Class Reference

```
#include <oscl_registry_types.h>
```

Data Fields

- [OsclComponentFactory iFactory](#)
- [OSCL_HeapString< OsclMemAllocator > iMimeType](#)

7.196.1 Detailed Description

A class used to access the registry data

7.196.2 Field Documentation

7.196.2.1 OsclComponentFactory OsclRegistryAccessElement::iFactory

7.196.2.2 OSCL_HeapString<OsclMemAllocator> OsclRegistryAccessElement::iMimeType

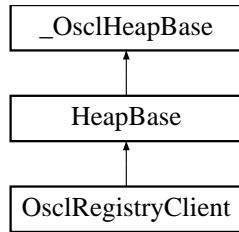
The documentation for this class was generated from the following file:

- [oscl_registry_types.h](#)

7.197 OsclRegistryClient Class Reference

```
#include <oscl_registry_client.h>
```

Inheritance diagram for OsclRegistryClient:



Public Member Functions

- OSCL_IMPORT_REF OsclRegistryClient ()
- OSCL_IMPORT_REF ~OsclRegistryClient ()
- OSCL_IMPORT_REF int32 Connect (bool aPerThread=false)
- OSCL_IMPORT_REF int32 Register (OSCL_String &aComponentID, OsclComponentFactory aFactory)
- OSCL_IMPORT_REF int32 UnRegister (OSCL_String &aComponentID)
- OSCL_IMPORT_REF void Close ()

7.197.1 Constructor & Destructor Documentation

7.197.1.1 OSCL_IMPORT_REF OsclRegistryClient::OsclRegistryClient ()

7.197.1.2 OSCL_IMPORT_REF OsclRegistryClient::~OsclRegistryClient ()

7.197.2 Member Function Documentation

7.197.2.1 OSCL_IMPORT_REF void OsclRegistryClient::Close ()

Close and cleanup. All components registered in this session are automatically unregistered.

7.197.2.2 OSCL_IMPORT_REF int32 OsclRegistryClient::Connect (bool *aPerThread = false*)

Create a session.

Parameters

aPerThread,: Select per-thread registry instead of global registry.

Returns

OsclErrNone on success.

7.197.2.3 OSCL_IMPORT_REF int32 OsclRegistryClient::Register (OSCL_String & *aComponentID*, OsclComponentFactory *aFactory*)

Register a component factory by registry ID and component ID.

Parameters

aComponentID,: registry + component mime-string.

aFactory,: factory function pointer.

aParam,: component Create param.

Returns

OsclErrNone on success.

7.197.2.4 OSCL_IMPORT_REF int32 OsclRegistryClient::UnRegister (OSCL_String & *aComponentID*)

Unregister a previously registered component.

Returns

OsclErrNone on success.

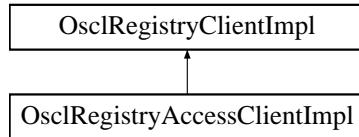
The documentation for this class was generated from the following file:

- [oscl_registry_client.h](#)

7.198 OsclRegistryClientImpl Class Reference

```
#include <oscl_registry_client_impl.h>
```

Inheritance diagram for OsclRegistryClientImpl:



Protected Member Functions

- int32 [Connect \(\)](#)
- void [Close \(\)](#)
- int32 [Register \(OSCL_String &, OsclComponentFactory\)](#)
- int32 [UnRegister \(OSCL_String &\)](#)
- [OsclComponentFactory GetFactory \(OSCL_String &\)](#)
- void [GetFactories \(OSCL_String &, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &\)](#)

Friends

- class [OsclRegistryClient](#)
- class [OsclRegistryAccessClient](#)

7.198.1 Member Function Documentation

7.198.1.1 void OsclRegistryClientImpl::Close (void) [inline, protected]

7.198.1.2 int32 OsclRegistryClientImpl::Connect () [inline, protected]

References OsclErrNotSupported.

7.198.1.3 void OsclRegistryClientImpl::GetFactories (OSCL_String &, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &) [inline, protected]

7.198.1.4 OsclComponentFactory OsclRegistryClientImpl::GetFactory (OSCL_String &) [inline, protected]

References NULL.

7.198.1.5 int32 OsclRegistryClientImpl::Register (OSCL_String &, OsclComponentFactory) [inline, protected]

References OsclErrNotSupported.

7.198.1.6 int32 OsclRegistryClientImpl::UnRegister (OSCL_String &) [inline, protected]

References OsclErrNotSupported.

7.198.2 Friends And Related Function Documentation**7.198.2.1 friend class OsclRegistryAccessClient [friend]****7.198.2.2 friend class OsclRegistryClient [friend]**

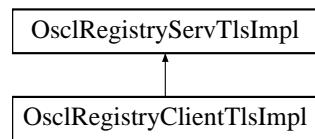
The documentation for this class was generated from the following file:

- [oscl_registry_client_impl.h](#)

7.199 OsclRegistryClientTlsImpl Class Reference

```
#include <oscl_registry_client_impl.h>
```

Inheritance diagram for OsclRegistryClientTlsImpl:



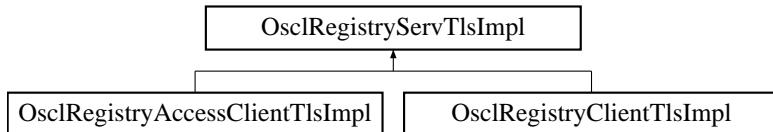
The documentation for this class was generated from the following file:

- [oscl_registry_client_impl.h](#)

7.200 OsclRegistryServTlsImpl Class Reference

```
#include <oscl_registry_serv_impl_tls.h>
```

Inheritance diagram for OsclRegistryServTlsImpl:



Protected Member Functions

- [OsclRegistryServTlsImpl \(\)](#)
- virtual [~OsclRegistryServTlsImpl \(\)](#)
- int32 [Connect \(\)](#)
- void [Close \(\)](#)
- int32 [Register \(OSCL_String &aComponentID, OsclComponentFactory aFactory\)](#)
- int32 [UnRegister \(OSCL_String &aComponentID\)](#)
- [OsclComponentFactory GetFactory \(OSCL_String &aComponent\)](#)
- void [GetFactories \(OSCL_String &aRegistry, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > &aVec\)](#)

Friends

- class [OsclRegistryClient](#)
- class [OsclRegistryAccessClient](#)

7.200.1 Constructor & Destructor Documentation

7.200.1.1 `OsclRegistryServTlsImpl::OsclRegistryServTlsImpl () [protected]`

7.200.1.2 `virtual OsclRegistryServTlsImpl::~OsclRegistryServTlsImpl () [protected, virtual]`

7.200.2 Member Function Documentation

7.200.2.1 `void OsclRegistryServTlsImpl::Close () [protected]`

7.200.2.2 `int32 OsclRegistryServTlsImpl::Connect () [protected]`

7.200.2.3 `void OsclRegistryServTlsImpl::GetFactories (OSCL_String & aRegistry, Oscl_Vector< OsclRegistryAccessElement, OsclMemAllocator > & aVec) [protected]`

7.200.2.4 `OsclComponentFactory OsclRegistryServTlsImpl::GetFactory (OSCL_String & aComponent) [protected]`

7.200.2.5 `int32 OsclRegistryServTlsImpl::Register (OSCL_String & aComponentID, OsclComponentFactory aFactory) [protected]`

7.200.2.6 `int32 OsclRegistryServTlsImpl::UnRegister (OSCL_String & aComponentID) [protected]`

7.200.3 Friends And Related Function Documentation

7.200.3.1 `friend class OsclRegistryAccessClient [friend]`

7.200.3.2 `friend class OsclRegistryClient [friend]`

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

- [oscl_registry_serv_impl_tls.h](#)

7.201 OsclScheduler Class Reference

```
#include <oscl_scheduler.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF void [Init](#) (const char *name, [Oscl_DefAlloc](#) *alloc=NULL, int nreserve=20)
- static OSCL_IMPORT_REF void [Cleanup](#) ()

7.201.1 Detailed Description

Per-thread scheduler initialization and cleanup.

7.201.2 Member Function Documentation

7.201.2.1 static OSCL_IMPORT_REF void OsclScheduler::[Cleanup](#) () [static]

This routine uninstalls and destroys Oscl scheduler for the calling thread.

7.201.2.2 static OSCL_IMPORT_REF void OsclScheduler::[Init](#) (const char * *name*, [Oscl_DefAlloc](#) * *alloc* = NULL, int *nreserve* = 20) [static]

This routine creates and installs a scheduler in the calling thread.

Parameters

- name*,: (input param) scheduler name.
alloc,: (input param) optional allocator to use for the internal implementation.
nreserve,: (input param) optional value for ready queue reserve size.

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

- [oscl_scheduler.h](#)

7.202 OsclSchedulerObserver Class Reference

```
#include <oscl_scheduler.h>
```

Public Member Functions

- virtual void [OsclSchedulerTimerCallback](#) ([OsclAny](#) *aContext, uint32 aDelayMsec)=0
- virtual void [OsclSchedulerReadyCallback](#) ([OsclAny](#) *aContext)=0
- virtual ~[OsclSchedulerObserver](#) ()

7.202.1 Detailed Description

[OsclSchedulerObserver](#) is an observer class for use when running scheduler in non-blocking mode. The scheduler observer can register for callbacks so it will be notified when it is necessary to run scheduler again. Note: non-blocking mode and scheduler callbacks are not supported on Symbian.

7.202.2 Constructor & Destructor Documentation

7.202.2.1 virtual [OsclSchedulerObserver](#)::~[OsclSchedulerObserver](#) () [inline, virtual]

7.202.3 Member Function Documentation

7.202.3.1 virtual void [OsclSchedulerObserver::OsclSchedulerReadyCallback](#) ([OsclAny](#) * *aContext*) [pure virtual]

[OsclSchedulerReadyCallback](#) is called when the ready queue is updated, meaning an AO is ready to run. Scheduler needs to be run ASAP. Calling context may be any thread, so be careful!

The current observer is cleared before making the callback, so the observer must call RegisterForCallback again if it wants further notifications.

7.202.3.2 virtual void [OsclSchedulerObserver::OsclSchedulerTimerCallback](#) ([OsclAny](#) * *aContext*, uint32 *aDelayMsec*) [pure virtual]

[OsclSchedulerTimerCallback](#) is called when the front of the timer queue is updated. This means the minimum delay has changed and scheduler needs to be run again after *aDelayMsec*. Calling context is in-thread.

The current observer is cleared before making the callback, so the observer must call RegisterForCallback again if it wants further notifications.

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

- [oscl_scheduler.h](#)

7.203 OsclScopedLock< LockClass > Class Template Reference

The [OsclScopedLock](#) class is a template class that handles unlocking an abstract class on destruction. This is very useful for ensuring that the lock is released when the [OsclScopedLock](#) goes out of scope.

```
#include <oscl_lock_base.h>
```

Public Member Functions

- [OsclScopedLock](#) (LockClass &*inLock*)
Default constructor Initializes the pointer and takes ownership.
- [~OsclScopedLock](#) ()
Destructor.

7.203.1 Detailed Description

template<class LockClass> class OsclScopedLock< LockClass >

The [OsclScopedLock](#) class is a template class that handles unlocking an abstract class on destruction. This is very useful for ensuring that the lock is released when the [OsclScopedLock](#) goes out of scope. The purpose of this class is to provide a way to prevent accidental resource leaks in a class or a method, due to "not remembering to unlock" variables which might lead to deadlock conditions.

7.203.2 Constructor & Destructor Documentation

7.203.2.1 **template<class LockClass > OsclScopedLock< LockClass >::OsclScopedLock (LockClass & *inLock*) [inline, explicit]**

Default constructor Initializes the pointer and takes ownership.

7.203.2.2 **template<class LockClass > OsclScopedLock< LockClass >::~OsclScopedLock () [inline]**

Destructor.

The pointer is deleted in case this class still has ownership

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

- [oscl_lock_base.h](#)

7.204 OsclSelect Class Reference

```
#include <oscl_init.h>
```

Public Member Functions

- [OsclSelect \(\)](#)
- [OsclSelect \(Oscl_DefAlloc *erralloc, Oscl_DefAlloc *schedalloc, const char *name, int32 reserve=10, bool heapcheck=false, FILE *output=NULL\)](#)

Data Fields

- bool [iOsclBase](#)
- bool [iOsclMemory](#)
- bool [iOsclErrorTrap](#)
- bool [iOsclLogger](#)
- bool [iOsclScheduler](#)
- Oscl_DefAlloc * [iErrAlloc](#)
- Oscl_DefAlloc * [iSchedulerAlloc](#)
- const char * [iSchedulerName](#)
- int32 [iSchedulerReserve](#)
- bool [iHeapCheck](#)
- FILE * [iOutputFile](#)

7.204.1 Detailed Description

Oscl Module selection and Init/Cleanup options.

7.204.2 Constructor & Destructor Documentation

7.204.2.1 **OsclSelect::OsclSelect () [inline]**

7.204.2.2 **OsclSelect::OsclSelect (Oscl_DefAlloc * *erralloc*, Oscl_DefAlloc * *schedalloc*, const char * *name*, int32 *reserve* = 10, bool *heapcheck* = **false**, FILE * *output* = **NULL**) [inline]**

7.204.3 Field Documentation

7.204.3.1 **Oscl_DefAlloc* OsclSelect::iErrAlloc**

7.204.3.2 **bool OsclSelect::iHeapCheck**

7.204.3.3 **bool OsclSelect::iOsclBase**

7.204.3.4 **bool OsclSelect::iOsclErrorTrap**

7.204.3.5 **bool OsclSelect::iOsclLogger**

7.204.3.6 **bool OsclSelect::iOsclMemory**

7.204.3.7 **bool OsclSelect::iOsclScheduler**

7.204.3.8 **FILE* OsclSelect::iOutputFile**

7.204.3.9 **Oscl_DefAlloc* OsclSelect::iSchedulerAlloc**

7.204.3.10 **const char* OsclSelect::iSchedulerName**

7.204.3.11 **int32 OsclSelect::iSchedulerReserve**

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

- [oscl_init.h](#)

7.205 OsclSemaphore Class Reference

```
#include <oscl_semaphore.h>
```

Public Member Functions

- OSCL_IMPORT_REF OsclSemaphore ()
- OSCL_IMPORT_REF ~OsclSemaphore ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Create (uint32 initVal=0)
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Close ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Wait ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Wait (uint32 timeout_msec)
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError TryWait ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Signal ()

7.205.1 Detailed Description

Class Semaphore

7.205.2 Constructor & Destructor Documentation

7.205.2.1 OSCL_IMPORT_REF OsclSemaphore::OsclSemaphore ()

Class constructor

7.205.2.2 OSCL_IMPORT_REF OsclSemaphore::~OsclSemaphore ()

Class destructor

7.205.3 Member Function Documentation

7.205.3.1 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclSemaphore::Close ()

Closes the Semaphore

Parameters

It wont take any parameters

Returns

Returns the Error whether it is success or failure incase of failure it will return what is the specific error

7.205.3.2 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclSemaphore::Create (uint32 initVal = 0)

Creates the Semaphore

Parameters

Initialcount

Returns

Returns the Error whether it is success or failure incase of failure it will return what is the specific error

7.205.3.3 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclSemaphore::Signal ()

Signals that the thread is finished with the Semaphore

Parameters

It wont take any parameters

Returns

Returns the Error whether it is success or failure incase of failure it will return what is the specific error

7.205.3.4 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclSemaphore::TryWait ()

Try to acquire semaphore ,if the semaphore is already acquired by another thread, calling thread immediately returns with out blocking

Parameters

It wont take any parameters

Returns

Returns SUCCESS_ERROR if the semaphore was acquired, SEM_LOCKED_ERROR if the semaphore cannot be acquired without waiting, or an error code if the operation failed. Note: this function may not be supported on all platforms, and may return NOT_IMPLEMENTED.

7.205.3.5 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclSemaphore::Wait (uint32 timeout_msec)

Makes the thread to wait on the Semaphore, with a timeout.

Parameters

timeout in milliseconds.

Returns

Returns SUCCESS_ERROR if the semaphore was aquired, WAIT_TIMEOUT_ERROR if the timeout expired without acquiring the semaphore, or an error code if the operation failed. Note: this function may not be supported on all platforms, and may return NOT_IMPLEMENTED.

7.205.3.6 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclSemaphore::Wait ()

Makes the thread to wait on the Semaphore

Parameters

It wont take any parameters

Returns

Returns the Error whether it is success or failure incase of failure it will return what is the specific error

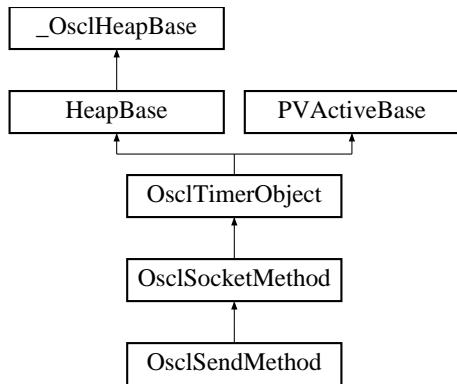
The documentation for this class was generated from the following file:

- [oscl_semaphore.h](#)

7.206 OsclSendMethod Class Reference

```
#include <oscl_socket_send.h>
```

Inheritance diagram for OsclSendMethod:



Public Member Functions

- [~OsclSendMethod \(\)](#)
- [TPVSocketEvent Send \(const uint8 *&aPtr, uint32 aLen, int32 aTimeout\)](#)
- [uint8 * GetSendData \(int32 *aLength\)](#)
- [OsclSendRequest * SendRequest \(\)](#)

Static Public Member Functions

- static [OsclSendMethod * NewL \(OsclIPSocketI &c\)](#)

7.206.1 Constructor & Destructor Documentation

7.206.1.1 OsclSendMethod::~OsclSendMethod ()

7.206.2 Member Function Documentation

7.206.2.1 uint8* OsclSendMethod::GetSendData (int32 * aLength)

Referenced by [OsclTCPSocketI::GetSendData\(\)](#).

7.206.2.2 static OsclSendMethod* OsclSendMethod::NewL (OsclIPSocketI & c) [static]

7.206.2.3 TPVSocketEvent OsclSendMethod::Send (const uint8 *& aPtr, uint32 aLen, int32 aTimeout)

Referenced by [OsclTCPSocketI::Send\(\)](#).

7.206.2.4 OsclSendRequest* OsclSendMethod::SendRequest () [inline]

References OsclSocketMethod::iSocketRequestAO.

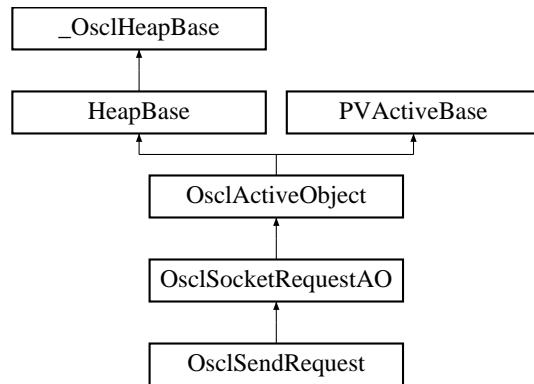
The documentation for this class was generated from the following file:

- [oscl_socket_send.h](#)

7.207 OsclSendRequest Class Reference

```
#include <oscl_socket_send.h>
```

Inheritance diagram for OsclSendRequest:



Public Member Functions

- [OsclSendRequest \(OsclSocketMethod &c\)](#)
- void [Send \(const uint8 *&aPtr, uint32 aLen\)](#)
- void [Success \(\)](#)
- uint8 * [GetSendData \(int32 *aLength\)](#)

7.207.1 Constructor & Destructor Documentation

[7.207.1.1 OsclSendRequest::OsclSendRequest \(OsclSocketMethod & c\) \[inline\]](#)

7.207.2 Member Function Documentation

[7.207.2.1 uint8* OsclSendRequest::GetSendData \(int32 * aLength\)](#)

[7.207.2.2 void OsclSendRequest::Send \(const uint8 *& aPtr, uint32 aLen\)](#)

[7.207.2.3 void OsclSendRequest::Success \(\) \[virtual\]](#)

Reimplemented from [OsclSocketRequestAO](#).

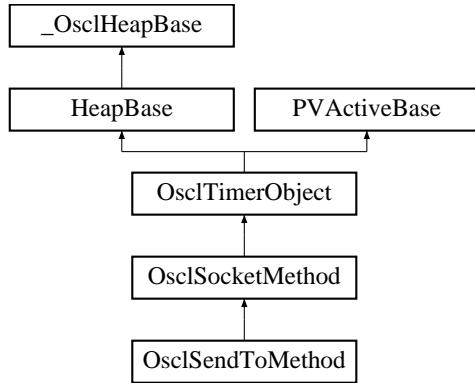
The documentation for this class was generated from the following file:

- [oscl_socket_send.h](#)

7.208 OsclSendToMethod Class Reference

```
#include <oscl_socket_send_to.h>
```

Inheritance diagram for OsclSendToMethod:



Public Member Functions

- [~OsclSendToMethod \(\)](#)
- [TPVSocketEvent SendTo \(const uint8 *&aPtr, uint32 aLen, OsclNetworkAddress &aAddress, int32 aTimeout\)](#)
- [uint8 * GetSendData \(int32 *aLength\)](#)
- [OsclSendToRequest * SendToRequest \(\)](#)

Static Public Member Functions

- static [OsclSendToMethod * NewL \(OsclIPSocketI &c\)](#)

7.208.1 Constructor & Destructor Documentation

7.208.1.1 OsclSendToMethod::~OsclSendToMethod ()

7.208.2 Member Function Documentation

7.208.2.1 uint8* OsclSendToMethod::GetSendData (int32 * aLength)

Referenced by OsclUDPSocketI::GetSendData().

7.208.2.2 static OsclSendToMethod* OsclSendToMethod::NewL (OsclIPSocketI &c) [static]

7.208.2.3 TPVSocketEvent OsclSendToMethod::SendTo (const uint8 *& aPtr, uint32 aLen, OsclNetworkAddress & aAddress, int32 aTimeout)

Referenced by OsclUDPSocketI::SendTo().

7.208.2.4 OsclSendToRequest* OsclSendToMethod::SendToRequest () [inline]

References OsclSocketMethod::iSocketRequestAO.

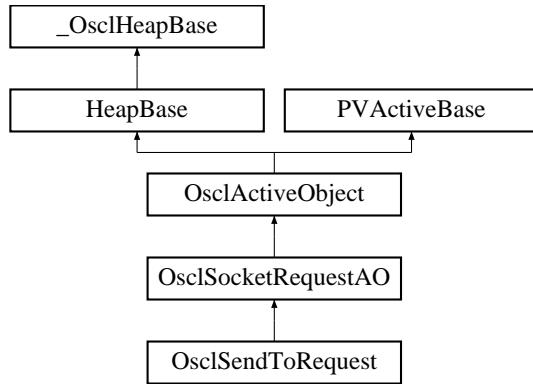
The documentation for this class was generated from the following file:

- [oscl_socket_send_to.h](#)

7.209 OsclSendToRequest Class Reference

```
#include <oscl_socket_send_to.h>
```

Inheritance diagram for OsclSendToRequest:



Public Member Functions

- [OsclSendToRequest \(OsclSocketMethod &c\)](#)
- void [SendTo \(const uint8 *&aPtr, uint32 aLen, OsclNetworkAddress &aAddress\)](#)
- void [Success \(\)](#)
- uint8 * [GetSendData \(int32 *aLength\)](#)

7.209.1 Detailed Description

This is the AO that interacts with the socket server

7.209.2 Constructor & Destructor Documentation

7.209.2.1 OsclSendToRequest::OsclSendToRequest (OsclSocketMethod & c) [inline]

7.209.3 Member Function Documentation

7.209.3.1 uint8* OsclSendToRequest::GetSendData (int32 * aLength)

7.209.3.2 void OsclSendToRequest::SendTo (const uint8 *& aPtr, uint32 aLen, OsclNetworkAddress & aAddress)

7.209.3.3 void OsclSendToRequest::Success () [virtual]

Reimplemented from [OsclSocketRequestAO](#).

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

- [oscl_socket_send_to.h](#)

7.210 OsclSharedPtr< TheClass > Class Template Reference

A parameterized smart pointer class.

```
#include <oscl_shared_ptr.h>
```

Public Member Functions

- **OsclSharedPtr ()**
Constructor.
- **OsclSharedPtr (TheClass *inClassPtr, OsclRefCounter *in_refcnt)**
Constructor.
- **OsclSharedPtr (const OsclSharedPtr &inSharedPtr)**
Copy constructor.
- **virtual ~OsclSharedPtr ()**
Destructor.
- **TheClass * operator-> ()**
TheClass & operator* ()
The indirection operator returns a reference to an object of the parameterized type.
- **operator TheClass * ()**
Casting operator.
- **TheClass * GetRep ()**
Use this function to get a pointer to the wrapped object.
- **OsclRefCounter * GetRefCounter ()**
Get the refcount pointer. This should primarily be used for conversion operations.
- **int get_count ()**
Get a count of how many references to the object exist.
- **void Bind (const OsclSharedPtr &inHandle)**
Use this function to bind an existing OsclSharedPtr to a already-wrapped object.
- **void Bind (TheClass *ptr, OsclRefCounter *in_refcnt)**
Use this function to bind an existing OsclSharedPtr to a new (unwrapped) object.
- **void Unbind ()**
Use this function of unbind an existing OsclSharedPtr.
- **OsclSharedPtr & operator= (const OsclSharedPtr &inSharedPtr)**
Assignment operator.
- **bool operator== (const OsclSharedPtr &b) const**
Test for equality to see if two PVHandles wrap the same object.

7.210.1 Detailed Description

template<class TheClass> class OsclSharedPtr< TheClass >

A parameterized smart pointer class.

7.210.2 Constructor & Destructor Documentation

7.210.2.1 template<class TheClass> OsclSharedPtr< TheClass >::OsclSharedPtr () [inline]

Constructor.

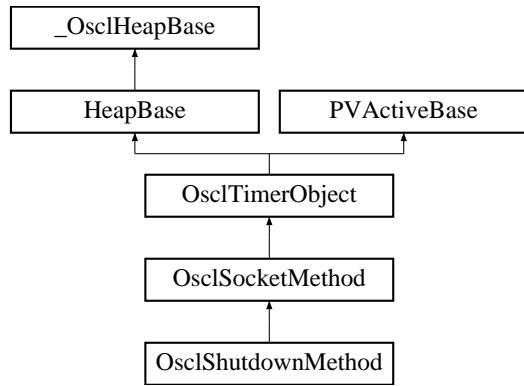
The documentation for this class was generated from the following file:

- [oscl_shared_ptr.h](#)

7.211 OsclShutdownMethod Class Reference

```
#include <oscl_socket_shutdown.h>
```

Inheritance diagram for OsclShutdownMethod:



Public Member Functions

- `~OsclShutdownMethod ()`
- `TPVSocketEvent Shutdown (TPVSocketShutdown aHow, int32 aTimeout)`
- `OsclShutdownRequest * ShutdownRequest ()`

Static Public Member Functions

- static `OsclShutdownMethod * NewL (OsclIPSocketI &c)`

7.211.1 Constructor & Destructor Documentation

7.211.1.1 OsclShutdownMethod::~OsclShutdownMethod ()

7.211.2 Member Function Documentation

7.211.2.1 static OsclShutdownMethod* OsclShutdownMethod::NewL (OsclIPSocketI &c) [static]

7.211.2.2 TPVSocketEvent OsclShutdownMethod::Shutdown (TPVSocketShutdown aHow, int32 aTimeout)

Referenced by `OsclTCPSocketI::Shutdown()`.

7.211.2.3 OsclShutdownRequest* OsclShutdownMethod::ShutdownRequest () [inline]

References `OsclSocketMethod::iSocketRequestAO`.

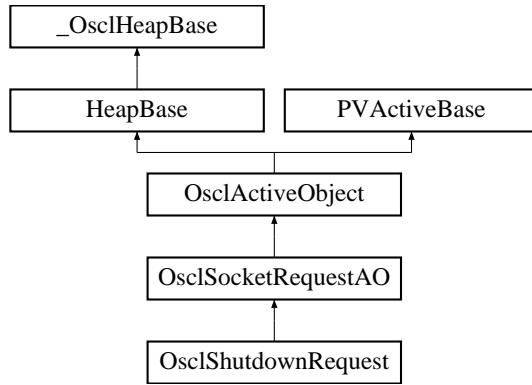
The documentation for this class was generated from the following file:

- `oscl_socket_shutdown.h`

7.212 OsclShutdownRequest Class Reference

```
#include <oscl_socket_shutdown.h>
```

Inheritance diagram for OsclShutdownRequest:



Public Member Functions

- [OsclShutdownRequest \(OsclSocketMethod &c\)](#)
- void [Shutdown \(TPVSocketShutdown aHow\)](#)

7.212.1 Detailed Description

This is the AO that interacts with the socket server

7.212.2 Constructor & Destructor Documentation

7.212.2.1 [OsclShutdownRequest::OsclShutdownRequest \(OsclSocketMethod & c\) \[inline\]](#)

7.212.3 Member Function Documentation

7.212.3.1 [void OsclShutdownRequest::Shutdown \(TPVSocketShutdown aHow\)](#)

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

- [oscl_socket_shutdown.h](#)

7.213 OsclSingletonEx< T, ID, Registry > Class Template Reference

```
#include <oscl_error.h>
```

Public Member Functions

- [OsclSingletonEx \(\)](#)
- [~OsclSingletonEx \(\)](#)
- [T & operator* \(\) const](#)

The indirection operator () accesses a value indirectly, through a pointer.*

- [T * operator-> \(\) const](#)

The indirection operator (->) accesses a value indirectly, through a pointer.

- [bool set \(\)](#)

set() method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

Protected Attributes

- [T * _Ptr](#)

```
template<class T, uint32 ID, class Registry = OsclSingletonRegistryEx> class OsclSingletonEx< T, ID, Registry >
```

7.213.1 Constructor & Destructor Documentation

7.213.1.1 template<class T , uint32 ID, class Registry = OsclSingletonRegistryEx> OsclSingletonEx< T, ID, Registry >::OsclSingletonEx () [inline]

7.213.1.2 template<class T , uint32 ID, class Registry = OsclSingletonRegistryEx> OsclSingletonEx< T, ID, Registry >::~OsclSingletonEx () [inline]

7.213.2 Member Function Documentation

7.213.2.1 template<class T , uint32 ID, class Registry = OsclSingletonRegistryEx> T& OsclSingletonEx< T, ID, Registry >::operator* () const [inline]

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the OsclSingleton can be used like the regular pointer that it was initialized with.

References OsclSingletonEx< T, ID, Registry >::_Ptr.

7.213.2.2 template<class T , uint32 ID, class Registry = OsclSingletonRegistryEx> T* OsclSingletonEx< T, ID, Registry >::operator-> () const [inline]

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the OsclSingleton can be used like the regular pointer that it was initialized with.

References OsclSingletonEx< T, ID, Registry >::_Ptr.

7.213.2.3 template<class T , uint32 ID, class Registry = OsclSingletonRegistryEx> bool OsclSingletonEx< T, ID, Registry >::set () [inline]

[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

References OsclSingletonEx< T, ID, Registry >::_Ptr, and OSCL_STATIC_CAST.

7.213.3 Field Documentation

7.213.3.1 template<class T , uint32 ID, class Registry = OsclSingletonRegistryEx> T* OsclSingletonEx< T, ID, Registry >::_Ptr [protected]

Referenced by OsclSingletonEx< T, ID, Registry >::operator*(), OsclSingletonEx< T, ID, Registry >::operator->(), and OsclSingletonEx< T, ID, Registry >::set().

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

- [oscl_error.h](#)

7.214 OsclSingletonRegistryEx Class Reference

```
#include <oscl_error.h>
```

Static Public Member Functions

- static `OsclAny * getInstance (uint32 ID)`
- static void `registerInstance (OsclAny *ptr, uint32 ID)`
- static `OsclAny * lockAndGetInstance (uint32 ID)`
- static void `registerInstanceAndUnlock (OsclAny *ptr, uint32 ID)`

7.214.1 Member Function Documentation

7.214.1.1 static OsclAny* OsclSingletonRegistryEx::getInstance (uint32 *ID*) [inline, static]

References OsclError::Leave(), and OSCL_ASSERT.

7.214.1.2 static OsclAny* OsclSingletonRegistryEx::lockAndGetInstance (uint32 *ID*) [inline, static]

References OsclError::Leave(), and OSCL_ASSERT.

7.214.1.3 static void OsclSingletonRegistryEx::registerInstance (OsclAny * *ptr*, uint32 *ID*) [inline, static]

References OsclError::Leave(), and OSCL_ASSERT.

7.214.1.4 static void OsclSingletonRegistryEx::registerInstanceAndUnlock (OsclAny * *ptr*, uint32 *ID*) [inline, static]

References OsclError::Leave(), and OSCL_ASSERT.

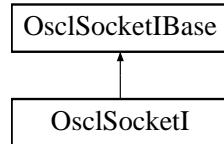
The documentation for this class was generated from the following file:

- `oscl_error.h`

7.215 OsclSocketI Class Reference

```
#include <oscl_socket_imp_pv.h>
```

Inheritance diagram for OsclSocketI:



Public Member Functions

- `~OsclSocketI ()`
- `int32 Open (OsclSocketServI &aServer, uint32 addrFamily, uint32 sockType, uint32 protocol)`
- `int32 Open (OsclSocketServI &aServer)`
- `int32 Bind (OsclNetworkAddress &anAddr)`
- `int32 SetSockOpt (TPVSocketOptionLevel aOptionLevel, TPVSocketOptionName aOptionName, OsclAny *aOptionValue, int32 aOptionLen)`
- `int32 GetPeerName (OsclNetworkAddress &peerName)`
- `int32 Join (OsclNetworkAddress &anAddr)`
- `int32 Close ()`
- `int32 Listen (uint32 qSize)`
- `int32 SetRecvBufferSize (uint32 size)`
- `TPVSocketEvent ThreadLogoff ()`
- `TPVSocketEvent ThreadLogon (OsclSocketServI *aServ)`
- `void Connect (ConnectParam &, OsclSocketRequestAO &)`
- `void Accept (AcceptParam &, OsclSocketRequestAO &)`
- `void Shutdown (ShutdownParam &, OsclSocketRequestAO &)`
- `void Send (SendParam &, OsclSocketRequestAO &)`
- `void SendSuccess (SendParam &)`
- `void SendTo (SendToParam &, OsclSocketRequestAO &)`
- `void SendToSuccess (SendToParam &)`
- `void Recv (RecvParam &, OsclSocketRequestAO &)`
- `void RecvSuccess (RecvParam &)`
- `void RecvFrom (RecvFromParam &, OsclSocketRequestAO &)`
- `void RecvFromSuccess (RecvFromParam &)`
- `TOsclSocket Socket ()`
- `void ProcessConnect (OsclSocketServRequestQElem *)`
- `void ProcessShutdown (OsclSocketServRequestQElem *)`
- `void ProcessAccept (OsclSocketServRequestQElem *)`
- `void ProcessSendTo (OsclSocketServRequestQElem *)`
- `void ProcessRecvFrom (OsclSocketServRequestQElem *)`
- `void ProcessSend (OsclSocketServRequestQElem *)`
- `void ProcessRecv (OsclSocketServRequestQElem *)`
- `PVLogger * Logger ()`

Static Public Member Functions

- static [OsclSocketI * NewL \(Oscl_DefAlloc &a\)](#)
- static bool [MakeAddr \(OsclNetworkAddress &in, TOsclSockAddr &addr\)](#)
- static void [MakeAddr \(TOsclSockAddr &in, OsclNetworkAddress &addr\)](#)
- static bool [MakeMulticastGroupInformation \(OsclIpMReq &in, TIpMReq &addr\)](#)
- static void [MakeMulticastGroupInformation \(TIpMReq &in, OsclIpMReq &addr\)](#)

Friends

- class [OsclAcceptRequest](#)
- class [OsclConnectRequest](#)
- class [OsclRecvRequest](#)
- class [OsclRecvFromRequest](#)
- class [OsclSendRequest](#)
- class [OsclSendToRequest](#)
- class [OsclShutdownRequest](#)
- class [OsclUDPSocket](#)
- class [OsclTCPSocket](#)

7.215.1 Detailed Description

Socket implementation class

7.215.2 Constructor & Destructor Documentation

7.215.2.1 [OsclSocketI::~OsclSocketI \(\)](#)

7.215.3 Member Function Documentation

7.215.3.1 [void OsclSocketI::Accept \(AcceptParam &, OsclSocketRequestAO &\) \[virtual\]](#)

Implements [OsclSocketIBase](#).

7.215.3.2 [int32 OsclSocketI::Bind \(OsclNetworkAddress & anAddr\) \[virtual\]](#)

Implements [OsclSocketIBase](#).

7.215.3.3 [int32 OsclSocketI::Close \(\) \[virtual\]](#)

Implements [OsclSocketIBase](#).

7.215.3.4 [void OsclSocketI::Connect \(ConnectParam &, OsclSocketRequestAO &\) \[virtual\]](#)

Implements [OsclSocketIBase](#).

7.215.3.5 int32 OsclSocketI::GetPeerName (OsclNetworkAddress & *peerName*)

7.215.3.6 int32 OsclSocketI::Join (OsclNetworkAddress & *anAddr*) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.7 int32 OsclSocketI::Listen (uint32 *qSize*) [virtual]

Implements [OsclSocketIBase](#).

Referenced by [OsclTCPSocketI::Listen\(\)](#).

7.215.3.8 PVLogger* OsclSocketI::Logger () [inline]

7.215.3.9 static void OsclSocketI::MakeAddr (TOsclSockAddr & *in*, OsclNetworkAddress & *addr*) [static]

7.215.3.10 static bool OsclSocketI::MakeAddr (OsclNetworkAddress & *in*, TOsclSockAddr & *addr*) [static]

7.215.3.11 static void OsclSocketI::MakeMulticastGroupInformation (TIpMReq & *in*, OsclIpMReq & *addr*) [static]

7.215.3.12 static bool OsclSocketI::MakeMulticastGroupInformation (OsclIpMReq & *in*, TIpMReq & *addr*) [static]

7.215.3.13 static OsclSocketI* OsclSocketI::NewL (Oscl_DefAlloc & *a*) [static]

7.215.3.14 int32 OsclSocketI::Open (OsclSocketServI & *aServer*) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.15 int32 OsclSocketI::Open (OsclSocketServI & *aServer*, uint32 *addrFamily*, uint32 *sockType*, uint32 *protocol*) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.16 void OsclSocketI::ProcessAccept (OsclSocketServRequestQElem *)

7.215.3.17 void OsclSocketI::ProcessConnect (OsclSocketServRequestQElem *)

7.215.3.18 void OsclSocketI::ProcessRecv (OsclSocketServRequestQElem *)

7.215.3.19 void OsclSocketI::ProcessRecvFrom (OsclSocketServRequestQElem *)

7.215.3.20 void OsclSocketI::ProcessSend (OsclSocketServRequestQElem *)

7.215.3.21 void OsclSocketI::ProcessSendTo (OsclSocketServRequestQElem *)

7.215.3.22 void OsclSocketI::ProcessShutdown (OsclSocketServRequestQElem *)

7.215.3.23 void OsclSocketI::Recv (RecvParam &, OsclSocketRequestAO &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.24 void OsclSocketI::RecvFrom (RecvFromParam &, OsclSocketRequestAO &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.25 void OsclSocketI::RecvFromSuccess (RecvFromParam &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.26 void OsclSocketI::RecvSuccess (RecvParam &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.27 void OsclSocketI::Send (SendParam &, OsclSocketRequestAO &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.28 void OsclSocketI::SendSuccess (SendParam &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.29 void OsclSocketI::SendTo (SendToParam &, OsclSocketRequestAO &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.30 void OsclSocketI::SendToSuccess (SendToParam &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.31 int32 OsclSocketI::SetRecvBufferSize (uint32 *size*)

7.215.3.32 int32 OsclSocketI::SetSockOpt (TPVSocketOptionLevel *aOptionLevel*, TPVSocketOptionName *aOptionName*, OsclAny * *aOptionValue*, int32 *aOptionLen*)

7.215.3.33 void OsclSocketI::Shutdown (ShutdownParam &, OsclSocketRequestAO &) [virtual]

Implements [OsclSocketIBase](#).

7.215.3.34 TOsclSocket OsclSocketI::Socket () [inline]

7.215.3.35 TPVSocketEvent OsclSocketI::ThreadLogoff ()

7.215.3.36 TPVSocketEvent OsclSocketI::ThreadLogon (OsclSocketServI * *aServ*)

7.215.4 Friends And Related Function Documentation

7.215.4.1 friend class OsclAcceptRequest [friend]

7.215.4.2 friend class OsclConnectRequest [friend]

7.215.4.3 friend class OsclRecvFromRequest [friend]

7.215.4.4 friend class OsclRecvRequest [friend]

7.215.4.5 friend class OsclSendRequest [friend]

7.215.4.6 friend class OsclSendToRequest [friend]

7.215.4.7 friend class OsclShutdownRequest [friend]

7.215.4.8 friend class OsclTCPSocket [friend]

Reimplemented from [OsclSocketIBase](#).

7.215.4.9 friend class OsclUDPSocket [friend]

Reimplemented from [OsclSocketIBase](#).

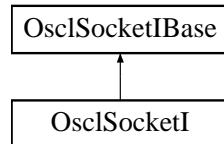
The documentation for this class was generated from the following file:

- [oscl_socket_imp_pv.h](#)

7.216 OsclSocketIBase Class Reference

```
#include <oscl_socket_imp_base.h>
```

Inheritance diagram for OsclSocketIBase:



Public Member Functions

- virtual ~OsclSocketIBase ()
- virtual int32 Open (OsclSocketServI &aServer, uint32 addrFamily, uint32 sockType, uint32 proto-
col)=0
- virtual int32 Open (OsclSocketServI &aServer)=0
- virtual int32 Bind (OsclNetworkAddress &anAddr)=0
- virtual int32 Join (OsclNetworkAddress &anAddr)=0
- virtual int32 Close ()=0
- virtual int32 Listen (uint32 qSize)=0
- virtual void Connect (ConnectParam &, OsclSocketRequestAO &)=0
- virtual void Accept (AcceptParam &, OsclSocketRequestAO &)=0
- virtual void Shutdown (ShutdownParam &, OsclSocketRequestAO &)=0
- virtual void Send (SendParam &, OsclSocketRequestAO &)=0
- virtual void SendSuccess (SendParam &)=0
- virtual void SendTo (SendToParam &, OsclSocketRequestAO &)=0
- virtual void SendToSuccess (SendToParam &)=0
- virtual void Recv (RecvParam &, OsclSocketRequestAO &)=0
- virtual void RecvSuccess (RecvParam &)=0
- virtual void RecvFrom (RecvFromParam &, OsclSocketRequestAO &)=0
- virtual void RecvFromSuccess (RecvFromParam &)=0
- virtual void BindAsync (BindParam &, OsclSocketRequestAO &)
- virtual void ListenAsync (ListenParam &, OsclSocketRequestAO &)
- void CancelFxn (TPVSocketFxn)

Static Public Member Functions

- static bool HasAsyncBind ()
- static bool HasAsyncListen ()

Protected Member Functions

- OsclSocketIBase (Oscl_DefAlloc &a)
- virtual void CancelConnect ()=0
- virtual void CancelAccept ()=0
- virtual void CancelShutdown ()=0
- virtual void CancelSend ()=0

- virtual void [CancelSendTo \(\)=0](#)
- virtual void [CancelRecv \(\)=0](#)
- virtual void [CancelRecvFrom \(\)=0](#)
- virtual void [CancelBind \(\)](#)
- virtual void [CancelListen \(\)](#)
- virtual bool [IsOpen \(\)=0](#)

Static Protected Member Functions

- static int [GetShutdown \(TPVSocketShutdown aOsclVal\)](#)

Protected Attributes

- [Oscl_DefAlloc & iAlloc](#)
- [OsclSocketServI * iSocketServ](#)

Friends

- class [OsclSocketRequest](#)
- class [OsclSocketMethod](#)
- class [OsclSocketRequestAO](#)
- class [OsclUDPSocket](#)
- class [OsclTCPSocket](#)

7.216.1 Detailed Description

Socket implementation base class

7.216.2 Constructor & Destructor Documentation

7.216.2.1 virtual OsclSocketIBase::~OsclSocketIBase () [virtual]

7.216.2.2 OsclSocketIBase::OsclSocketIBase (Oscl_DefAlloc & *a*) [protected]

7.216.3 Member Function Documentation

7.216.3.1 virtual void OsclSocketIBase::Accept (AcceptParam &, OsclSocketRequestAO &) [pure virtual]

Implemented in [OsclSocketI](#).

7.216.3.2 virtual int32 OsclSocketIBase::Bind (OsclNetworkAddress & *anAddr*) [pure virtual]

Implemented in [OsclSocketI](#).

7.216.3.3 virtual void OsclSocketIBase::BindAsync (BindParam &, OsclSocketRequestAO &)
[**inline, virtual**]

7.216.3.4 virtual void OsclSocketIBase::CancelAccept () [**protected, pure virtual**]

7.216.3.5 virtual void OsclSocketIBase::CancelBind () [**inline, protected, virtual**]

7.216.3.6 virtual void OsclSocketIBase::CancelConnect () [**protected, pure virtual**]

7.216.3.7 void OsclSocketIBase::CancelFxn (TPVSocketFxn)

Referenced by OsclSocketRequestAO::DoCancel().

7.216.3.8 virtual void OsclSocketIBase::CancelListen () [**inline, protected, virtual**]

7.216.3.9 virtual void OsclSocketIBase::CancelRecv () [**protected, pure virtual**]

7.216.3.10 virtual void OsclSocketIBase::CancelRecvFrom () [**protected, pure virtual**]

7.216.3.11 virtual void OsclSocketIBase::CancelSend () [**protected, pure virtual**]

7.216.3.12 virtual void OsclSocketIBase::CancelSendTo () [**protected, pure virtual**]

7.216.3.13 virtual void OsclSocketIBase::CancelShutdown () [**protected, pure virtual**]

7.216.3.14 virtual int32 OsclSocketIBase::Close () [**pure virtual**]

Implemented in [OsclSocketI](#).

7.216.3.15 virtual void OsclSocketIBase::Connect (ConnectParam &, OsclSocketRequestAO &)
[**pure virtual**]

Implemented in [OsclSocketI](#).

7.216.3.16 static int OsclSocketIBase::GetShutdown (TPVSocketShutdown aOsclVal) [**static, protected**]

7.216.3.17 static bool OsclSocketIBase::HasAsyncBind () [**static**]

Referenced by OsclUDPSocketI::BindAsync(), and OsclTCPSocketI::BindAsync().

7.216.3.18 static bool OsclSocketIBase::HasAsyncListen () [**static**]

Referenced by OsclTCPSocketI::ListenAsync().

7.216.3.19 `virtual bool OsclSocketIBase::IsOpen () [protected, pure virtual]`

7.216.3.20 `virtual int32 OsclSocketIBase::Join (OsclNetworkAddress & anAddr) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.21 `virtual int32 OsclSocketIBase::Listen (uint32 qSize) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.22 `virtual void OsclSocketIBase::ListenAsync (ListenParam &, OsclSocketRequestAO & [inline, virtual]`

7.216.3.23 `virtual int32 OsclSocketIBase::Open (OsclSocketServI & aServer) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.24 `virtual int32 OsclSocketIBase::Open (OsclSocketServI & aServer, uint32 addrFamily, uint32 sockType, uint32 protocol) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.25 `virtual void OsclSocketIBase::Recv (RecvParam &, OsclSocketRequestAO & [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.26 `virtual void OsclSocketIBase::RecvFrom (RecvFromParam &, OsclSocketRequestAO &) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.27 `virtual void OsclSocketIBase::RecvFromSuccess (RecvFromParam &) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.28 `virtual void OsclSocketIBase::RecvSuccess (RecvParam &) [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.29 `virtual void OsclSocketIBase::Send (SendParam &, OsclSocketRequestAO & [pure virtual]`

Implemented in [OsclSocketI](#).

7.216.3.30 virtual void OsclSocketIBase::SendSuccess (SendParam &) [pure virtual]

Implemented in [OsclSocketI](#).

7.216.3.31 virtual void OsclSocketIBase::SendTo (SendToParam &, OsclSocketRequestAO &) [pure virtual]

Implemented in [OsclSocketI](#).

7.216.3.32 virtual void OsclSocketIBase::SendToSuccess (SendToParam &) [pure virtual]

Implemented in [OsclSocketI](#).

7.216.3.33 virtual void OsclSocketIBase::Shutdown (ShutdownParam &, OsclSocketRequestAO &) [pure virtual]

Implemented in [OsclSocketI](#).

7.216.4 Friends And Related Function Documentation

7.216.4.1 friend class OsclSocketMethod [friend]

7.216.4.2 friend class OsclSocketRequest [friend]

7.216.4.3 friend class OsclSocketRequestAO [friend]

7.216.4.4 friend class OsclTCPSocket [friend]

Reimplemented in [OsclSocketI](#).

7.216.4.5 friend class OsclUDPSocket [friend]

Reimplemented in [OsclSocketI](#).

7.216.5 Field Documentation

7.216.5.1 Oscl_DefAlloc& OsclSocketIBase::iAlloc [protected]

7.216.5.2 OsclSocketServI* OsclSocketIBase::iSocketServ [protected]

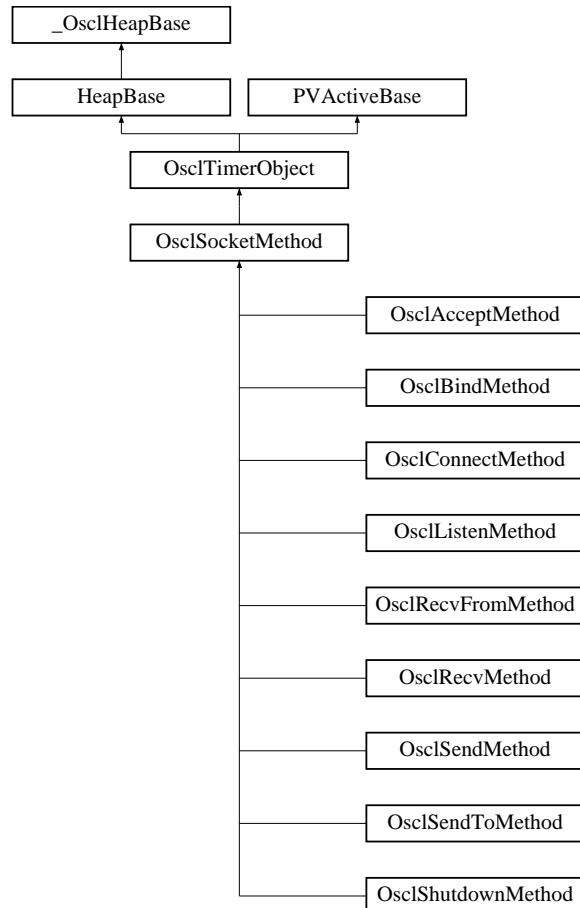
The documentation for this class was generated from the following file:

- [oscl_socket_imp_base.h](#)

7.217 OsclSocketMethod Class Reference

```
#include <oscl_socket_method.h>
```

Inheritance diagram for OsclSocketMethod:



Public Member Functions

- [OsclSocketMethod \(OsclIPSocketI &aContainer, const char *name, TPVSocketFxn fxn\)](#)
- virtual [~OsclSocketMethod \(\)](#)
- void [Abort \(\)](#)
- void [AbortAll \(\)](#)
- void [CancelMethod \(\)](#)
- [Oscl_DefAlloc & Alloc \(\)](#)
- [TPVSocketEvent ThreadLogon \(\)](#)
- [TPVSocketEvent ThreadLogoff \(\)](#)

Data Fields

- [OsclIPSocketI & iContainer](#)
- [TPVSocketFxn iSocketFxn](#)

Protected Member Functions

- void [ConstructL \(OsclSocketRequestAO *aAO\)](#)
- bool [StartMethod \(int32 aTimeoutMsec\)](#)
- void [MethodDone \(\)](#)
- void [Run \(\)](#)

Protected Attributes

- [OsclSocketRequestAO * iSocketRequestAO](#)

7.217.1 Detailed Description

`OsclSocketMethod` is the base class for all socket methods. Two AOs are required for each socket operation-- one to provide a timeout, and one to detect request completion. The `OsclSocketMethod` class implements the timeout and contains the request completion AO.

7.217.2 Constructor & Destructor Documentation

7.217.2.1 `OsclSocketMethod::OsclSocketMethod (OsclIPSocketI & aContainer, const char * name, TPVSocketFxn f xn) [inline]`

7.217.2.2 `virtual OsclSocketMethod::~OsclSocketMethod () [inline, virtual]`

7.217.3 Member Function Documentation

7.217.3.1 `void OsclSocketMethod::Abort () [inline]`

References `OsclTimerObject::Cancel()`.

Referenced by `AbortAll()`, `CancelMethod()`, and `OsclSocketRequestAO::RequestDone()`.

7.217.3.2 `void OsclSocketMethod::AbortAll () [inline]`

References `OsclSocketRequestAO::Abort()`, `Abort()`, and `iSocketRequestAO`.

7.217.3.3 `Oscl_DefAlloc& OsclSocketMethod::Alloc () [inline]`

References `OsclIPSocketI::Alloc()`, and `iContainer`.

7.217.3.4 `void OsclSocketMethod::CancelMethod () [inline]`

References `Abort()`, `OsclSocketRequestAO::DoCancel()`, and `iSocketRequestAO`.

Referenced by `OsclTCPSocketI::CancelAccept()`, `OsclUDPSocketI::CancelBind()`, `OsclTCPSocketI::CancelBind()`, `OsclTCPSocketI::CancelConnect()`, `OsclTCPSocketI::CancelListen()`, `OsclTCPSocketI::CancelRecv()`, `OsclUDPSocketI::CancelRecvFrom()`, `OsclTCPSocketI::CancelSend()`, `OsclUDPSocketI::CancelSendTo()`, and `OsclTCPSocketI::CancelShutdown()`.

7.217.3.5 void OsclSocketMethod::ConstructL (OsclSocketRequestAO * aAO) [inline, protected]

References iSocketRequestAO, OsclError::Leave(), and OsclErrGeneral.

7.217.3.6 void OsclSocketMethod::MethodDone () [inline, protected]

References OsclSocketRequestAO::Abort(), and iSocketRequestAO.

7.217.3.7 void OsclSocketMethod::Run () [protected, virtual]

Handles an active object's request completion event.

A derived class must provide an implementation to handle the completed request. If appropriate, it may issue another request.

The function is called by the active scheduler when a request completion event occurs, i.e. after the active scheduler's WaitForAnyRequest() function completes.

Before calling this active object's [Run\(\)](#) function, the active scheduler has:

1. decided that this is the highest priority active object with a completed request
2. marked this active object's request as complete (i.e. the request is no longer outstanding)

[Run\(\)](#) runs under a trap harness in the active scheduler. If it leaves, then the active scheduler calls ExecError() to handle the leave.

Note that once the active scheduler's Start() function has been called, all user code is run under one of the program's active object's [Run\(\)](#) or [RunError\(\)](#) functions.

Implements [PVActiveBase](#).

7.217.3.8 bool OsclSocketMethod::StartMethod (int32 aTimeoutMsec) [protected]
7.217.3.9 TPVSocketEvent OsclSocketMethod::ThreadLogoff ()
7.217.3.10 TPVSocketEvent OsclSocketMethod::ThreadLogon ()

7.217.4 Field Documentation

7.217.4.1 OsclIPSocketI& OsclSocketMethod::iContainer

Referenced by OsclSocketRequestAO::Alloc(), Alloc(), OsclSocketRequestAO::Id(), OsclSocketRequestAO::SocketI(), and OsclSocketRequestAO::SocketObserver().

7.217.4.2 TPVSocketFxn OsclSocketMethod::iSocketFxn

Referenced by OsclSocketRequestAO::DoCancel().

7.217.4.3 OsclSocketRequestAO* OsclSocketMethod::iSocketRequestAO [protected]

Referenced by AbortAll(), OsclAcceptMethod::AcceptRequest(), OsclBindMethod::BindRequest(), CancelMethod(), OsclConnectMethod::ConnectRequest(), ConstructL(), OsclListenMethod::ListenRequest(),

MethodDone(), OsclRecvFromMethod::RecvFromRequest(), OsclRecvMethod::RecvRequest(), OsclSendMethod::SendRequest(), OsclSendToMethod::SendToRequest(), and OsclShutdownMethod::ShutdownRequest().

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

- [oscl_socket_method.h](#)

7.218 OsclSocketObserver Class Reference

```
#include <oscl_socket_types.h>
```

Public Member Functions

- virtual OSCL_IMPORT_REF void [HandleSocketEvent](#) (int32 aId, [TPVSocketFxn](#) aFxn, [TPVSocketEvent](#) aEvent, int32 aError)=0
- virtual [~OsclSocketObserver](#) ()

7.218.1 Detailed Description

Socket event observer. The client implements this to get asynchronous command completion.

7.218.2 Constructor & Destructor Documentation

7.218.2.1 virtual [OsclSocketObserver::~OsclSocketObserver](#) () [inline, virtual]

7.218.3 Member Function Documentation

7.218.3.1 virtual OSCL_IMPORT_REF void [OsclSocketObserver::HandleSocketEvent](#) (int32 *aId*, [TPVSocketFxn](#) *aFxn*, [TPVSocketEvent](#) *aEvent*, int32 *aError*) [pure virtual]

Socket Event callback.

Parameters

aId,: The ID that was supplied when the socket was created.

aFxn,: Type of socket function call.

aEvent,: Function completion event. Will be EPVSocketSuccess, EPVSocketTimeout, or EPVSocketFailure.

aError,: When the event is EPVSocketFailure, this may contain a platform-specific error code, or zero if none is available.

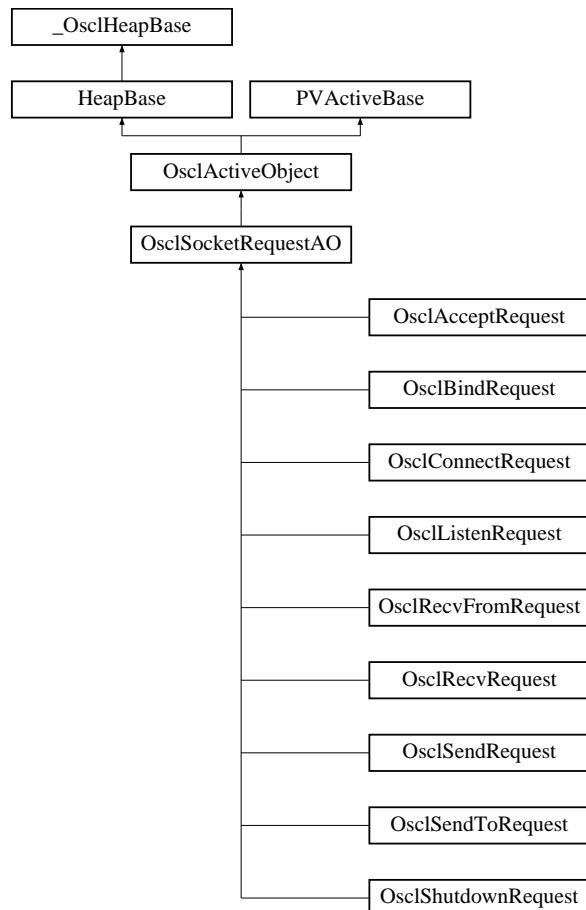
The documentation for this class was generated from the following file:

- [oscl_socket_types.h](#)

7.219 OsclSocketRequestAO Class Reference

```
#include <oscl_socket_method.h>
```

Inheritance diagram for OsclSocketRequestAO:



Public Member Functions

- void [ConstructL \(\)](#)

Protected Member Functions

- [OsclSocketRequestAO \(OsclSocketMethod &aContainer, const char *name\)](#)
- virtual [~OsclSocketRequestAO \(\)](#)
- [OsclAny * NewRequest \(const uint32 size\)](#)
- void [CleanupParam \(bool deallocate=false\)](#)
- void [Abort \(\)](#)
- void [RequestDone \(\)](#)
- int [GetSocketError \(\)](#)
- void [DoCancel \(\)](#)
- void [Run \(\)](#)

- virtual void [Success](#) ()
- [OsclSocketI * SocketI](#) ()
- [OsclSocketObserver * SocketObserver](#) ()
- uint32 [Id](#) ()
- [Oscl_DefAlloc & Alloc](#) ()

Protected Attributes

- [OsclSocketMethod & iContainer](#)
- int32 [iSocketError](#)
- [SocketRequestParam * iParam](#)
- uint32 [iParamSize](#)

Friends

- class [OsclSocketI](#)
- class [OsclSocketMethod](#)
- class [OsclSocketRequest](#)

7.219.1 Detailed Description

This is the base class for all the AOs that interact with the socket server. This object is contained within an [OsclSocketMethod](#) object

7.219.2 Constructor & Destructor Documentation

7.219.2.1 OsclSocketRequestAO::OsclSocketRequestAO ([OsclSocketMethod & aContainer](#), const char * *name*) [inline, protected]

7.219.2.2 virtual OsclSocketRequestAO::~OsclSocketRequestAO () [inline, protected, virtual]

References [CleanupParam\(\)](#).

7.219.3 Member Function Documentation

7.219.3.1 void OsclSocketRequestAO::Abort () [inline, protected]

References [OsclActiveObject::Cancel\(\)](#).

Referenced by [OsclSocketMethod::AbortAll\(\)](#), and [OsclSocketMethod::MethodDone\(\)](#).

7.219.3.2 Oscl_DefAlloc& OsclSocketRequestAO::Alloc () [inline, protected]

References [OsclIPSocketI::Alloc\(\)](#), [OsclSocketMethod::iContainer](#), and [iContainer](#).

7.219.3.3 void OsclSocketRequestAO::CleanupParam (bool *deallocate = false*) [protected]

Referenced by [~OsclSocketRequestAO\(\)](#).

7.219.3.4 void OsclSocketRequestAO::ConstructL () [inline]**7.219.3.5 void OsclSocketRequestAO::DoCancel () [inline, protected, virtual]**

Cancel request handler. This gets called by scheduler when the request is cancelled. The default routine will complete the request. If any additional action is needed, the derived class may override this. If the derived class does override DoCancel, it must complete the request.

Reimplemented from [OsclActiveObject](#).

References OsclSocketIBase::CancelFxn(), iContainer, OsclSocketMethod::iSocketFxn, and SocketI().

Referenced by OsclSocketMethod::CancelMethod().

7.219.3.6 int OsclSocketRequestAO::GetSocketError () [inline, protected]**7.219.3.7 uint32 OsclSocketRequestAO::Id () [inline, protected]**

References OsclSocketMethod::iContainer, iContainer, and OsclIPSocketI::iId.

7.219.3.8 OsclAny* OsclSocketRequestAO::NewRequest (const uint32 size) [protected]**7.219.3.9 void OsclSocketRequestAO::RequestDone () [inline, protected]**

References OsclSocketMethod::Abort(), and iContainer.

7.219.3.10 void OsclSocketRequestAO::Run () [protected, virtual]

Handles an active object's request completion event.

A derived class must provide an implementation to handle the completed request. If appropriate, it may issue another request.

The function is called by the active scheduler when a request completion event occurs, i.e. after the active scheduler's WaitForAnyRequest() function completes.

Before calling this active object's [Run\(\)](#) function, the active scheduler has:

1. decided that this is the highest priority active object with a completed request
2. marked this active object's request as complete (i.e. the request is no longer outstanding)

[Run\(\)](#) runs under a trap harness in the active scheduler. If it leaves, then the active scheduler calls ExecError() to handle the leave.

Note that once the active scheduler's Start() function has been called, all user code is run under one of the program's active object's [Run\(\)](#) or [RunError\(\)](#) functions.

Implements [PVActiveBase](#).

7.219.3.11 OsclSocketI* OsclSocketRequestAO::SocketI () [inline, protected]

References OsclSocketMethod::iContainer, iContainer, and OsclIPSocketI::iSocket.

Referenced by DoCancel().

7.219.3.12 OsclSocketObserver* OsclSocketRequestAO::SocketObserver () [inline, protected]

References OsclSocketMethod::iContainer, iContainer, and OsclIPSocketI::iObserver.

7.219.3.13 virtual void OsclSocketRequestAO::Success () [inline, protected, virtual]

Reimplemented in [OsclRecvRequest](#), [OsclRecvFromRequest](#), [OsclSendRequest](#), and [OsclSendToRequest](#).

7.219.4 Friends And Related Function Documentation

7.219.4.1 friend class OsclSocketI [friend]

7.219.4.2 friend class OsclSocketMethod [friend]

7.219.4.3 friend class OsclSocketRequest [friend]

7.219.5 Field Documentation

7.219.5.1 OsclSocketMethod& OsclSocketRequestAO::iContainer [protected]

Referenced by Alloc(), DoCancel(), Id(), RequestDone(), SocketI(), and SocketObserver().

7.219.5.2 SocketRequestParam* OsclSocketRequestAO::iParam [protected]

7.219.5.3 uint32 OsclSocketRequestAO::iParamSize [protected]

7.219.5.4 int32 OsclSocketRequestAO::iSocketError [protected]

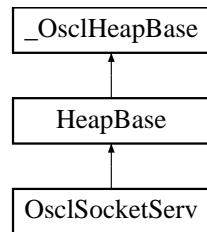
The documentation for this class was generated from the following file:

- [oscl_socket_method.h](#)

7.220 OsclSocketServ Class Reference

```
#include <oscl_socket.h>
```

Inheritance diagram for OsclSocketServ:



Public Member Functions

- OSCL_IMPORT_REF ~OsclSocketServ ()
- OSCL_IMPORT_REF int32 Connect (uint32 aMessageSlots=8, bool aShareSession=false)
- OSCL_IMPORT_REF void Close (bool aCleanup=true)

Static Public Member Functions

- static OSCL_IMPORT_REF OsclSocketServ * NewL (Oscl_DefAlloc &alloc)

Friends

- class OsclTCPSocket
- class OsclUDPSocket
- class OsclDNS

7.220.1 Member Function Documentation

7.220.1.1 static OSCL_IMPORT_REF OsclSocketServ* OsclSocketServ::NewL (Oscl_DefAlloc &alloc) [static]

Create a socket server. May leave if failure.

Parameters

alloc,: Memory allocator.

Returns

Returns pointer to socket server

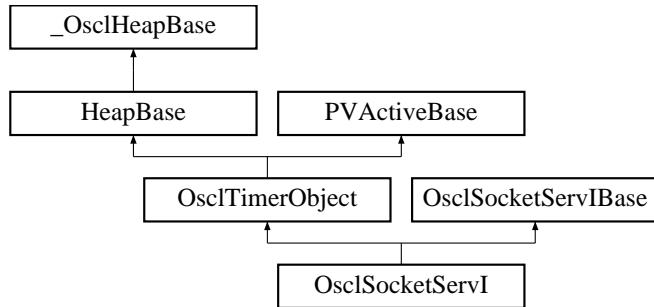
The documentation for this class was generated from the following file:

- [oscl_socket.h](#)

7.221 OsclSocketServI Class Reference

```
#include <oscl_socket_serv_imp_pv.h>
```

Inheritance diagram for OsclSocketServI:



Public Member Functions

- int32 [Connect](#) (uint32 aMessageSlots, bool aShareSession)
- void [Close](#) (bool)
- bool [IsServerThread](#) ()

Static Public Member Functions

- static [OsclSocketServI * NewL](#) ([Oscl_DefAlloc](#) &a)

Friends

- class [OsclSocketServRequestList](#)
- class [LoopbackSocket](#)
- class [OsclTCPSocketI](#)
- class [OsclUDPSocketI](#)
- class [OsclSocketI](#)
- class [OsclDNSI](#)
- class [OsclSocketRequest](#)
- class [OsclSocketServ](#)

7.221.1 Detailed Description

PV socket server implementation

7.221.2 Member Function Documentation

7.221.2.1 void OsclSocketServI::Close (bool) [virtual]

Implements [OsclSocketServIBase](#).

7.221.2.2 int32 OsclSocketServI::Connect (uint32 *aMessageSlots*, bool *aShareSession*) [virtual]

Implements [OsclSocketServIBase](#).

7.221.2.3 bool OsclSocketServI::IsServerThread ()

7.221.2.4 static OsclSocketServI* OsclSocketServI::NewL (Oscl_DefAlloc & *a*) [static]

7.221.3 Friends And Related Function Documentation

7.221.3.1 friend class LoopbackSocket [friend]

7.221.3.2 friend class OsclDNSI [friend]

7.221.3.3 friend class OsclSocketI [friend]

7.221.3.4 friend class OsclSocketRequest [friend]

7.221.3.5 friend class OsclSocketServ [friend]

7.221.3.6 friend class OsclSocketServRequestList [friend]

7.221.3.7 friend class OsclTCPSocketI [friend]

7.221.3.8 friend class OsclUDPSocketI [friend]

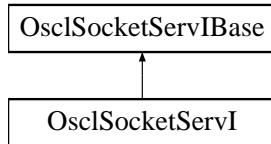
The documentation for this class was generated from the following file:

- [oscl_socket_serv_imp_pv.h](#)

7.222 OsclSocketServIBase Class Reference

```
#include <oscl_socket_serv_imp_base.h>
```

Inheritance diagram for OsclSocketServIBase:



Public Member Functions

- virtual ~OsclSocketServIBase ()
- virtual int32 Connect (uint32 aMessageSlots, bool aShareSession)=0
- virtual void Close (bool)=0

Data Fields

- PVLogger * iLogger

Protected Types

- enum TSocketServState { ESocketServ_Idle, ESocketServ_Connected, ESocketServ_Error }

Protected Member Functions

- OsclSocketServIBase (Oscl_DefAlloc &a)
- TSocketServState State () const
- bool IsServConnected () const

Protected Attributes

- Oscl_DefAlloc & iAlloc
- TSocketServState iServState
- int iServError

7.222.1 Detailed Description

Socket Server implementation Base class common to all implementations

7.222.2 Member Enumeration Documentation

7.222.2.1 enum OsclSocketServIBase::TSocketServState [protected]

Enumerator:

ESocketServ_Idle

ESocketServ_Connected
ESocketServ_Error

7.222.3 Constructor & Destructor Documentation

7.222.3.1 **virtual OsclSocketServIBase::~OsclSocketServIBase () [inline, virtual]**

7.222.3.2 **OsclSocketServIBase::OsclSocketServIBase (Oscl_DefAlloc & a) [inline, protected]**

References ESocketServ_Idle, iLogger, iServError, iServState, and NULL.

7.222.4 Member Function Documentation

7.222.4.1 **virtual void OsclSocketServIBase::Close (bool) [pure virtual]**

Implemented in [OsclSocketServI](#).

7.222.4.2 **virtual int32 OsclSocketServIBase::Connect (uint32 aMessageSlots, bool aShareSession) [pure virtual]**

Implemented in [OsclSocketServI](#).

7.222.4.3 **bool OsclSocketServIBase::IsServConnected () const [inline, protected]**

References ESocketServ_Connected, and iServState.

7.222.4.4 **TSocketServState OsclSocketServIBase::State () const [inline, protected]**

References iServState.

7.222.5 Field Documentation

7.222.5.1 **Oscl_DefAlloc& OsclSocketServIBase::iAlloc [protected]**

7.222.5.2 **PVLogger* OsclSocketServIBase::iLogger**

Referenced by OsclSocketServIBase().

7.222.5.3 **int OsclSocketServIBase::iServError [protected]**

Referenced by OsclSocketServIBase().

7.222.5.4 **TSocketServState OsclSocketServIBase::iServState [protected]**

Referenced by IsServConnected(), OsclSocketServIBase(), and State().

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

- [oscl_socket_serv_imp_base.h](#)

7.223 OsclSocketServRequestList Class Reference

```
#include <oscl_socket_serv_imp_reqlist.h>
```

Public Member Functions

- [OsclSocketServRequestList \(\)](#)
- void [Add \(OsclSocketRequest *\)](#)
- void [StartCancel \(OsclSocketRequest *\)](#)
- void [Open \(OsclSocketServI *s\)](#)
- void [Close \(\)](#)
- void [Wakeup \(\)](#)
- void [WaitOnRequests \(\)](#)
- void [Remove \(OsclSocketServRequestQElem *aElem\)](#)

Friends

- class [OsclSocketServI](#)

7.223.1 Detailed Description

PV socket server request queue

7.223.2 Constructor & Destructor Documentation

7.223.2.1 OsclSocketServRequestList::OsclSocketServRequestList ()

7.223.3 Member Function Documentation

7.223.3.1 void OsclSocketServRequestList::Add (OsclSocketRequest *)

7.223.3.2 void OsclSocketServRequestList::Close ()

7.223.3.3 void OsclSocketServRequestList::Open (OsclSocketServI * s)

7.223.3.4 void OsclSocketServRequestList::Remove (OsclSocketServRequestQElem * aElem) [[inline](#)]

References [OsclSocketServRequestQElem::iSocketRequest](#), and [NULL](#).

7.223.3.5 void OsclSocketServRequestList::StartCancel (OsclSocketRequest *)

7.223.3.6 void OsclSocketServRequestList::WaitOnRequests ()

7.223.3.7 void OsclSocketServRequestList::Wakeup ()

7.223.4 Friends And Related Function Documentation

7.223.4.1 friend class OsclSocketServI [friend]

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

- [oscl_socket_serv_imp_reqlist.h](#)

7.224 OsclSocketServRequestQElem Class Reference

```
#include <oscl_socket_serv_imp_reqlist.h>
```

Public Member Functions

- [OsclSocketServRequestQElem \(OsclSocketRequest *r\)](#)

Data Fields

- OsclSocketRequest * [iSocketRequest](#)
- uint8 [iSelect](#)
- bool [iCancel](#)

7.224.1 Constructor & Destructor Documentation

7.224.1.1 **OsclSocketServRequestQElem::OsclSocketServRequestQElem (OsclSocketRequest * r)**
[[inline](#)]

7.224.2 Field Documentation

7.224.2.1 **bool OsclSocketServRequestQElem::iCancel**

7.224.2.2 **uint8 OsclSocketServRequestQElem::iSelect**

7.224.2.3 **OsclSocketRequest* OsclSocketServRequestQElem::iSocketRequest**

Referenced by [OsclSocketServRequestList::Remove\(\)](#).

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

- [oscl_socket_serv_imp_reqlist.h](#)

7.225 OsclSocketTOS Class Reference

```
#include <oscl_socket_types.h>
```

Public Types

- enum **TPVServicePrecedence** {

 EPVRoutine = 0, **EPVPriority** = 1, **EPVImmediate** = 2, **EPVFlash** = 3,

 EPVOverrideFlash = 4, **EPVCritic_Ecp** = 5, **EPVInetControl** = 6, **EPVNetControl** = 7 }
- enum **TPVServicePriority** { **EPVNoTOS** = 0x0, **EPVLDelay** = (1 << 4), **EPVHiThrpt** = (1 << 3),
 EPVHiRel = (1 << 2) }

Public Member Functions

- **OsclSocketTOS** ()
- void **SetPrecedence** (**TPVServicePrecedence** aPrecedence)
- void **SetPriority** (bool aMinimizeDelay, bool aMaximizeThroughput, bool MaximizeReliability)
- void **ClearTOS** ()
- uint8 **GetTOS** () const

7.225.1 Member Enumeration Documentation

7.225.1.1 enum OsclSocketTOS::TPVServicePrecedence

Enumerator:

EPVRoutine
EPVPriority
EPVImmediate
EPVFlash
EPVOverrideFlash
EPVCritic_Ecp
EPVInetControl
EPVNetControl

7.225.1.2 enum OsclSocketTOS::TPVServicePriority

Enumerator:

EPVNoTOS
EPVLDelay
EPVHiThrpt
EPVHiRel

7.225.2 Constructor & Destructor Documentation

7.225.2.1 OsclSocketTOS::OsclSocketTOS () [inline]

References ClearTOS().

7.225.3 Member Function Documentation

7.225.3.1 void OsclSocketTOS::ClearTOS () [inline]

References EPVNoTOS, and EPVRoutine.

Referenced by OsclSocketTOS().

7.225.3.2 uint8 OsclSocketTOS::GetTOS () const [inline]

Format of Ip Header's TOS field as specified in RFC 791
0 1 2 3 4 5 6 7 +-----+-----+-----+-----+
+-----+-----+ | PRECEDENCE | D | T | R | 0 | 0 | +-----+-----+-----+-----+-----+-----+

7.225.3.3 void OsclSocketTOS::SetPrecedence (TPVServicePrecedence *aPrecedence*) [inline]

7.225.3.4 void OsclSocketTOS::SetPriority (bool *aMinimizeDelay*, bool *aMaximizeThroughput*, bool *MaximizeReliability*) [inline]

References EPVHiRel, EPVHiThrpt, EPVLDelay, and EPVNoTOS.

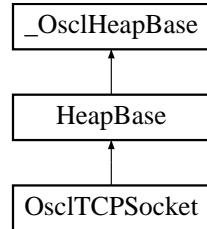
The documentation for this class was generated from the following file:

- [oscl_socket_types.h](#)

7.226 OsclTCPSocket Class Reference

```
#include <oscl_socket.h>
```

Inheritance diagram for OsclTCPSocket:



Public Member Functions

- OSCL_IMPORT_REF ~OsclTCPSocket ()
- OSCL_IMPORT_REF TPVSocketEvent ThreadLogoff ()
- OSCL_IMPORT_REF TPVSocketEvent ThreadLogon (OsclSocketServ &aServ, OsclSocketObserver *aObserver)
- OSCL_IMPORT_REF int32 Close ()
- OSCL_IMPORT_REF int32 Bind (OsclNetworkAddress &aAddress)
- OSCL_IMPORT_REF TPVSocketEvent BindAsync (OsclNetworkAddress &aAddress, int32 aTimeoutMsec=(-1))
- OSCL_IMPORT_REF void CancelBind ()
- OSCL_IMPORT_REF int32 SetOptionToReuseAddress ()
- OSCL_IMPORT_REF int32 SetTOS (const OsclSocketTOS &aTOS)
- OSCL_IMPORT_REF int32 GetPeerName (OsclNetworkAddress &aPeerName)
- OSCL_IMPORT_REF int32 Listen (int32 aQueueSize)
- OSCL_IMPORT_REF TPVSocketEvent ListenAsync (int32 aQueueSize, int32 aTimeoutMsec=(-1))
- OSCL_IMPORT_REF void CancelListen ()
- OSCL_IMPORT_REF OsclTCPSocket * GetAcceptedSocketL (uint32 aId)
- OSCL_IMPORT_REF uint8 * GetRecvData (int32 *aLength)
- OSCL_IMPORT_REF uint8 * GetSendData (int32 *aLength)
- OSCL_IMPORT_REF TPVSocketEvent Connect (OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void CancelConnect ()
- OSCL_IMPORT_REF TPVSocketEvent Shutdown (TPVSocketShutdown aHow, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void CancelShutdown ()
- OSCL_IMPORT_REF TPVSocketEvent Accept (int32 aTimeout=-1)
- OSCL_IMPORT_REF void CancelAccept ()
- OSCL_IMPORT_REF TPVSocketEvent Send (const uint8 *aPtr, uint32 aLen, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void CancelSend ()
- OSCL_IMPORT_REF TPVSocketEvent Recv (uint8 *aPtr, uint32 aMaxLen, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void CancelRecv ()

Static Public Member Functions

- static OSCL_IMPORT_REF OsclTCPSocket * NewL (Oscl_DefAlloc &alloc, OsclSocketServ &aServ, OsclSocketObserver *aObserver, uint32 aId)

7.226.1 Detailed Description

The TCP Socket class

7.226.2 Member Function Documentation

7.226.2.1 static OSCL_IMPORT_REF OsclTCPSocket* OsclTCPSocket::NewL (Oscl_DefAlloc &*alloc*, OsclSocketServ & *aServ*, OsclSocketObserver * *aObserver*, uint32 *aId*) [static]

Create a TCP Socket. May leave if failure.

Parameters

- alloc*,: Memory allocator.
- aServ*,: Socket server. Must be connected.
- aObserver*,: Socket observer.
- aId*,: Socket ID. The caller must assign an ID to each socket. The ID is used to identify the socket in observer callbacks.

Returns

Returns pointer to socket.

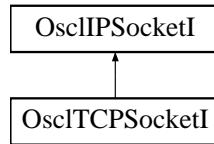
The documentation for this class was generated from the following file:

- [oscl_socket.h](#)

7.227 OsclTCPSocketI Class Reference

```
#include <oscl_tcp_socket.h>
```

Inheritance diagram for OsclTCPSocketI:



Public Member Functions

- virtual ~OsclTCPSocketI ()
- [TPVSocketEvent ThreadLogoff \(\)](#)
- [TPVSocketEvent ThreadLogon \(OsclSocketServI *aServ, OsclSocketObserver *aObserver\)](#)
- int32 [Close \(\)](#)
- int32 [Listen \(int aQueueSize\)](#)
- [OsclTCPSocketI * GetAcceptedSocketL \(uint32 aId\)](#)
- uint8 * [GetRecvData \(int32 *aLength\)](#)
- uint8 * [GetSendData \(int32 *aLength\)](#)
- [TPVSocketEvent BindAsync \(OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1\)](#)
- void [CancelBind \(\)](#)
- [TPVSocketEvent ListenAsync \(uint32 qsize, int32 aTimeoutMsec=-1\)](#)
- void [CancelListen \(\)](#)
- [TPVSocketEvent Connect \(OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1\)](#)
- void [CancelConnect \(\)](#)
- [TPVSocketEvent Shutdown \(TPVSocketShutdown aHow, int32 aTimeoutMsec=-1\)](#)
- void [CancelShutdown \(\)](#)
- [TPVSocketEvent Accept \(int32 aTimeout=-1\)](#)
- void [CancelAccept \(\)](#)
- [TPVSocketEvent Send \(const uint8 *&aPtr, uint32 aLen, int32 aTimeoutMsec=-1\)](#)
- void [CancelSend \(\)](#)
- [TPVSocketEvent Recv \(uint8 *&aPtr, uint32 aMaxLen, int32 aTimeoutMsec=-1\)](#)
- void [CancelRecv \(\)](#)

Static Public Member Functions

- static OsclTCPSocketI * [NewL \(Oscl_DefAlloc &a, OsclSocketServI *aServ, OsclSocketObserver *aObserver, uint32 aId\)](#)

7.227.1 Detailed Description

Internal implementation class for [OsclTCPSocket](#)

7.227.2 Constructor & Destructor Documentation

7.227.2.1 virtual OsclTCPSocketI::~OsclTCPSocketI () [virtual]

7.227.3 Member Function Documentation

7.227.3.1 TPVSocketEvent OsclTCPSocketI::Accept (int32 *aTimeout* = -1) [inline]

References OsclAcceptMethod::Accept(), EPVSocketFailure, and OsclIPSocketI::iObserver.

7.227.3.2 TPVSocketEvent OsclTCPSocketI::BindAsync (OsclNetworkAddress & *aAddress*, int32 *aTimeoutMsec* = -1) [inline]

References OsclBindMethod::Bind(), EPVSocketFailure, EPVSocketNotImplemented, OsclSocketIBase::HasAsyncBind(), OsclIPSocketI::iAddress, OsclIPSocketI::iObserver, OsclNetworkAddress::ipAddr, OsclNetworkAddress::port, OsclNameString< __len >::Set(), and OsclNameString< __len >::Str().

7.227.3.3 void OsclTCPSocketI::CancelAccept () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.4 void OsclTCPSocketI::CancelBind () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.5 void OsclTCPSocketI::CancelConnect () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.6 void OsclTCPSocketI::CancelListen () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.7 void OsclTCPSocketI::CancelRecv () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.8 void OsclTCPSocketI::CancelSend () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.9 void OsclTCPSocketI::CancelShutdown () [inline]

References OsclSocketMethod::CancelMethod().

7.227.3.10 int32 OsclTCPSocketI::Close () [virtual]

Implements [OsclIPSocketI](#).

7.227.3.11 TPVSocketEvent OsclTCPSocketI::Connect (OsclNetworkAddress & aAddress, int32 aTimeoutMsec = -1) [inline]

References [OsclConnectMethod::Connect\(\)](#), [EPVSocketFailure](#), and [OsclIPSocketI::iObserver](#).

7.227.3.12 OsclTCPSocketI* OsclTCPSocketI::GetAcceptedSocketL (uint32 aId)**7.227.3.13 uint8 * OsclTCPSocketI::GetRecvData (int32 * aLength) [inline, virtual]**

Implements [OsclIPSocketI](#).

References [OsclRecvMethod::GetRecvData\(\)](#).

7.227.3.14 uint8 * OsclTCPSocketI::GetSendData (int32 * aLength) [inline, virtual]

Implements [OsclIPSocketI](#).

References [OsclSendMethod::GetSendData\(\)](#).

7.227.3.15 int32 OsclTCPSocketI::Listen (int aQueueSize) [inline]

References [OsclIPSocketI::iSocket](#), and [OsclSocketI::Listen\(\)](#).

7.227.3.16 TPVSocketEvent OsclTCPSocketI::ListenAsync (uint32 qsize, int32 aTimeoutMsec = -1) [inline]

References [EPVSocketFailure](#), [EPVSocketNotImplemented](#), [OsclSocketIBase::HasAsyncListen\(\)](#), [OsclIPSocketI::iObserver](#), and [OsclListenMethod::Listen\(\)](#).

7.227.3.17 static OsclTCPSocketI* OsclTCPSocketI::NewL (Oscl_DefAlloc & a, OsclSocketServI * aServ, OsclSocketObserver * aObserver, uint32 aId) [static]**7.227.3.18 TPVSocketEvent OsclTCPSocketI::Recv (uint8 *& aPtr, uint32 aMaxLen, int32 aTimeoutMsec = -1) [inline]**

References [EPVSocketFailure](#), [OsclIPSocketI::iObserver](#), and [OsclRecvMethod::Recv\(\)](#).

7.227.3.19 TPVSocketEvent OsclTCPSocketI::Send (const uint8 *& aPtr, uint32 aLen, int32 aTimeoutMsec = -1) [inline]

References [EPVSocketFailure](#), [OsclIPSocketI::iObserver](#), and [OsclSendMethod::Send\(\)](#).

7.227.3.20 TPVSocketEvent OsclTCPSocketI::Shutdown (TPVSocketShutdown *aHow*, int32 *aTimeoutMsec* = -1) [inline]

References EPVSocketFailure, OsclIPSocketI::iObserver, and OsclShutdownMethod::Shutdown().

7.227.3.21 TPVSocketEvent OsclTCPSocketI::ThreadLogoff ()

Reimplemented from [OsclIPSocketI](#).

7.227.3.22 TPVSocketEvent OsclTCPSocketI::ThreadLogon (OsclSocketServI * *aServ*, OsclSocketObserver * *aObserver*)

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

- [oscl_tcp_socket.h](#)

7.228 OsclThread Class Reference

```
#include <oscl_thread.h>
```

Public Member Functions

- OSCL_IMPORT_REF OsclThread ()
- OSCL_IMPORT_REF ~OsclThread ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Create (TOsclThreadFuncPtr func, int32 stack_size, TOsclThreadFuncArg argument, OsclThread_State state=Start_on_creation, bool oIsJoinable=false)
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError GetPriority (OsclThreadPriority &refThreadPriority)
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError SetPriority (OsclThreadPriority ePriority)
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Suspend ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Resume ()
- OSCL_IMPORT_REF OsclProcStatus::eOsclProcError Terminate (OsclAny *exitcode)
- OSCL_IMPORT_REF TOsclThreadTerminate CanTerminate ()

Static Public Member Functions

- static OSCL_IMPORT_REF void Exit (OsclAny *exitcode)
- static OSCL_IMPORT_REF OsclProcStatus::eOsclProcError GetId (TOsclThreadId &refThreadId)
- static OSCL_IMPORT_REF bool CompareId (TOsclThreadId &t1, TOsclThreadId &t2)
- static OSCL_IMPORT_REF void SleepMillisec (const int32 msec)

7.228.1 Detailed Description

Thread Class. A subset of Thread APIs. It implements platform independent APIs for thread creation, exiting, suspend, resume, priority and termination. With the use of proper defines it implements the basic thread features. It provides an opaque layer through which user doesn't need to worry about OS specific data.

7.228.2 Constructor & Destructor Documentation

7.228.2.1 OSCL_IMPORT_REF OsclThread::OsclThread ()

Class constructor

7.228.2.2 OSCL_IMPORT_REF OsclThread::~OsclThread ()

Class destructor

7.228.3 Member Function Documentation

7.228.3.1 OSCL_IMPORT_REF TOsclThreadTerminate OsclThread::CanTerminate ()

Tell if thread terminate will do join, immediate hard kill, or NOP.

Returns

Terminate behavior.

7.228.3.2 static OSCL_IMPORT_REF bool OsclThread::CompareId (TOsclThreadId & *t1*, TOsclThreadId & *t2*) [static]

Static routine to compare whether two thread ID's are equal.

Parameters

t1,t2: thread ID passed by the application

Returns

true if equal.

7.228.3.3 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::Create (TOsclThreadFuncPtr *func*, int32 *stack_size*, TOsclThreadFuncArg *argument*, OsclThread_State *state* = Start_on_creation, bool *oIsJoinable* = false)

This routine will create a thread. The thread may be launched immediately or may be created in a suspended state and launched with a Resume call.

Parameters

func = Name of the thread Function
stack_size = Size of the thread stack. If zero, then the platform-specific default stack size will be used.
argument = Argument to be passed to thread function
state = Enumeration which specifies the state of the thread on creation with values Running and Suspend. Note: the Suspend option may not be available on all platforms. If it is not supported, the Create call will return INVALID_PARAM_ERROR.
oIsJoinable = A boolean, which when set to true, creates a Joinable thread. The default value for this is false, which creates a Detached thread.
Note 1: When a joinable thread is created, it is imperative to call thread Terminate. Otherwise, it would cause a memory leak.
Note 2: This is currently available only for platforms that have support for pthreads.

Returns

eOsclProcError

7.228.3.4 static OSCL_IMPORT_REF void OsclThread::Exit (OsclAny * *exitcode*) [static]

Exit is a static function which is used to end the current thread. When called it just ends the execution of the current thread. Note: on some platforms this may be a NOP.

Parameters

exitcode = Exitcode of the thread. This can be used by other threads to know the exit status of this thread.

Returns

None

**7.228.3.5 static OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::GetId
(TOsclThreadId & refThreadId) [static]**

Static routine to retrieve ID of calling thread.

Parameters

Thread ID passed by the application

Returns

Error code

**7.228.3.6 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::GetPriority
(OsclThreadPriority & refThreadPriority)**

GetThreadPriority gets the priority of the thread. It takes reference of the input argument and assigns priority to it from one of the already defined priorities.

Parameters

int16& refThreadPriority : Output Priority value

Returns

Error code

7.228.3.7 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::Resume ()

ResumeThread resumes the suspended thread and brings it into execution.

Parameters

None

Returns

Error code Note: this function may not be supported on all platforms, and may return NOT_IMPLEMENTED.

**7.228.3.8 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::SetPriority
(OsclThreadPriority *ePriority*)**

SetThreadPriority sets the priority of the thread. It takes priority as the input argument and assigns it to the thread referred.

Parameters

ePriorityLevel : Input Priority value

Returns

Error code Note: this function may not be supported on all platforms, and may return NOT_IMPLEMENTED.

**7.228.3.9 static OSCL_IMPORT_REF void OsclThread::SleepMillisec (const int32 msec)
[static]**

Suspend current thread execution for specified time.

Parameters

msec,*t2*,: sleep time in milliseconds.

7.228.3.10 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::Suspend ()

This API suspends the thread being referred. The thread can later be brought into execution by calling OSCL_ResumeThread() on it.

Parameters

None

Returns

Error code Note: this function may not be supported on all platforms, and may return NOT_IMPLEMENTED.

**7.228.3.11 OSCL_IMPORT_REF OsclProcStatus::eOsclProcError OsclThread::Terminate
(OsclAny * *exitcode*)**

Terminate a thread other than the calling thread.

This API may have multiple behaviors. It may do a hard kill, a "join" operation, or a do-nothing. Caller can use CanTerminate option to tell the behavior in advance.

Parameters

exitcode = Exitcode of the thread.

Returns

Error code

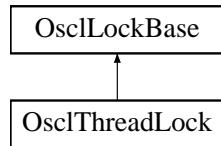
The documentation for this class was generated from the following file:

- [oscl_thread.h](#)

7.229 OsclThreadLock Class Reference

```
#include <oscl_mutex.h>
```

Inheritance diagram for OsclThreadLock:



Public Member Functions

- OSCL_IMPORT_REF OsclThreadLock ()
- virtual OSCL_IMPORT_REF ~OsclThreadLock ()
- OSCL_IMPORT_REF void Lock ()
- OSCL_IMPORT_REF void Unlock ()

7.229.1 Detailed Description

An implementation of [OsclLockBase](#) using a mutex

7.229.2 Constructor & Destructor Documentation

7.229.2.1 OSCL_IMPORT_REF OsclThreadLock::OsclThreadLock ()

7.229.2.2 virtual OSCL_IMPORT_REF OsclThreadLock::~OsclThreadLock () [virtual]

7.229.3 Member Function Documentation

7.229.3.1 OSCL_IMPORT_REF void OsclThreadLock::Lock () [virtual]

Implements [OsclLockBase](#).

7.229.3.2 OSCL_IMPORT_REF void OsclThreadLock::Unlock () [virtual]

Implements [OsclLockBase](#).

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

- [oscl_mutex.h](#)

7.230 OsclTickCount Class Reference

```
#include <oscl_tickcount.h>
```

Static Public Member Functions

- static uint32 [TickCount \(\)](#)
- static uint32 [TickCountFrequency \(\)](#)
- static uint32 [TickCountPeriod \(\)](#)
- static uint32 [TicksToMsec \(uint32 ticks\)](#)
- static uint32 [MsecToTicks \(uint32 msec\)](#)

7.230.1 Detailed Description

[OsclTickCount](#) class is used to retrieve the system tick count and the tick counter's frequency.

The maximum tick count value is equivalent to the maximum uint32 value.

7.230.2 Member Function Documentation

7.230.2.1 static uint32 OsclTickCount::MsecToTicks (uint32 *msec*) [static]

This function converts milliseconds to ticks

Returns

ticks

7.230.2.2 static uint32 OsclTickCount::TickCount () [static]

This function returns the current system tick count

Returns

returns the tick count

Referenced by [OsclTimer< Alloc >::Request\(\)](#), and [OsclTimer< Alloc >::TimerBaseElapsed\(\)](#).

7.230.2.3 static uint32 OsclTickCount::TickCountFrequency () [static]

This function returns the tick frequency in ticks per second

Returns

ticks per second

7.230.2.4 static uint32 OsclTickCount::TickCountPeriod () [static]

This function returns the tick period in microseconds per tick

Returns

microseconds per tick

Referenced by OsclTimer< Alloc >::SetExactFrequency(), and OsclTimer< Alloc >::SetFrequency().

7.230.2.5 static uint32 OsclTickCount::TicksToMsec (uint32 *ticks*) [static]

This function converts ticks to milliseconds

Returns

milliseconds

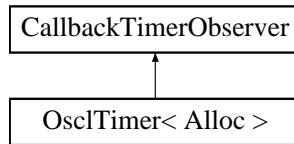
The documentation for this class was generated from the following file:

- [oscl_tickcount.h](#)

7.231 OsclTimer< Alloc > Class Template Reference

```
#include <oscl_timer.h>
```

Inheritance diagram for OsclTimer< Alloc >:



Data Structures

- struct `_TimerEntry`

Public Types

- typedef `CallbackTimer< Alloc > callback_timer_type`

Public Member Functions

- `OsclTimer (const char *name, uint32 frequency=1, int32 priority=OsclActiveObject::EPriorityNominal)`
- virtual `~OsclTimer ()`
- void `SetObserver (OsclTimerObserver *obs)`
- void `SetFrequency (uint32 frequency)`
- void `SetExactFrequency (uint32 frequency)`
- void `Request (int32 timerID, int32 timeoutInfo, int32 cycles, OsclTimerObserver *obs=0, bool recurring=0)`
- void `Cancel (int32 timerID, int32 timeoutInfo=-1)`
- void `Clear ()`

Protected Member Functions

- void `TimerBaseElapsed ()`

Friends

- class `CallbackTimer< Alloc >`

```
template<class Alloc> class OsclTimer< Alloc >
```

7.231.1 Member Typedef Documentation

7.231.1.1 **template<class Alloc > typedef CallbackTimer<Alloc> OsclTimer< Alloc >::callback_timer_type**

7.231.2 Constructor & Destructor Documentation

7.231.2.1 **template<class Alloc > OsclTimer< Alloc >::OsclTimer (const char * *name*, uint32 *frequency* = 1, int32 *priority* = OsclActiveObject::EPriorityNominal) [inline]**

Constructor

Parameters

frequency The frequency of the timer in cycles/second. A value of 1 means the timer will cycle in 1 second intervals.

References OSCL_LEAVE, OSCL_PLACEMENT_NEW, OsclErrArgument, and OsclTimer< Alloc >::SetFrequency().

7.231.2.2 **template<class Alloc > OsclTimer< Alloc >::~OsclTimer () [inline, virtual]**

References Oscl_Vector< T, Alloc >::begin(), OsclTimerObject::Cancel(), Oscl_TAlloc< T, Alloc >::deallocate(), Oscl_Vector< T, Alloc >::end(), and NULL.

7.231.3 Member Function Documentation

7.231.3.1 **template<class Alloc > void OsclTimer< Alloc >::Cancel (int32 *timerID*, int32 *timeoutInfo* = -1) [inline]**

Cancel a timer

Parameters

timerID used to identify the timer to cancel.

timeoutInfo if not set to -1, this value will be used as additional matching criteria to cancel a timer.

References Oscl_Vector< T, Alloc >::begin(), Oscl_TAlloc< T, Alloc >::deallocate(), Oscl_Vector< T, Alloc >::end(), Oscl_Vector< T, Alloc >::erase(), and Oscl_Vector< T, Alloc >::push_back().

Referenced by OsclTimer< Alloc >::TimerBaseElapsed().

7.231.3.2 **template<class Alloc > void OsclTimer< Alloc >::Clear () [inline]**

Cancel all pending timers.

References Oscl_Vector< T, Alloc >::begin(), Oscl_Vector< T, Alloc >::clear(), Oscl_TAlloc< T, Alloc >::deallocate(), and Oscl_Vector< T, Alloc >::end().

7.231.3.3 template<class Alloc > void OsclTimer< Alloc >::Request (int32 *timerID*, int32 *timeoutInfo*, int32 *cycles*, OsclTimerObserver * *obs* = 0, bool *recurring* = 0) [inline]

Request a timer

Parameters

timerID used to identify the timer for cancellation. This value will be returned as part of the timeout event.

timeoutInfo for user info. Returned to the observer on a timeout event

cycles the number of cycles to wait before a timeout event. If the timer frequency is 1 and the cycles are set to 2, then the timeout event will occur in 2 seconds.

obs a local observer object to be called on a timeout event. This observer overrides the global observer if set.

References Oscl_Vector< T, Alloc >::push_back(), OsclTimerObject::RunIfNotReady(), and OsclTickCount::TickCount().

Referenced by OsclTimer< Alloc >::TimerBaseElapsed().

7.231.3.4 template<class Alloc > void OsclTimer< Alloc >::SetExactFrequency (uint32 *frequency*) [inline]

Set the exact frequency of the timer in microsecond.

Parameters

frequency A value of 1 means the timer will cycle in one microsecond intervals, 1000 means millisecond intervals, etc.

References OsclTickCount::TickCountPeriod().

7.231.3.5 template<class Alloc > void OsclTimer< Alloc >::SetFrequency (uint32 *frequency*) [inline]

Set the frequency of the timer in cycles/second.

Parameters

frequency A value of 1 means the timer will cycle in one second intervals, 1000 means millisecond intervals, etc.

References OsclTickCount::TickCountPeriod().

Referenced by OsclTimer< Alloc >::OsclTimer().

7.231.3.6 template<class Alloc > void OsclTimer< Alloc >::SetObserver (OsclTimerObserver * *obs*) [inline]

Set the global observer. Each timer can request a local observer, which if set overrides the global observer.

Parameters

obs observer object.

7.231.3.7 template<class Alloc > void OsclTimer< Alloc >::TimerBaseElapsed () [inline, protected, virtual]

Implements [CallbackTimerObserver](#).

References `Oscl_Vector< T, Alloc >::begin()`, `OsclTimer< Alloc >::Cancel()`, `Oscl_Vector< T, Alloc >::clear()`, `Oscl_TAlloc< T, Alloc >::deallocate()`, `Oscl_Vector_Base::empty()`, `Oscl_Vector< T, Alloc >::end()`, `Oscl_Vector< T, Alloc >::erase()`, `OSCL_ABS`, `OSCL_MAX`, `OsclTimer< Alloc >::Request()`, `OsclTimerObject::RunIfNotReady()`, `OsclTickCount::TickCount()`, and `OsclTimerObserver::TimeoutOccurred()`.

7.231.4 Friends And Related Function Documentation

7.231.4.1 template<class Alloc > friend class CallbackTimer< Alloc > [friend]

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

- [oscl_timer.h](#)

7.232 OsclTimerCompare Class Reference

```
#include <oscl_scheduler_readyq.h>
```

Static Public Member Functions

- static int [compare \(TOsclReady &a, TOsclReady &b\)](#)

7.232.1 Member Function Documentation

7.232.1.1 static int OsclTimerCompare::compare (TOsclReady & a, TOsclReady & b) [static]

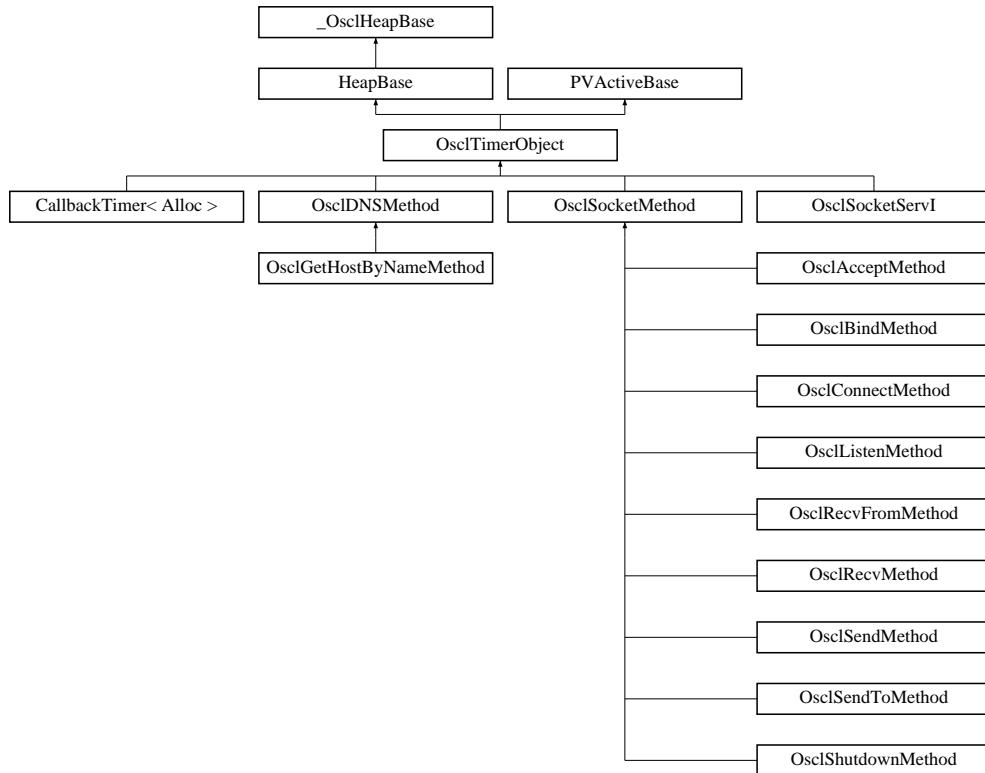
The documentation for this class was generated from the following file:

- [oscl_scheduler_readyq.h](#)

7.233 OsclTimerObject Class Reference

```
#include <oscl_scheduler_ao.h>
```

Inheritance diagram for OsclTimerObject:



Public Member Functions

- `OSCL_IMPORT_REF OsclTimerObject (int32 aPriority, const char name[])`
- `virtual OSCL_IMPORT_REF ~OsclTimerObject ()`
- `OSCL_IMPORT_REF void AddToScheduler ()`
- `OSCL_IMPORT_REF void RemoveFromScheduler ()`
- `OSCL_IMPORT_REF void After (int32 aDelayMicrosec)`
- `OSCL_IMPORT_REF void RunIfNotReady (uint32 aDelayMicrosec=0)`
- `OSCL_IMPORT_REF void SetBusy ()`
- `OSCL_IMPORT_REF bool IsBusy () const`
- `OSCL_IMPORT_REF void Cancel ()`
- `OSCL_IMPORT_REF int32 Priority () const`
- `OSCL_IMPORT_REF int32 Status () const`
- `OSCL_IMPORT_REF void SetStatus (int32)`
- `OSCL_IMPORT_REF OsclAOStatus & StatusRef ()`

Protected Member Functions

- `virtual OSCL_IMPORT_REF void DoCancel ()`
- `virtual OSCL_IMPORT_REF int32 RunError (int32 aError)`

7.233.1 Detailed Description

User base class for execution objects. [OsclTimerObject](#) defines an exec object with a timer.

7.233.2 Constructor & Destructor Documentation

7.233.2.1 OSCL_IMPORT_REF OsclTimerObject::OsclTimerObject (int32 *aPriority*, const char *name*[])

Constructor.

Parameters

aPriority (input param): scheduling priority

name (input param): optional name for this AO.

7.233.2.2 virtual OSCL_IMPORT_REF OsclTimerObject::~OsclTimerObject () [virtual]

Destructor.

7.233.3 Member Function Documentation

7.233.3.1 OSCL_IMPORT_REF void OsclTimerObject::AddToScheduler ()

Add this AO to the current thread's scheduler.

Reimplemented from [PVActiveBase](#).

Referenced by [CallbackTimer< Alloc >::CallbackTimer\(\)](#).

7.233.3.2 OSCL_IMPORT_REF void OsclTimerObject::After (int32 *aDelayMicrosec*)

'After' sets the request ready, with request status OSCL_REQUEST_STATUS_PENDING, and starts a timer. When the timer expires, the request will complete with status OSCL_REQUEST_ERR_NONE. Must be called from the same thread in which the active object is scheduled. Will leave if the request is already readied, the object is not added to any scheduler, or the calling thread does not match the scheduling thread.

Parameters

anInterval,: timeout interval in microseconds.

7.233.3.3 OSCL_IMPORT_REF void OsclTimerObject::Cancel ()

Cancel any active request. If the request is pending, this will call the DoCancel routine, wait for the request to cancel, then set the request idle. The AO will not run. If the request is not active, it does nothing. Request must be canceled from the same thread in which it is scheduled.

Reimplemented from [PVActiveBase](#).

Referenced by [OsclSocketMethod::Abort\(\)](#), and [OsclTimer< Alloc >::~OsclTimer\(\)](#).

7.233.3.4 OSCL_IMPORT_REF void OsclTimerObject::DoCancel () [protected, virtual]

Cancel request handler. This gets called by scheduler when the request is cancelled. The default routine will cancel the timer. If any additional action is needed, the derived class may override this. If the derived class does override this, it should explicitly call [OsclTimerObject::DoCancel](#) in its own DoCancel routine.

Implements [PVActiveBase](#).

7.233.3.5 OSCL_IMPORT_REF bool OsclTimerObject::IsBusy () const

Return true if this AO is active, false otherwise.

7.233.3.6 OSCL_IMPORT_REF int32 OsclTimerObject::Priority () const

Return scheduling priority of this exec object.

7.233.3.7 OSCL_IMPORT_REF void OsclTimerObject::RemoveFromScheduler ()

Remove this AO from its scheduler. Will leave if the calling thread context does not match the scheduling thread. Cancels any pending request before removing.

Reimplemented from [PVActiveBase](#).

Referenced by [CallbackTimer< Alloc >::~CallbackTimer\(\)](#).

7.233.3.8 virtual OSCL_IMPORT_REF int32 OsclTimerObject::RunError (int32 *aError*) [protected, virtual]

Run Leave handler. This gets called by scheduler when the Run routine leaves. The default implementation simply returns the leave code. If the derived class wants to handle errors from Run, it may override this. The ExecError should return OsclErrNone if it handles the error, otherwise it should return the input error code.

Parameters

aError: the leave code generated by the Run.

Implements [PVActiveBase](#).

7.233.3.9 OSCL_IMPORT_REF void OsclTimerObject::RunIfNotReady (uint32 *aDelayMicrosec* = 0)

Complete the request after a time interval. RunIfNotReady is identical to [After\(\)](#) except that it first checks the request status, and if it is already readied, it does nothing.

Parameters

aDelayMicrosec (input param): delay in microseconds.

Referenced by [OsclTimer< Alloc >::Request\(\)](#), and [OsclTimer< Alloc >::TimerBaseElapsed\(\)](#).

7.233.3.10 OSCL_IMPORT_REF void OsclTimerObject::SetBusy ()

Set request ready for this AO. Will leave if the request is already readied, or the exec object is not added to any scheduler, or the calling thread context does not match the scheduler thread.

7.233.3.11 OSCL_IMPORT_REF void OsclTimerObject::SetStatus (int32)**7.233.3.12 OSCL_IMPORT_REF int32 OsclTimerObject::Status () const**

Request status access

Referenced by `CallbackTimer< Alloc >::Run()`.

7.233.3.13 OSCL_IMPORT_REF OsclAOStatus& OsclTimerObject::StatusRef ()

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

- [oscl_scheduler_ao.h](#)

7.234 OsclTimerObserver Class Reference

```
#include <oscl_timer.h>
```

Public Member Functions

- virtual void [TimeoutOccurred](#) (int32 timerID, int32 timeoutInfo)=0
- virtual [~OsclTimerObserver](#) ()

7.234.1 Detailed Description

The observer class to receive timeout callbacks

7.234.2 Constructor & Destructor Documentation

7.234.2.1 virtual OsclTimerObserver::[~OsclTimerObserver](#) () [inline, virtual]

7.234.3 Member Function Documentation

7.234.3.1 virtual void OsclTimerObserver::[TimeoutOccurred](#) (int32 *timerID*, int32 *timeoutInfo*) [pure virtual]

This function will be called when the timer associated with this observer is executed

Parameters

timerID The ID given at timer request.

timeoutInfo Any extra info given at timer request.

Referenced by OsclTimer< Alloc >::TimerBaseElapsed().

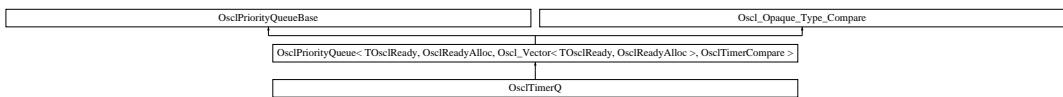
The documentation for this class was generated from the following file:

- [oscl_timer.h](#)

7.235 OsclTimerQ Class Reference

```
#include <oscl_scheduler_readyq.h>
```

Inheritance diagram for OsclTimerQ:



Public Member Functions

- void [Construct](#) (int)
- void [Add](#) ([TOsclReady](#))
- void [Remove](#) ([TOsclReady](#))
- [TOsclReady](#) [PopTop](#) ()
- [TOsclReady](#) [Top](#) ()
- void [Pop](#) ([TOsclReady](#))
- bool [IsIn](#) ([TOsclReady](#))

7.235.1 Member Function Documentation

7.235.1.1 void OsclTimerQ::Add (TOsclReady)

7.235.1.2 void OsclTimerQ::Construct (int)

7.235.1.3 bool OsclTimerQ::IsIn (TOsclReady)

7.235.1.4 void OsclTimerQ::Pop (TOsclReady)

7.235.1.5 TOsclReady OsclTimerQ::PopTop ()

7.235.1.6 void OsclTimerQ::Remove (TOsclReady)

7.235.1.7 TOsclReady OsclTimerQ::Top ()

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

- [oscl_scheduler_readyq.h](#)

7.236 OsclTLS< T, ID, Registry > Class Template Reference

```
#include <oscl_tls.h>
```

Public Member Functions

- [OsclTLS \(\)](#)
- [~OsclTLS \(\)](#)
- [T & operator* \(\) const](#)

The indirection operator () accesses a value indirectly, through a pointer.*

- [T * operator-> \(\) const](#)

The indirection operator (->) accesses a value indirectly, through a pointer.

- [bool set \(\)](#)

set() method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

Protected Attributes

- [T * _Ptr](#)

template<class T, uint32 ID, class Registry = OsclTLSRegistry> class OsclTLS< T, ID, Registry >

7.236.1 Constructor & Destructor Documentation

7.236.1.1 template<class T , uint32 ID, class Registry = OsclTLSRegistry> OsclTLS< T, ID, Registry >::OsclTLS () [inline]

References OsclTLS< T, ID, Registry >::_Ptr, and OSCL_STATIC_CAST.

7.236.1.2 template<class T , uint32 ID, class Registry = OsclTLSRegistry> OsclTLS< T, ID, Registry >::~OsclTLS () [inline]

7.236.2 Member Function Documentation

7.236.2.1 template<class T , uint32 ID, class Registry = OsclTLSRegistry> T& OsclTLS< T, ID, Registry >::operator* () const [inline]

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclTLS](#) can be used like the regular pointer that it was initialized with.

References OsclTLS< T, ID, Registry >::_Ptr.

7.236.2.2 template<class T , uint32 ID, class Registry = OsclTLSRegistry> T* OsclTLS< T, ID, Registry >::operator-> () const [inline]

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclTLS](#) can be used like the regular pointer that it was initialized with.
References [OsclTLS< T, ID, Registry >::_Ptr](#).

7.236.2.3 template<class T , uint32 ID, class Registry = OsclTLSRegistry> bool OsclTLS< T, ID, Registry >::set () [inline]

[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

References [OsclTLS< T, ID, Registry >::_Ptr](#), and [OSCL_STATIC_CAST](#).

7.236.3 Field Documentation

7.236.3.1 template<class T , uint32 ID, class Registry = OsclTLSRegistry> T* OsclTLS< T, ID, Registry >::_Ptr [protected]

Referenced by [OsclTLS< T, ID, Registry >::operator*\(\)](#), [OsclTLS< T, ID, Registry >::operator->\(\)](#), [OsclTLS< T, ID, Registry >::OsclTLS\(\)](#), and [OsclTLS< T, ID, Registry >::set\(\)](#).

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

- [oscl_tls.h](#)

7.237 OsclTLSEEx< T, ID, Registry > Class Template Reference

```
#include <oscl_error.h>
```

Public Member Functions

- [OsclTLSEEx \(\)](#)
- [~OsclTLSEEx \(\)](#)
- [T & operator* \(\) const](#)

The indirection operator () accesses a value indirectly, through a pointer.*

- [T * operator-> \(\) const](#)

The indirection operator (->) accesses a value indirectly, through a pointer.

- [bool set \(\)](#)

set() method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

Protected Attributes

- [T * _Ptr](#)

```
template<class T, uint32 ID, class Registry = OsclTLSRegistryEx> class OsclTLSEEx< T, ID, Registry >
```

7.237.1 Constructor & Destructor Documentation

7.237.1.1 [template<class T , uint32 ID, class Registry = OsclTLSRegistryEx> OsclTLSEEx< T, ID, Registry >::OsclTLSEEx \(\) \[inline\]](#)

7.237.1.2 [template<class T , uint32 ID, class Registry = OsclTLSRegistryEx> OsclTLSEEx< T, ID, Registry >::~OsclTLSEEx \(\) \[inline\]](#)

7.237.2 Member Function Documentation

7.237.2.1 [template<class T , uint32 ID, class Registry = OsclTLSRegistryEx> T& OsclTLSEEx< T, ID, Registry >::operator* \(\) const \[inline\]](#)

The indirection operator (*) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclTLS](#) can be used like the regular pointer that it was initialized with.

References [OsclTLSEEx< T, ID, Registry >::_Ptr](#).

7.237.2.2 [template<class T , uint32 ID, class Registry = OsclTLSRegistryEx> T* OsclTLSEEx< T, ID, Registry >::operator-> \(\) const \[inline\]](#)

The indirection operator (->) accesses a value indirectly, through a pointer.

This operator ensures that the [OsclTLS](#) can be used like the regular pointer that it was initialized with.

References OsclTLSEEx< T, ID, Registry >::_Ptr.

7.237.2.3 template<class T , uint32 ID, class Registry = OsclTLSRegistryEx> bool OsclTLSEEx< T, ID, Registry >::set () [inline]

[set\(\)](#) method sets ownership to the pointer, passed. This method is needed when the class is created with a default constructor. Returns false in case the class is non-empty.

References OsclTLSEEx< T, ID, Registry >::_Ptr, and OSCL_STATIC_CAST.

7.237.3 Field Documentation

7.237.3.1 template<class T , uint32 ID, class Registry = OsclTLSRegistryEx> T* OsclTLSEEx< T, ID, Registry >::_Ptr [protected]

Referenced by OsclTLSEEx< T, ID, Registry >::operator*(), OsclTLSEEx< T, ID, Registry >::operator->(), and OsclTLSEEx< T, ID, Registry >::set().

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

- [oscl_error.h](#)

7.238 OsclTLSRegistry Class Reference

```
#include <oscl_tls.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF [OsclAny](#) * [getInstance](#) (uint32 ID, int32 &error)
- static OSCL_IMPORT_REF void [registerInstance](#) ([OsclAny](#) *ptr, uint32 ID, int32 &error)

Friends

- class [OsclBase](#)

7.238.1 Member Function Documentation

7.238.1.1 static OSCL_IMPORT_REF OsclAny* OsclTLSRegistry::getInstance (uint32 *ID*, int32 &*error*) [static]

7.238.1.2 static OSCL_IMPORT_REF void OsclTLSRegistry::registerInstance (OsclAny **ptr*, uint32 *ID*, int32 &*error*) [static]

7.238.2 Friends And Related Function Documentation

7.238.2.1 friend class OsclBase [friend]

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

- [oscl_tls.h](#)

7.239 OsclTLSRegistryEx Class Reference

```
#include <oscl_error.h>
```

Static Public Member Functions

- static [OsclAny * getInstance \(uint32 ID\)](#)
- static void [registerInstance \(OsclAny *ptr, uint32 ID\)](#)

7.239.1 Member Function Documentation

7.239.1.1 static OsclAny* OsclTLSRegistryEx::getInstance (uint32 ID) [inline, static]

References OsclError::Leave(), and OSCL_ASSERT.

7.239.1.2 static void OsclTLSRegistryEx::registerInstance (OsclAny * ptr, uint32 ID) [inline, static]

References OsclError::Leave(), and OSCL_ASSERT.

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

- [oscl_error.h](#)

7.240 OsclTrapItem Class Reference

```
#include <oscl_heapbase.h>
```

Public Member Functions

- OSCL_INLINE OsclTrapItem (OsclTrapOperation anOperation)
- OSCL_INLINE OsclTrapItem (OsclTrapOperation anOperation, OsclAny *aPtr)

Friends

- class OsclTrapStackItem
- class OsclTrapStack

7.240.1 Constructor & Destructor Documentation

7.240.1.1 OSCL_INLINE OsclTrapItem::OsclTrapItem (OsclTrapOperation *anOperation*)

7.240.1.2 OSCL_INLINE OsclTrapItem::OsclTrapItem (OsclTrapOperation *anOperation*, OsclAny * *aPtr*)

7.240.2 Friends And Related Function Documentation

7.240.2.1 friend class OsclTrapStack [friend]

7.240.2.2 friend class OsclTrapStackItem [friend]

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

- oscl_heapbase.h

7.241 OsclTrapStack Class Reference

```
#include <oscl_error_trapcleanup.h>
```

Friends

- class [OsclError](#)
- class [OsclErrorTrap](#)
- class [OsclErrorTrapImp](#)

7.241.1 Detailed Description

A common type for cleanup stack and trap mark stack. for internal use only.

7.241.2 Friends And Related Function Documentation

7.241.2.1 friend class OsclError [friend]

7.241.2.2 friend class OsclErrorTrap [friend]

7.241.2.3 friend class OsclErrorTrapImp [friend]

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

- [oscl_error_trapcleanup.h](#)

7.242 OsclTrapStackItem Class Reference

```
#include <oscl_error_trapcleanup.h>
```

Public Member Functions

- [OsclTrapStackItem \(\)](#)
- [OsclTrapStackItem \(_OsclHeapBase *aCBase\)](#)
- [OsclTrapStackItem \(OsclAny *aTAny\)](#)
- [OsclTrapStackItem \(OsclTrapItem aItem\)](#)

Data Fields

- [_OsclHeapBase * iCBase](#)
- [OsclAny * iTAny](#)
- [OsclTrapOperation iTrapOperation](#)
- [OsclTrapStackItem * iNext](#)

7.242.1 Detailed Description

Internal cleanup stack item type.

7.242.2 Constructor & Destructor Documentation

7.242.2.1 [OsclTrapStackItem::OsclTrapStackItem \(\) \[inline\]](#)

7.242.2.2 [OsclTrapStackItem::OsclTrapStackItem \(_OsclHeapBase * aCBase\) \[inline\]](#)

References iCBase, iNext, iTAny, iTrapOperation, and NULL.

7.242.2.3 [OsclTrapStackItem::OsclTrapStackItem \(OsclAny * aTAny\) \[inline\]](#)

References iCBase, iNext, iTAny, iTrapOperation, and NULL.

7.242.2.4 [OsclTrapStackItem::OsclTrapStackItem \(OsclTrapItem aItem\) \[inline\]](#)

References iCBase, iNext, iTAny, iTrapOperation, and NULL.

7.242.3 Field Documentation

7.242.3.1 [_OsclHeapBase* OsclTrapStackItem::iCBase](#)

Referenced by OsclTrapStackItem().

7.242.3.2 [OsclTrapStackItem* OsclTrapStackItem::iNext](#)

Referenced by OsclTrapStackItem().

7.242.3.3 OsclAny* OsclTrapStackItem::iTAny

Referenced by OsclTrapStackItem().

7.242.3.4 OsclTrapOperation OsclTrapStackItem::iTrapOperation

Referenced by OsclTrapStackItem().

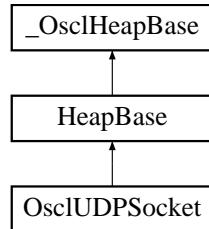
The documentation for this class was generated from the following file:

- [oscl_error_trapcleanup.h](#)

7.243 OsclUDPSocket Class Reference

```
#include <oscl_socket.h>
```

Inheritance diagram for OsclUDPSocket:



Public Member Functions

- OSCL_IMPORT_REF ~OsclUDPSocket ()
- OSCL_IMPORT_REF TPVSocketEvent ThreadLogoff ()
- OSCL_IMPORT_REF TPVSocketEvent ThreadLogon (OsclSocketServ &aServ, OsclSocketObserver *aObserver)
- OSCL_IMPORT_REF int32 Close ()
- OSCL_IMPORT_REF int32 Bind (OsclNetworkAddress &aAddress)
- OSCL_IMPORT_REF int32 Join (OsclNetworkAddress &aAddress)
- OSCL_IMPORT_REF int32 JoinMulticastGroup (OsclIpMReq &aMReq)
- OSCL_IMPORT_REF int32 SetMulticastTTL (int32 aTTL)
- OSCL_IMPORT_REF int32 SetOptionToReuseAddress ()
- OSCL_IMPORT_REF int32 SetTOS (const OsclSocketTOS &aTOS)
- OSCL_IMPORT_REF int32 GetPeerName (OsclNetworkAddress &aPeerName)
- OSCL_IMPORT_REF TPVSocketEvent BindAsync (OsclNetworkAddress &aAddress, int32 aTimeoutMsec=(-1))
- OSCL_IMPORT_REF void CancelBind ()
- OSCL_IMPORT_REF uint8 * GetRecvData (int32 *aLength)
- OSCL_IMPORT_REF uint8 * GetSendData (int32 *aLength)
- OSCL_IMPORT_REF TPVSocketEvent SendTo (const uint8 *aPtr, uint32 aLen, OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1)
- OSCL_IMPORT_REF void CancelSendTo ()
- OSCL_IMPORT_REF TPVSocketEvent RecvFrom (uint8 *aPtr, uint32 aMaxLen, OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1, uint32 aMultiRecvLimit=0, Oscl_Vector< uint32, OsclMemAllocator > *aPacketLen=NULL, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aPacketSource=NULL)
- OSCL_IMPORT_REF void CancelRecvFrom ()
- OSCL_IMPORT_REF int32 SetRecvBufferSize (uint32 size)

Static Public Member Functions

- static OSCL_IMPORT_REF OsclUDPSocket * NewL (Oscl_DefAlloc &alloc, OsclSocketServ &aServ, OsclSocketObserver *aObserver, uint32 aId)

7.243.1 Detailed Description

The UDP Socket class

7.243.2 Member Function Documentation

7.243.2.1 static OSCL_IMPORT_REF OsclUDPSocket* OsclUDPSocket::NewL (Oscl_DefAlloc & *alloc*, OsclSocketServ & *aServ*, OsclSocketObserver * *aObserver*, uint32 *aId*) [static]

Create a UDP Socket. May leave if failure.

Parameters

alloc,: Memory allocator.

aServ,: Socket server. Must be connected.

aObserver,: Socket observer.

aId,: Socket ID. The caller must assign an ID to each socket. The ID is used to identify the socket in observer callbacks.

Returns

Returns pointer to socket.

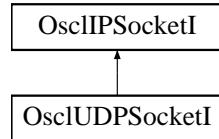
The documentation for this class was generated from the following file:

- [oscl_socket.h](#)

7.244 OsclUDPSocketI Class Reference

```
#include <oscl_udp_socket.h>
```

Inheritance diagram for OsclUDPSocketI:



Public Member Functions

- virtual ~OsclUDPSocketI ()
- int32 [Close \(\)](#)
- int32 [JoinMulticastGroup \(OsclIpMReq &aMReq\)](#)
- int32 [SetMulticastTTL \(int32 aTTL\)](#)
- uint8 * [GetRecvData \(int32 *aLength\)](#)
- uint8 * [GetSendData \(int32 *aLength\)](#)
- [TPVSocketEvent ThreadLogoff \(\)](#)
- [TPVSocketEvent ThreadLogon \(OsclSocketServI *aServ, OsclSocketObserver *aObserver\)](#)
- [TPVSocketEvent BindAsync \(OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1\)](#)
- void [CancelBind \(\)](#)
- [TPVSocketEvent SendTo \(const uint8 *&aPtr, uint32 aLen, OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1\)](#)
- void [CancelSendTo \(\)](#)
- [TPVSocketEvent RecvFrom \(uint8 *&aPtr, uint32 aMaxLen, OsclNetworkAddress &aAddress, int32 aTimeoutMsec=-1, uint32 aMultiMaxLen=0, Oscl_Vector< uint32, OsclMemAllocator > *aPacketLen=NULL, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aPacketSource=NULL\)](#)
- void [CancelRecvFrom \(\)](#)

Static Public Member Functions

- static OsclUDPSocketI * [NewL \(Oscl_DefAlloc &a, OsclSocketServI *aServ, OsclSocketObserver *aObserver, uint32 aId\)](#)

7.244.1 Detailed Description

Internal implementation class for [OsclUDPSocket](#)

7.244.2 Constructor & Destructor Documentation

7.244.2.1 **virtual OsclUDPSocketI::~OsclUDPSocketI () [virtual]**

7.244.3 Member Function Documentation

7.244.3.1 **TPVSocketEvent OsclUDPSocketI::BindAsync (OsclNetworkAddress & aAddress, int32 aTimeoutMsec = -1) [inline]**

References OsclBindMethod::Bind(), EPVSocketFailure, EPVSocketNotImplemented, OsclSocketIBase::HasAsyncBind(), OsclIPSocketI::iAddress, OsclIPSocketI::iObserver, OsclNetworkAddress::ipAddr, OsclNetworkAddress::port, OsclNameString< __len >::Set(), and OsclNameString< __len >::Str().

7.244.3.2 **void OsclUDPSocketI::CancelBind () [inline]**

References OsclSocketMethod::CancelMethod().

7.244.3.3 **void OsclUDPSocketI::CancelRecvFrom () [inline]**

References OsclSocketMethod::CancelMethod().

7.244.3.4 **void OsclUDPSocketI::CancelSendTo () [inline]**

References OsclSocketMethod::CancelMethod().

7.244.3.5 **int32 OsclUDPSocketI::Close () [virtual]**

Implements [OsclIPSocketI](#).

7.244.3.6 **uint8 * OsclUDPSocketI::GetRecvData (int32 * aLength) [inline, virtual]**

Implements [OsclIPSocketI](#).

References OsclRecvFromMethod::GetRecvData().

7.244.3.7 **uint8 * OsclUDPSocketI::GetSendData (int32 * aLength) [inline, virtual]**

Implements [OsclIPSocketI](#).

References OsclSendToMethod::GetSendData().

7.244.3.8 int32 OsclUDPSocketI::JoinMulticastGroup (OsclIpMReq & aMReq)

7.244.3.9 static OsclUDPSocketI* OsclUDPSocketI::NewL (Oscl_DefAlloc & a, OsclSocketServI * aServ, OsclSocketObserver * aObserver, uint32 aId) [static]

7.244.3.10 TPVSocketEvent OsclUDPSocketI::RecvFrom (uint8 *& aPtr, uint32 aMaxLen, OsclNetworkAddress & aAddress, int32 aTimeoutMsec = -1, uint32 aMultiMaxLen = 0, Oscl_Vector< uint32, OsclMemAllocator > * aPacketLen = NULL, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * aPacketSource = NULL) [inline]

References EPVSocketFailure, OsclIPSocketI::iObserver, and OsclRecvFromMethod::RecvFrom().

7.244.3.11 TPVSocketEvent OsclUDPSocketI::SendTo (const uint8 *& aPtr, uint32 aLen, OsclNetworkAddress & aAddress, int32 aTimeoutMsec = -1) [inline]

References EPVSocketFailure, OsclIPSocketI::iObserver, and OsclSendToMethod::SendTo().

7.244.3.12 int32 OsclUDPSocketI::SetMulticastTTL (int32 aTTL)

7.244.3.13 TPVSocketEvent OsclUDPSocketI::ThreadLogoff ()

Reimplemented from [OsclIPSocketI](#).

7.244.3.14 TPVSocketEvent OsclUDPSocketI::ThreadLogon (OsclSocketServI * aServ, OsclSocketObserver * aObserver)

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

- [oscl_udp_socket.h](#)

7.245 OsclUuid Struct Reference

```
#include <oscl_uuid.h>
```

Public Member Functions

- [OsclUuid \(\)](#)
- [OsclUuid \(uint32 l, uint16 w1, uint16 w2, uint8 b1, uint8 b2, uint8 b3, uint8 b4, uint8 b5, uint8 b6, uint8 b7, uint8 b8\)](#)
- [OsclUuid \(const OsclUuid &uuid\)](#)
- [OsclUuid & operator= \(const OsclUuid &src\)](#)
- [bool operator== \(const OsclUuid &src\) const](#)
- [bool operator!= \(const OsclUuid &src\) const](#)

Data Fields

- [uint32 data1](#)
- [uint16 data2](#)
- [uint16 data3](#)
- [uint8 data4 \[BYTES_IN_UUID_ARRAY\]](#)

7.245.1 Detailed Description

OSCL UUID structure used for unique identification of modules and interfaces.

7.245.2 Constructor & Destructor Documentation

7.245.2.1 OsclUuid::OsclUuid () [inline]

References oscl_memset().

7.245.2.2 OsclUuid::OsclUuid (uint32 l, uint16 w1, uint16 w2, uint8 b1, uint8 b2, uint8 b3, uint8 b4, uint8 b5, uint8 b6, uint8 b7, uint8 b8) [inline]

References data1, data2, data3, and data4.

7.245.2.3 OsclUuid::OsclUuid (const OsclUuid & uuid) [inline]

References oscl_memcpy().

7.245.3 Member Function Documentation

7.245.3.1 bool OsclUuid::operator!= (const OsclUuid & src) const [inline]

7.245.3.2 OsclUuid& OsclUuid::operator= (const OsclUuid & src) [inline]

References oscl_memcpy().

7.245.3.3 bool OsclUuid::operator==(const OsclUuid & src) const [inline]

References data1, data2, data3, and data4.

7.245.4 Field Documentation

7.245.4.1 uint32 OsclUuid::data1

Referenced by operator==(), and OsclUuid().

7.245.4.2 uint16 OsclUuid::data2

Referenced by operator==(), and OsclUuid().

7.245.4.3 uint16 OsclUuid::data3

Referenced by operator==(), and OsclUuid().

7.245.4.4 uint8 OsclUuid::data4[BYTES_IN_UUID_ARRAY]

Referenced by operator==(), and OsclUuid().

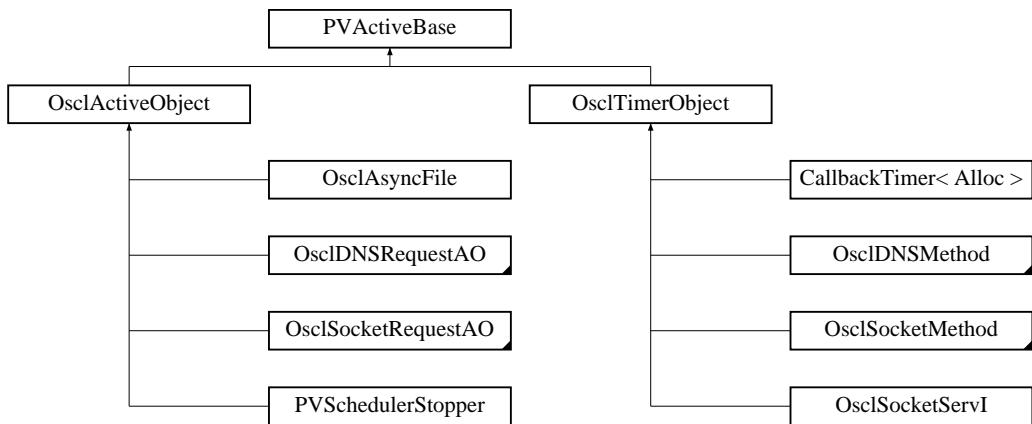
The documentation for this struct was generated from the following file:

- [oscl_uuid.h](#)

7.246 PVActiveBase Class Reference

```
#include <oscl_scheduler_aobase.h>
```

Inheritance diagram for PVActiveBase:



Public Member Functions

- [PVActiveBase](#) (const char name[], int32 pri)
- virtual [~PVActiveBase](#) ()
- bool [IsInAnyQ](#) ()
- virtual int32 [RunError](#) (int32 aError)=0
- virtual void [Run](#) ()=0
- virtual void [DoCancel](#) ()=0
- void [AddToScheduler](#) ()
- void [RemoveFromScheduler](#) ()
- void [Destroy](#) ()
- void [Activate](#) ()
- OSCL_IMPORT_REF bool [IsAdded](#) () const
- void [Cancel](#) ()

Data Fields

- uint32 [iAddedNum](#)
- [OsclNameString< PVEXECNAMELEN >](#) [iName](#)
- [PVThreadContext](#) [iThreadContext](#)
- [TReadyQueLink](#) [iPVReadyQLink](#)
- bool [iBusy](#)
- [OsclAOStatus](#) [iStatus](#)

Friends

- class [OsclSchedulerCommonBase](#)
- class [OsclActiveObject](#)
- class [OsclTimerObject](#)

- class [OsclReadyQ](#)
- class [OsclReadyCompare](#)
- class [OsclReadySetPosition](#)
- class [OsclExecScheduler](#)

7.246.1 Detailed Description

PV Scheduler internal AO base class. Both [OsclActiveObject](#) and [OsclTimerObject](#) derive from this class. For Symbian, this just container has the desired additions to the basic CTimer or OsclActiveObj functionality. For non-Symbian, this class contains the entire AO implementation.

7.246.2 Constructor & Destructor Documentation

7.246.2.1 `PVActiveBase::PVActiveBase (const char name[], int32 pri)`

7.246.2.2 `virtual PVActiveBase::~PVActiveBase () [virtual]`

7.246.3 Member Function Documentation

7.246.3.1 `void PVActiveBase::Activate ()`

7.246.3.2 `void PVActiveBase::AddToScheduler ()`

Reimplemented in [OsclActiveObject](#), and [OsclTimerObject](#).

7.246.3.3 `void PVActiveBase::Cancel ()`

Reimplemented in [OsclActiveObject](#), and [OsclTimerObject](#).

7.246.3.4 `void PVActiveBase::Destroy ()`

7.246.3.5 `virtual void PVActiveBase::DoCancel () [pure virtual]`

Implements cancellation of an outstanding request.

This function is called as part of the active object's [Cancel\(\)](#).

It must call the appropriate cancel function offered by the active object's asynchronous service provider. The asynchronous service provider's cancel is expected to act immediately.

[DoCancel\(\)](#) must not wait for event completion; this is handled by [Cancel\(\)](#).

Implemented in [OsclDNSRequestAO](#), [OsclSocketRequestAO](#), [OsclActiveObject](#), and [OsclTimerObject](#).

7.246.3.6 `OSCL_IMPORT_REF bool PVActiveBase::IsAdded () const`

7.246.3.7 `bool PVActiveBase::IsInAnyQ () [inline]`

References TReadyQueLink::iIsIn, iPVReadyQLink, and NULL.

7.246.3.8 void PVActiveBase::RemoveFromScheduler ()

Reimplemented in [OsclActiveObject](#), and [OsclTimerObject](#).

7.246.3.9 virtual void PVActiveBase::Run () [pure virtual]

Handles an active object's request completion event.

A derived class must provide an implementation to handle the completed request. If appropriate, it may issue another request.

The function is called by the active scheduler when a request completion event occurs, i.e. after the active scheduler's `WaitForAnyRequest()` function completes.

Before calling this active object's `Run()` function, the active scheduler has:

1. decided that this is the highest priority active object with a completed request
2. marked this active object's request as complete (i.e. the request is no longer outstanding)

`Run()` runs under a trap harness in the active scheduler. If it leaves, then the active scheduler calls `ExecError()` to handle the leave.

Note that once the active scheduler's `Start()` function has been called, all user code is run under one of the program's active object's `Run()` or `RunError()` functions.

Implemented in [OsclDNSMethod](#), [OsclDNSRequestAO](#), [OsclSocketMethod](#), [OsclSocketRequestAO](#), and [CallbackTimer< Alloc >](#).

7.246.3.10 virtual int32 PVActiveBase::RunError (int32 *aError*) [pure virtual]

Virtual routine that gets called if the active object's Run routine leaves.

Parameters

aError,: the leave code generated by the Run.

Returns

:returns `OsclErrNone` if the error was handled, or returns the input *aError* value if not handled.

Implemented in [OsclActiveObject](#), and [OsclTimerObject](#).

7.246.4 Friends And Related Function Documentation

- 7.246.4.1 **friend class OsclActiveObject [friend]**
- 7.246.4.2 **friend class OsclExecScheduler [friend]**
- 7.246.4.3 **friend class OsclReadyCompare [friend]**
- 7.246.4.4 **friend class OsclReadyQ [friend]**
- 7.246.4.5 **friend class OsclReadySetPosition [friend]**
- 7.246.4.6 **friend class OsclSchedulerCommonBase [friend]**
- 7.246.4.7 **friend class OsclTimerObject [friend]**

7.246.5 Field Documentation

- 7.246.5.1 **uint32 PVActiveBase::iAddedNum**
- 7.246.5.2 **bool PVActiveBase::iBusy**
- 7.246.5.3 **OsclNameString<PVEXECNAMELEN> PVActiveBase::iName**
- 7.246.5.4 **TReadyQueLink PVActiveBase::iPVReadyQLink**

Referenced by IsInAnyQ().

7.246.5.5 OsclAOStatus PVActiveBase::iStatus

The request status associated with an asynchronous request.

This is passed as a parameter to all asynchronous service providers.

The active scheduler uses this to check whether the active object's request has completed.

The function can use the completion code to judge the success or otherwise of the request.

Request status contains one of the values OSCL_REQUEST_ERR_NONE: request completed with no error, or request is not active. OSCL_REQUEST_PENDING: request is active & pending OSCL_REQUEST_ERR_CANCEL: request was canceled before completion. or any user-defined value.

7.246.5.6 PVThreadContext PVActiveBase::iThreadContext

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

- [oscl_scheduler_aobase.h](#)

7.247 PVLogger Class Reference

```
#include <pvlogger.h>
```

Public Types

- `typedef int32 log_level_type`
- `typedef int32 message_id_type`
- `typedef int32 filter_status_type`
- `typedef _OsclBasicAllocator alloc_type`

Public Member Functions

- `void SetLogLevel (log_level_type level)`
- `OSCL_IMPORT_REF void SetLogLevelAndPropagate (log_level_type level)`
- `log_level_type GetLogLevel ()`
- `void DisableAppenderInheritance ()`
- `void AddAppender (OsclSharedPtr< PVLoggerAppender > &appender)`
- `void RemoveAppender (OsclSharedPtr< PVLoggerAppender > &appender)`
- `void AddFilter (OsclSharedPtr< PVLoggerFilter > &filter)`
- `uint32 GetNumAppenders ()`
- `OSCL_IMPORT_REF bool IsActive (log_level_type level)`
- `OSCL_IMPORT_REF void LogMsgStringV (message_id_type msgID, const char *fmt, va_list arguments)`
- `OSCL_IMPORT_REF void LogMsgBuffersV (message_id_type msgID, int32 numPairs, va_list arguments)`
- `OSCL_IMPORT_REF void LogMsgString (message_id_type msgID, const char *fmt,...)`
- `OSCL_IMPORT_REF void LogMsgBuffers (message_id_type msgID, int32 numPairs,...)`
- `OSCL_IMPORT_REF PVLogger (const char *inputTag, log_level_type level, bool oAppenderInheritance)`
- `virtual ~PVLogger ()`

Static Public Member Functions

- `static OSCL_IMPORT_REF void Init ()`
- `static OSCL_IMPORT_REF void Cleanup ()`
- `static OSCL_IMPORT_REF PVLogger * GetLoggerObject (const char *inputTag)`

Protected Member Functions

- `void SetParent (PVLogger *parentLogger)`
- `PVLogger * GetParent ()`

Friends

- class `PVLoggerRegistry`

7.247.1 Member Typedef Documentation

7.247.1.1 `typedef _OsclBasicAllocator PVLogger::alloc_type`

7.247.1.2 `typedef int32 PVLogger::filter_status_type`

7.247.1.3 `typedef int32 PVLogger::log_level_type`

7.247.1.4 `typedef int32 PVLogger::message_id_type`

7.247.2 Constructor & Destructor Documentation

7.247.2.1 `OSCL_IMPORT_REF PVLogger::PVLogger (const char * inputTag, log_level_type level, bool oAppenderInheritance)`

Logger Constructor

Parameters

tag Logger tag, unique to a logging control point

level Active Log level of the logger

oAppenderInheritance

Returns

NONE

7.247.2.2 `virtual PVLogger::~PVLogger () [inline, virtual]`

References `Oscl_TAlloc< T, Alloc >::deallocate()`.

7.247.3 Member Function Documentation

7.247.3.1 `void PVLogger::AddAppender (OsclSharedPtr< PVLoggerAppender > & appender) [inline]`

This method adds an appender to the logging control point. Each logger maintains a list of appenders. Any msg to a logger if deemed active is logged to all the appenders.

Parameters

appender pointer to the appender to add

Returns

NONE

Exceptions

leaves if out of memory

References `OSCL_UNUSED_ARG`, and `Oscl_Vector< T, Alloc >::push_back()`.

7.247.3.2 void PVLogger::AddFilter (OsclSharedPtr< PVLoggerFilter > &*filter*) [inline]

This method adds a message filter to the logging control point. Each logger maintains a list of filters. Any msg to a logger if deemed active is passed through the msg filters prior to logging.

Parameters

msgFilter pointer to the filter to add

Returns

NONE

Exceptions

leaves if out of memory

References OSCL_UNUSED_ARG, and Oscl_Vector< T, Alloc >::push_back().

7.247.3.3 static OSCL_IMPORT_REF void PVLogger::Cleanup () [static]

Frees the [PVLogger](#) singleton used by the current thread. This must be called before thread exit. No messages can be logged after cleanup.

Returns**7.247.3.4 void PVLogger::DisableAppenderInheritance () [inline]**

This method disables appender inheritance for the logging control point

7.247.3.5 static OSCL_IMPORT_REF PVLogger* PVLogger::GetLoggerObject (const char * *inputTag*) [static]

This is a factory method to create a log control point, with a certain input tag. There is a central registry of all the loggers, with their corresponding tags, called PV Logger Registry. In case the logger with the specified tag exists in the global registry, it is returned, else a new one is created and a pointer to the same is returned.

Parameters

inputTag logger tag, viz. "x.y.z"

level log level associated with the logging control point (All messages with log levels less than equal to the log level of the control point would be logged)

oAppenderInheritance

Returns

PVLogger* Pointer to the logging control point

Exceptions

leaves if out of memory

Referenced by OsclDNSMethod::OsclDNSMethod().

7.247.3.6 `log_level_type PVLogger::GetLogLevel () [inline]`

This method returns the log level of a control point. This could either have been set explicitly by the user (at the time of creation or later) or could have been inherited from one of its ancestors.

Returns

`log level associated with the logging control point`

7.247.3.7 `uint32 PVLogger::GetNumAppenders () [inline]`

This method returns the number of appenders attached to the logging control point.

References `Oscl_Vector_Base::size()`.

7.247.3.8 `PVLogger* PVLogger::GetParent () [inline, protected]`

7.247.3.9 `static OSCL_IMPORT_REF void PVLogger::Init () [static]`

`PVLogger` needs to be initialized once per thread. This creates the `PVLogger` singleton that is used throughout the duration of the thread. Initialization must occur before the first message is logged.

Exceptions

`leaves` if out of memory

7.247.3.10 `OSCL_IMPORT_REF bool PVLogger::IsActive (log_level_type level)`

This method determines if a msg passed to the logging control point is active or not. Only messages that are deemed active are logged. Messages are considered not active if any of the following criteria are met:

- All logging is disabled at this logging control point
- If all the log levels, leading upto the root log point are uninitialized
- If the log level of the incoming message is LESS THAN that of the active log level of the logging control point.

Returns

`BOOL`

7.247.3.11 `OSCL_IMPORT_REF void PVLogger::LogMsgBuffers (message_id_type msgID, int32 numPairs, ...)`

This method logs opaque data buffers to all the appenders, after running through the message filters. After logging the message to the appenders attached to the current control point, the message is passed up to the parent node, only if appender inheritance is enabled.

Parameters

`msgID` Message ID, that is unique to a message

numPairs Number of (ptr_len, ptr) pairs
arguments Variable list of arguments

Returns

NONE

7.247.3.12 OSCL_IMPORT_REF void PVLogger::LogMsgBuffersV (message_id_type *msgID*, int32 *numPairs*, va_list *arguments*)

This method logs opaque data buffers to all the appenders, after running through the message filters. After logging the message to the appenders attached to the current control point, the message is passed up to the parent node, only if appender inheritance is enabled.

Parameters

msgID Message ID, that is unique to a message
numPairs Number of (ptr_len, ptr) pairs
arguments Variable list of arguments

Returns

NONE

7.247.3.13 OSCL_IMPORT_REF void PVLogger::LogMsgString (message_id_type *msgID*, const char **fmt*, ...)

This method logs formatted text msg to all the appenders, after running through the message filters. After logging the message to the appenders attached to the current control point, the message is passed up to the parent node, only if appender inheritance is enabled.

Parameters

msgID Message ID, that is unique to a message
fmt format string, similar to one taken by printf
arguments Variable list of arguments

Returns

NONE

7.247.3.14 OSCL_IMPORT_REF void PVLogger::LogMsgStringV (message_id_type *msgID*, const char **fmt*, va_list *arguments*)

This method logs formatted text msg to all the appenders, after running through the message filters. After logging the message to the appenders attached to the current control point, the message is passed up to the parent node, only if appender inheritance is enabled.

Parameters

msgID Message ID, that is unique to a message

fmt format string, similar to one taken by printf
arguments Variable list of arguments

Returns

NONE

7.247.3.15 void PVLogger::RemoveAppender (OsclSharedPtr< PVLoggerAppender > & appender) [inline]

This method removes an appender from the logging control point. Each logger maintains a list of appenders. Any msg to a logger if deemed active is logged to all the appenders.

Parameters

appender pointer to the appender to delete

Returns

NONE

References Oscl_Vector< T, Alloc >::begin(), Oscl_Vector< T, Alloc >::end(), Oscl_Vector< T, Alloc >::erase(), OsclSharedPtr< TheClass >::GetRep(), and OSCL_UNUSED_ARG.

7.247.3.16 void PVLogger::SetLogLevel (log_level_type level) [inline]

This method is used to set the log level of a control point.

Parameters

level log level associated with the logging control point

Returns

NONE

References OSCL_UNUSED_ARG.

7.247.3.17 OSCL_IMPORT_REF void PVLogger::SetLogLevelAndPropagate (log_level_type level)

This method is used to set the log level of a control point, as well as to propagate the level to all the descendants of this control point.

Parameters

level log level associated with the logging control point

Returns

NONE

7.247.3.18 void PVLogger::SetParent (PVLogger **parentLogger*) [inline, protected]

7.247.4 Friends And Related Function Documentation

7.247.4.1 friend class PVLoggerRegistry [friend]

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

- [pvlogger.h](#)

7.248 PVLoggerAppender Class Reference

```
#include <pvlogger_accessories.h>
```

Public Types

- `typedef PVLogger::message_id_type message_id_type`

Public Member Functions

- `virtual ~PVLoggerAppender ()`
- `virtual void AppendString (message_id_type msgID, const char *fmt, va_list va)=0`
- `virtual void AppendBuffers (message_id_type msgID, int32 numPairs, va_list va)=0`

7.248.1 Detailed Description

Base class for all message appenders. This class defines the interface to the message appenders. There are two kinds of msg appender APIs, one to append text messages, and other to append opaque message buffers.

7.248.2 Member Typedef Documentation

7.248.2.1 `typedef PVLogger::message_id_type PVLoggerAppender::message_id_type`

7.248.3 Constructor & Destructor Documentation

7.248.3.1 `virtual PVLoggerAppender::~PVLoggerAppender () [inline, virtual]`

7.248.4 Member Function Documentation

7.248.4.1 `virtual void PVLoggerAppender::AppendBuffers (message_id_type msgID, int32 numPairs, va_list va) [pure virtual]`

7.248.4.2 `virtual void PVLoggerAppender::AppendString (message_id_type msgID, const char *fmt, va_list va) [pure virtual]`

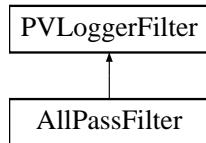
The documentation for this class was generated from the following file:

- `pvlogger_accessories.h`

7.249 PVLoggerFilter Class Reference

```
#include <pvlogger_accessories.h>
```

Inheritance diagram for PVLoggerFilter:



Public Types

- `typedef PVLogger::message_id_type message_id_type`
- `typedef PVLogger::log_level_type log_level_type`
- `typedef PVLogger::filter_status_type filter_status_type`

Public Member Functions

- `virtual ~PVLoggerFilter ()`
- `virtual filter_status_type FilterString (char *tag, message_id_type msgID, log_level_type level)=0`
- `virtual filter_status_type FilterOpaqueMessage (char *tag, message_id_type msgID, log_level_type level)=0`

7.249.1 Detailed Description

Base class for all message filters. This class defines the interface to the message filters. There are two kinds of msg filtering APIs, one to filter text messages, and other to filter opaque message buffers.

7.249.2 Member Typedef Documentation

7.249.2.1 `typedef PVLogger::filter_status_type PVLoggerFilter::filter_status_type`

Reimplemented in [AllPassFilter](#).

7.249.2.2 `typedef PVLogger::log_level_type PVLoggerFilter::log_level_type`

Reimplemented in [AllPassFilter](#).

7.249.2.3 `typedef PVLogger::message_id_type PVLoggerFilter::message_id_type`

Reimplemented in [AllPassFilter](#).

7.249.3 Constructor & Destructor Documentation

7.249.3.1 `virtual PVLoggerFilter::~PVLoggerFilter () [inline, virtual]`

7.249.4 Member Function Documentation

7.249.4.1 `virtual filter_status_type PVLoggerFilter::FilterOpaqueMessge (char * tag, message_id_type msgID, log_level_type level) [pure virtual]`

Implemented in [AllPassFilter](#).

7.249.4.2 `virtual filter_status_type PVLoggerFilter::FilterString (char * tag, message_id_type msgID, log_level_type level) [pure virtual]`

Implemented in [AllPassFilter](#).

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

- [pvlogger_accessories.h](#)

7.250 PVLoggerLayout Class Reference

```
#include <pvlogger_accessories.h>
```

Public Types

- `typedef PVLogger::message_id_type message_id_type`

Public Member Functions

- `virtual ~PVLoggerLayout()`
- `virtual int32 FormatString (char *formatBuf, int32 formatBufSize, message_id_type msgID, const char *fmt, va_list va)=0`
- `virtual int32 FormatOpaqueMessage (char *formatBuf, int32 formatBufSize, message_id_type msgID, int32 numPairs, va_list va)=0`

7.250.1 Detailed Description

Base class for all message formatters. This class defines the interface to the message formatter. There are two kinds of msg formatting APIs, one to format text messages, and other to format opaque message buffers.

7.250.2 Member Typedef Documentation

7.250.2.1 `typedef PVLogger::message_id_type PVLoggerLayout::message_id_type`

7.250.3 Constructor & Destructor Documentation

7.250.3.1 `virtual PVLoggerLayout::~PVLoggerLayout () [inline, virtual]`

7.250.4 Member Function Documentation

7.250.4.1 `virtual int32 PVLoggerLayout::FormatOpaqueMessage (char *formatBuf, int32 formatBufSize, message_id_type msgID, int32 numPairs, va_list va) [pure virtual]`

Formats the data and copies it to the given buffer.

Returns

The length of the buffer used.

7.250.4.2 `virtual int32 PVLoggerLayout::FormatString (char *formatBuf, int32 formatBufSize, message_id_type msgID, const char *fmt, va_list va) [pure virtual]`

Formats the string and copies it to the given buffer.

Returns

The length of the string not including the trailing ”

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

- [pvlogger_accessories.h](#)

7.251 PVLoggerRegistry Class Reference

```
#include <pvlogger_registry.h>
```

Public Types

- `typedef PVLogger::log_level_type log_level_type`
- `typedef PVLogger::alloc_type alloc_type`

Public Member Functions

- `OSCL_IMPORT_REF PVLoggerRegistry()`
- `virtual OSCL_IMPORT_REF ~PVLoggerRegistry()`
- `OSCL_IMPORT_REF PVLogger * GetPVLoggerObject (const char *tagIn)`
- `OSCL_IMPORT_REF PVLogger * CreatePVLogger (const char *tagIn, log_level_type level, bool oAppenderInheritance)`
- `OSCL_IMPORT_REF bool SetNodeLogLevelExplicit (char *tagIn, log_level_type level)`
- `OSCL_IMPORT_REF void SetNodeLogLevelExplicit (Oscl_TagTree< PVLogger *, alloc_type >::node_type *node, log_level_type level)`

Static Public Member Functions

- `static OSCL_IMPORT_REF PVLoggerRegistry * GetPVLoggerRegistry()`

7.251.1 Detailed Description

Class: `PVLoggerRegistry`

`PVLoggerRegistry` class, maintains a repository of all the loggers, along with their associated tags, in a tag tree. Any request for a log control point is serviced by this class.

Memory Ownership: Creates log control points for each tag, and holds these pointers in the tag tree. `PVLogger` registry is responsible for calling the destructor on each of these loggers.

7.251.2 Member Typedef Documentation

7.251.2.1 `typedef PVLogger::alloc_type PVLoggerRegistry::alloc_type`

7.251.2.2 `typedef PVLogger::log_level_type PVLoggerRegistry::log_level_type`

7.251.3 Constructor & Destructor Documentation

7.251.3.1 `OSCL_IMPORT_REF PVLoggerRegistry::PVLoggerRegistry()`

`PVLoggerRegistry` Constructor

7.251.3.2 `virtual OSCL_IMPORT_REF PVLoggerRegistry::~PVLoggerRegistry () [virtual]`

`PVLoggerRegistry` Destructor

7.251.4 Member Function Documentation

7.251.4.1 OSCL_IMPORT_REF PVLogger* PVLoggerRegistry::CreatePVLogger (const char * *tagIn*, log_level_type *level*, bool *oAppenderInheritance*)

This method creates a log control point, with specified tag, and level

Parameters

inputTag logger tag, viz. "x.y.z"
level log level associated with the logging control point
oAppenderInheritance

Returns

PVLogger<alloc_type, TheLock>* Pointer to the logging control point

7.251.4.2 OSCL_IMPORT_REF PVLogger* PVLoggerRegistry::GetPVLoggerObject (const char * *tagIn*)

[PVLoggerRegistry](#) method to get access to a logging control point, associated with a tag. In case the logger for this tag does not exist, it is created afresh, else pointer to the existing one is returned.

Parameters

inputTag logger tag, viz. "x.y.z"
level log level associated with the logging control point
oAppenderInheritance

Returns

PVLogger<Alloc, TheLock>* Pointer to the logging control point

7.251.4.3 static OSCL_IMPORT_REF PVLoggerRegistry* PVLoggerRegistry::GetPVLoggerRegistry () [static]

Get the logger registry. There is only one logger registry instance per thread.

7.251.4.4 OSCL_IMPORT_REF void PVLoggerRegistry::SetNodeLogLevelExplicit (Oscl_TagTree< PVLogger *, alloc_type >::node_type * *node*, log_level_type *level*)

This method recursively propagates the log level to all the descendants, of a node.

Parameters

node Node ptr, associated with a logger, from the tag tree.
level log level associated with the logging control point

Returns

NONE

**7.251.4.5 OSCL_IMPORT_REF bool PVLoggerRegistry::SetNodeLogLevelExplicit (char * *tagIn*,
log_level_type *level*)**

This method propagates the log level to all the descendants of the node, with a specified tag.

Parameters

tagIn logger tag, viz. "x.y.z"

level log level associated with the logging control point

Returns

true on success, else false.

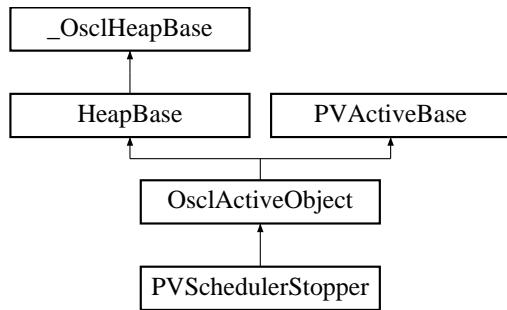
The documentation for this class was generated from the following file:

- [pvlogger_registry.h](#)

7.252 PVSchedulerStopper Class Reference

```
#include <oscl_scheduler.h>
```

Inheritance diagram for PVSchedulerStopper:



Public Member Functions

- [PVSchedulerStopper \(\)](#)
- [~PVSchedulerStopper \(\)](#)

7.252.1 Detailed Description

Scheduler stopper AO class, for internal use by scheduler.

7.252.2 Constructor & Destructor Documentation

7.252.2.1 PVSchedulerStopper::PVSchedulerStopper ()

7.252.2.2 PVSchedulerStopper::~PVSchedulerStopper ()

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

- [oscl_scheduler.h](#)

7.253 PVSockBufRecv Class Reference

```
#include <oscl_socket_request.h>
```

Public Member Functions

- [PVSockBufRecv \(\)](#)
- [PVSockBufRecv \(uint8 *aPtr, uint32 aLen, uint32 aMax\)](#)
- [PVSockBufRecv \(const PVSockBufRecv &a\)](#)

Data Fields

- [uint8 * iPtr](#)
- [uint32 iLen](#)
- [uint32 iMaxLen](#)

7.253.1 Constructor & Destructor Documentation

7.253.1.1 [PVSockBufRecv::PVSockBufRecv \(\) \[inline\]](#)

7.253.1.2 [PVSockBufRecv::PVSockBufRecv \(uint8 * aPtr, uint32 aLen, uint32 aMax\) \[inline\]](#)

7.253.1.3 [PVSockBufRecv::PVSockBufRecv \(const PVSockBufRecv & a\) \[inline\]](#)

7.253.2 Field Documentation

7.253.2.1 [uint32 PVSockBufRecv::iLen](#)

7.253.2.2 [uint32 PVSockBufRecv::iMaxLen](#)

7.253.2.3 [uint8* PVSockBufRecv::iPtr](#)

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

- [oscl_socket_request.h](#)

7.254 PVSockBufSend Class Reference

```
#include <oscl_socket_request.h>
```

Public Member Functions

- [PVSockBufSend \(\)](#)
- [PVSockBufSend \(const uint8 *aPtr, uint32 aLen\)](#)
- [PVSockBufSend \(const PVSockBufSend &a\)](#)

Data Fields

- [const uint8 * iPtr](#)
- [uint32 iLen](#)

7.254.1 Constructor & Destructor Documentation

7.254.1.1 [PVSockBufSend::PVSockBufSend \(\) \[inline\]](#)

7.254.1.2 [PVSockBufSend::PVSockBufSend \(const uint8 * aPtr, uint32 aLen\) \[inline\]](#)

7.254.1.3 [PVSockBufSend::PVSockBufSend \(const PVSockBufSend & a\) \[inline\]](#)

7.254.2 Field Documentation

7.254.2.1 [uint32 PVSockBufSend::iLen](#)

7.254.2.2 [const uint8* PVSockBufSend::iPtr](#)

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

- [oscl_socket_request.h](#)

7.255 PVThreadContext Class Reference

```
#include <oscl_scheduler_threadcontext.h>
```

Public Member Functions

- OSCL_IMPORT_REF PVThreadContext()
- OSCL_IMPORT_REF ~PVThreadContext()
- OSCL_IMPORT_REF bool IsSameThreadContext()
- OSCL_IMPORT_REF void EnterThreadContext()
- OSCL_IMPORT_REF void ExitThreadContext()

Static Public Member Functions

- static OSCL_IMPORT_REF uint32 Id()
- static OSCL_IMPORT_REF bool ThreadHasScheduler()

Friends

- class PVActiveBase
- class OsclActiveObject
- class OsclTimerObject
- class OsclExecScheduler
- class OsclCoeActiveScheduler
- class OsclExecSchedulerCommonBase
- class OsclExecSchedulerBase
- class OsclCoeActiveSchedulerBase

7.255.1 Constructor & Destructor Documentation

7.255.1.1 OSCL_IMPORT_REF PVThreadContext::PVThreadContext()

7.255.1.2 OSCL_IMPORT_REF PVThreadContext::~PVThreadContext()

7.255.2 Member Function Documentation

7.255.2.1 OSCL_IMPORT_REF void PVThreadContext::EnterThreadContext()

enter and exit thread context.

7.255.2.2 OSCL_IMPORT_REF void PVThreadContext::ExitThreadContext()

7.255.2.3 static OSCL_IMPORT_REF uint32 PVThreadContext::Id () [static]

static routine to get a unique thread ID for caller's thread context.

7.255.2.4 OSCL_IMPORT_REF bool PVThreadContext::IsSameThreadContext ()

compare caller's thread context to this one.

**7.255.2.5 static OSCL_IMPORT_REF bool PVThreadContext::ThreadHasScheduler ()
[static]**

a static utility to tell whether the calling thread has any scheduler-- either Oscl scheduler or native scheduler.

7.255.3 Friends And Related Function Documentation**7.255.3.1 friend class OsclActiveObject [friend]****7.255.3.2 friend class OsclCoeActiveScheduler [friend]****7.255.3.3 friend class OsclCoeActiveSchedulerBase [friend]****7.255.3.4 friend class OsclExecScheduler [friend]****7.255.3.5 friend class OsclExecSchedulerBase [friend]****7.255.3.6 friend class OsclExecSchedulerCommonBase [friend]****7.255.3.7 friend class OsclTimerObject [friend]****7.255.3.8 friend class PVActiveBase [friend]**

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

- [oscl_scheduler_threadcontext.h](#)

7.256 Oscl_TAlloc< T, Alloc >::rebind< U, V > Struct Template Reference

```
#include <oscl_defalloc.h>
```

Public Types

- **typedef Oscl_TAlloc< U, V > other**

```
template<class T, class Alloc>template<class U, class V> struct Oscl_TAlloc< T, Alloc >::rebind< U, V >
```

7.256.1 Member Typedef Documentation

```
7.256.1.1 template<class T, class Alloc> template<class U , class V > typedef Oscl_TAlloc<U, V> Oscl_TAlloc< T, Alloc >::rebind< U, V >::other
```

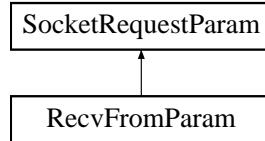
The documentation for this struct was generated from the following file:

- [oscl_defalloc.h](#)

7.257 RecvFromParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for RecvFromParam:



Public Member Functions

- `RecvFromParam (uint8 *aPtr, uint32 aMaxLen, OsclNetworkAddress &aAddress, uint32 flags, uint32 aMultiMax, Oscl_Vector< uint32, OsclMemAllocator > *aPacketLen, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > *aPacketSource)`

Data Fields

- `PVSockBufRecv iBufRecv`
- `uint32 iFlags`
- `OsclNetworkAddress & iAddr`
- `uint32 iMultiMaxLen`
- `Oscl_Vector< uint32, OsclMemAllocator > * iPacketLen`
- `Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * iPacketSource`

7.257.1 Constructor & Destructor Documentation

7.257.1.1 RecvFromParam::RecvFromParam (uint8 *& aPtr, uint32 aMaxLen, OsclNetworkAddress & aAddress, uint32 flags, uint32 aMultiMax, Oscl_Vector< uint32, OsclMemAllocator > * aPacketLen, Oscl_Vector< OsclNetworkAddress, OsclMemAllocator > * aPacketSource) [inline]

7.257.2 Field Documentation

7.257.2.1 OsclNetworkAddress& RecvFromParam::iAddr

7.257.2.2 PVSockBufRecv RecvFromParam::iBufRecv

7.257.2.3 uint32 RecvFromParam::iFlags

7.257.2.4 uint32 RecvFromParam::iMultiMaxLen

7.257.2.5 Oscl_Vector<uint32, OsclMemAllocator>* RecvFromParam::iPacketLen

7.257.2.6 Oscl_Vector<OsclNetworkAddress, OsclMemAllocator>* RecvFromParam::iPacketSource

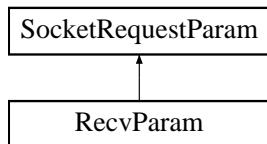
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.258 RecvParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for RecvParam:



Public Member Functions

- [RecvParam \(uint8 *&aPtr, uint32 aMaxLen, uint32 flags\)](#)

Data Fields

- [PVSockBufRecv iBufRecv](#)
- [uint32 iFlags](#)

7.258.1 Constructor & Destructor Documentation

7.258.1.1 [RecvParam::RecvParam \(uint8 *& aPtr, uint32 aMaxLen, uint32 flags\) \[inline\]](#)

7.258.2 Field Documentation

7.258.2.1 [PVSockBufRecv RecvParam::iBufRecv](#)

7.258.2.2 [uint32 RecvParam::iFlags](#)

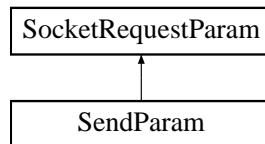
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.259 SendParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for SendParam:



Public Member Functions

- [SendParam \(const uint8 *aPtr, uint32 aLen, uint32 aFlags\)](#)

Data Fields

- [PVSockBufSend iBufSend](#)
- [uint32 iFlags](#)
- [uint32 iXferLen](#)

7.259.1 Detailed Description

Socket method parameter sets

7.259.2 Constructor & Destructor Documentation

7.259.2.1 [SendParam::SendParam \(const uint8 *aPtr, uint32 aLen, uint32 aFlags\) \[inline\]](#)

7.259.3 Field Documentation

7.259.3.1 [PVSockBufSend SendParam::iBufSend](#)

7.259.3.2 [uint32 SendParam::iFlags](#)

7.259.3.3 [uint32 SendParam::iXferLen](#)

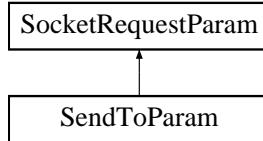
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.260 SendToParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for SendToParam:



Public Member Functions

- [SendToParam \(const uint8 *&aPtr, uint32 aLen, OsclNetworkAddress &anAddr, uint32 flags\)](#)
- [~SendToParam \(\)](#)

Data Fields

- [PVSockBufSend iBufSend](#)
- [uint32 iFlags](#)
- [OsclNetworkAddress iAddr](#)
- [uint32 iXferLen](#)

7.260.1 Constructor & Destructor Documentation

7.260.1.1 SendToParam::SendToParam (const uint8 *& aPtr, uint32 aLen, OsclNetworkAddress & anAddr, uint32 flags) [inline]

7.260.1.2 SendToParam::~SendToParam () [inline]

7.260.2 Field Documentation

7.260.2.1 OsclNetworkAddress SendToParam::iAddr

7.260.2.2 PVSockBufSend SendToParam::iBufSend

7.260.2.3 uint32 SendToParam::iFlags

7.260.2.4 uint32 SendToParam::iXferLen

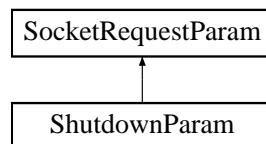
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.261 ShutdownParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for ShutdownParam:



Public Member Functions

- [ShutdownParam \(TPVSocketShutdown aHow\)](#)

Data Fields

- [TPVSocketShutdown iHow](#)

7.261.1 Constructor & Destructor Documentation

7.261.1.1 [ShutdownParam::ShutdownParam \(TPVSocketShutdown *aHow*\) \[inline\]](#)

7.261.2 Field Documentation

7.261.2.1 [TPVSocketShutdown ShutdownParam::iHow](#)

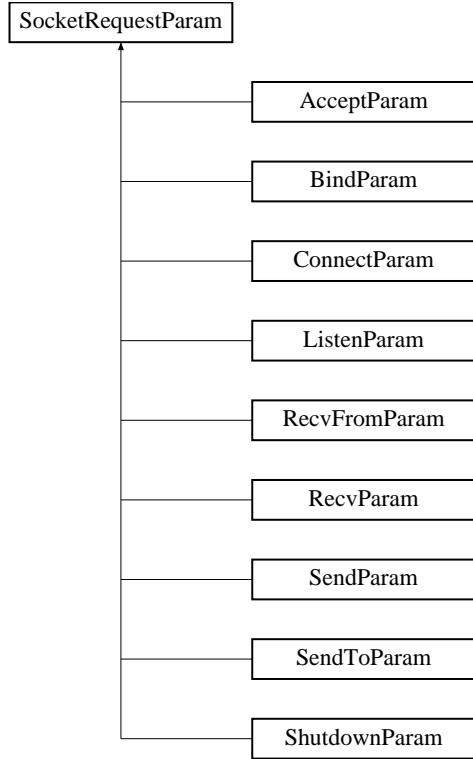
The documentation for this class was generated from the following file:

- [oscl_socket_request.h](#)

7.262 SocketRequestParam Class Reference

```
#include <oscl_socket_request.h>
```

Inheritance diagram for SocketRequestParam:



Public Member Functions

- [SocketRequestParam \(TPVSocketFxn aFxn\)](#)

Data Fields

- [TPVSocketFxn iFxn](#)

7.262.1 Detailed Description

Base class for all socket method parameter sets

7.262.2 Constructor & Destructor Documentation

7.262.2.1 SocketRequestParam::SocketRequestParam (TPVSocketFxn *aFxn*) [inline]

7.262.3 Field Documentation

7.262.3.1 TPVSocketFxn SocketRequestParam::iFxn

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

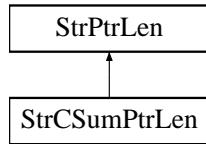
- [oscl_socket_request.h](#)

7.263 StrCSumPtrLen Struct Reference

same as [StrPtrLen](#), but includes checksum field and method to speed up querying

```
#include <oscl_str_ptr_len.h>
```

Inheritance diagram for StrCSumPtrLen:



Public Types

- `typedef int16 CheckSumType`

Public Member Functions

- `void setPtrLen (const char *newPtr, uint32 newLen)`
- `CheckSumType getCheckSum () const`
- `OSCL_IMPORT_REF void setCheckSum ()`
- `StrCSumPtrLen ()`
- `StrCSumPtrLen (const char *newPtr)`
- `StrCSumPtrLen (const char *newPtr, uint32 newLen)`
- `StrCSumPtrLen (const StrCSumPtrLen &rhs)`
- `StrCSumPtrLen (const StrPtrLen &rhs)`
- `c_bool isCIEquivalentTo (const StrCSumPtrLen &rhs) const`
- `c_bool operator== (const StrCSumPtrLen &rhs) const`
- `c_bool operator!= (const StrCSumPtrLen &rhs) const`
- `StrCSumPtrLen & operator= (const StrCSumPtrLen &rhs)`
- `StrCSumPtrLen & operator= (const StrPtrLen &rhs)`
- `StrCSumPtrLen & operator= (const char *rhs)`

Protected Attributes

- `CheckSumType checkSum`

7.263.1 Detailed Description

same as [StrPtrLen](#), but includes checksum field and method to speed up querying

7.263.2 Member Typedef Documentation

7.263.2.1 `typedef int16 StrCSumPtrLen::CheckSumType`

7.263.3 Constructor & Destructor Documentation

7.263.3.1 `StrCSumPtrLen::StrCSumPtrLen () [inline]`

7.263.3.2 `StrCSumPtrLen::StrCSumPtrLen (const char * newPtr) [inline]`

References `setCheckSum()`.

7.263.3.3 `StrCSumPtrLen::StrCSumPtrLen (const char * newPtr, uint32 newLen) [inline]`

References `setCheckSum()`.

7.263.3.4 `StrCSumPtrLen::StrCSumPtrLen (const StrCSumPtrLen & rhs) [inline]`

7.263.3.5 `StrCSumPtrLen::StrCSumPtrLen (const StrPtrLen & rhs) [inline]`

References `setCheckSum()`.

7.263.4 Member Function Documentation

7.263.4.1 `CheckSumType StrCSumPtrLen::getCheckSum () const [inline]`

References `checkSum`.

Referenced by `isCIEquivalentTo()`, and `operator==()`.

7.263.4.2 `c_bool StrCSumPtrLen::isCIEquivalentTo (const StrCSumPtrLen & rhs) const [inline]`

References `getCheckSum()`.

7.263.4.3 `c_bool StrCSumPtrLen::operator!= (const StrCSumPtrLen & rhs) const [inline]`

7.263.4.4 `StrCSumPtrLen& StrCSumPtrLen::operator= (const char * rhs) [inline]`

Reimplemented from `StrPtrLen`.

References `operator=()`, and `setCheckSum()`.

7.263.4.5 `StrCSumPtrLen& StrCSumPtrLen::operator= (const StrPtrLen & rhs) [inline]`

Reimplemented from `StrPtrLen`.

References `operator=()`, and `setCheckSum()`.

7.263.4.6 StrCSumPtrLen& StrCSumPtrLen::operator= (const StrCSumPtrLen & *rhs*) [inline]

References checkSum.

Referenced by operator=().

7.263.4.7 c_bool StrCSumPtrLen::operator== (const StrCSumPtrLen & *rhs*) const [inline]

References getCheckSum().

7.263.4.8 OSCL_IMPORT_REF void StrCSumPtrLen::setCheckSum ()

Referenced by operator=(), setPtrLen(), and StrCSumPtrLen().

7.263.4.9 void StrCSumPtrLen::setPtrLen (const char * *newPtr*, uint32 *newLen*) [inline]

Reimplemented from [StrPtrLen](#).

References setCheckSum().

7.263.5 Field Documentation

7.263.5.1 CheckSumType StrCSumPtrLen::checkSum [protected]

Referenced by getCheckSum(), and operator=().

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

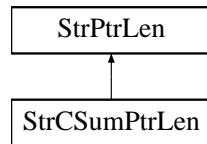
- [oscl_str_ptr_len.h](#)

7.264 StrPtrLen Struct Reference

This data structure encapsulates a set of functions used to perform.

```
#include <oscl_str_ptr_len.h>
```

Inheritance diagram for StrPtrLen:



Public Member Functions

- [StrPtrLen \(const char *newPtr\)](#)
- [StrPtrLen \(const char *newPtr, uint32 newLen\)](#)
- [StrPtrLen \(\)](#)
- [StrPtrLen \(const StrPtrLen &rhs\)](#)
- [const char * c_str \(\) const](#)
- [int32 length \(\) const](#)
- [int32 size \(\) const](#)
- [void setPtrLen \(const char *newPtr, uint32 newLen\)](#)
- [c_bool isCIEquivalentTo \(const StrPtrLen &rhs\) const](#)
- [c_bool isCIPrefixOf \(const StrPtrLen &rhs\) const](#)
- [int32 operator== \(const StrPtrLen &rhs\) const](#)
- [int32 operator!= \(const StrPtrLen &rhs\) const](#)
- [StrPtrLen & operator= \(const StrPtrLen &rhs\)](#)
- [StrPtrLen & operator= \(const char *rhs\)](#)

Protected Member Functions

- [bool isLetter \(const char c\) const](#)

Protected Attributes

- [const char * ptr](#)
- [int32 len](#)

7.264.1 Detailed Description

This data structure encapsulates a set of functions used to perform standard string operations. It should be used for null-terminated constant (non-modifiable) strings of char type.

7.264.2 Constructor & Destructor Documentation

7.264.2.1 StrPtrLen::StrPtrLen (const char * *newPtr*) [inline]

References len, and oscl_strlen().

7.264.2.2 StrPtrLen::StrPtrLen (const char * *newPtr*, uint32 *newLen*) [inline]

7.264.2.3 StrPtrLen::StrPtrLen () [inline]

7.264.2.4 StrPtrLen::StrPtrLen (const StrPtrLen & *rhs*) [inline]

7.264.3 Member Function Documentation

7.264.3.1 const char* StrPtrLen::c_str () const [inline]

References ptr.

7.264.3.2 c_bool StrPtrLen::isCIEquivalentTo (const StrPtrLen & *rhs*) const [inline]

References isCIPrefixOf(), and len.

7.264.3.3 c_bool StrPtrLen::isCIPrefixOf (const StrPtrLen & *rhs*) const [inline]

References isLetter(), len, OSCL_ASCII_CASE_MAGIC_BIT, and ptr.

Referenced by isCIEquivalentTo().

7.264.3.4 bool StrPtrLen::isLetter (const char *c*) const [inline, protected]

Referenced by isCIPrefixOf().

7.264.3.5 int32 StrPtrLen::length () const [inline]

References len.

7.264.3.6 int32 StrPtrLen::operator!= (const StrPtrLen & *rhs*) const [inline]

7.264.3.7 StrPtrLen& StrPtrLen::operator= (const char * *rhs*) [inline]

Reimplemented in [StrCSumPtrLen](#).

References len, oscl_strlen(), and ptr.

7.264.3.8 StrPtrLen& StrPtrLen::operator= (const StrPtrLen & *rhs*) [inline]

Reimplemented in [StrCSumPtrLen](#).

References len, and ptr.

7.264.3.9 int32 StrPtrLen::operator== (const StrPtrLen & *rhs*) const [inline]

References len, oscl_strcmp(), and ptr.

7.264.3.10 void StrPtrLen::setPtrLen (const char * *newPtr*, uint32 *newLen*) [inline]

Reimplemented in [StrCSumPtrLen](#).

References len, and ptr.

7.264.3.11 int32 StrPtrLen::size () const [inline]

References len.

7.264.4 Field Documentation

7.264.4.1 int32 StrPtrLen::len [protected]

Referenced by [isCIEquivalentTo\(\)](#), [isCIPrefixOf\(\)](#), [length\(\)](#), [operator=\(\)](#), [operator==\(\)](#), [setPtrLen\(\)](#), [size\(\)](#), and [StrPtrLen\(\)](#).

7.264.4.2 const char* StrPtrLen::ptr [protected]

Referenced by [c_str\(\)](#), [isCIPrefixOf\(\)](#), [operator=\(\)](#), [operator==\(\)](#), and [setPtrLen\(\)](#).

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

- [oscl_str_ptr_len.h](#)

7.265 TimeValue Class Reference

The [TimeValue](#) class represents a time value in a format native to the system.

```
#include <oscl_time.h>
```

Public Member Functions

- **OSCL_COND_IMPORT_REF TimeValue ()**
Create a [TimeValue](#) representing the current time.
- **OSCL_COND_IMPORT_REF TimeValue (const TimeValue &Tv)**
Copy constructor.
- **OSCL_COND_IMPORT_REF TimeValue (long tv, TimeUnits units)**
Create a [TimeValue](#) representing an interval of tv units.
- **OSCL_COND_IMPORT_REF TimeValue (const OsclBasicTimeStruct &in_tv)**
Create a [TimeValue](#) representing the absolute time specified by the BasicTimeStruct.
- **OSCL_COND_IMPORT_REF TimeValue (const ISO8601timeStrBuf time_strbuf)**
- **OSCL_COND_IMPORT_REF TimeValue (uint16 aYear, uint16 aMonth, uint16 aDay, uint16 aHour, uint16 aMinute, uint16 aSecond, uint16 aMilliseconds)**
- **OSCL_COND_IMPORT_REF TimeValue (OsclBasicDateTimeStruct in_ts)**
Create a [TimeValue](#) representing the absolute time specified by the BasicDateTimeStruct.
- **OSCL_COND_IMPORT_REF int32 get_local_time ()**
Get the local time after having adjusted for daylight saving.
- **OSCL_COND_IMPORT_REF void set_to_zero ()**
Set the time value to zero (represents a zero interval).
- **OSCL_COND_IMPORT_REF void set_to_current_time ()**
Set the time value to the current system time.
- **OSCL_COND_IMPORT_REF void set_from_ntp_time (const uint32 ntp_offset)**
This method converts a 32-bit NTP offset to system time.
- **OSCL_COND_IMPORT_REF uint32 get_sec () const**
Get a 32 bit value representing the seconds since the (system dependent) epoch.
- **OSCL_COND_IMPORT_REF int32 to_msec () const**
- **OSCL_COND_IMPORT_REF uint32 get_usec () const**
Get a 32 bit value representing the number of microseconds in the time value.
- **OSCL_COND_IMPORT_REF uint64 get_timevalue_in_usec () const**
Get a 64 bit value representing the time value converted to microseconds.
- **OSCL_IMPORT_REF char * get_str_ctime (CtimeStrBuf ctime_strbuf)**
Get a string containing a text representation of this [TimeValue](#) object.

- OSCL_IMPORT_REF int [get_pv8601_str_time](#) (PV8601timeStrBuf time_strbuf)
Get a PV extended text representation of the Time based on the PV 8601 format.
- OSCL_IMPORT_REF int [get_ISO8601_str_time](#) (ISO8601timeStrBuf time_strbuf)
Get a PV extended text representation of the Time based on the ISO 8601 format.
- OSCL_IMPORT_REF char * [get_rfc822_gmtime_str](#) (int max_time_strlen, char *time_str)
Get a text representation of the time in the GMT timezone based on the RFC 822 / RFC 1123 (also described in the HTTP spec RFC 2068 and RFC 2616).
- OSCL_COND_IMPORT_REF bool [is_zero](#) ()
Determine if the time value is zero.
- OSCL_COND_IMPORT_REF bool [is_zulu](#) () const
Manipulate internal flags to mark the time value as being in "zulu" (GMT) time.
- OSCL_COND_IMPORT_REF void [set_zulu](#) (bool is_zulu)
- OSCL_COND_IMPORT_REF [TimeValue & operator=](#) (const [TimeValue &a](#))
Assignment operator.
- OSCL_COND_IMPORT_REF [TimeValue & operator+=](#) (const [TimeValue &a](#))
+ = operator
- OSCL_COND_IMPORT_REF [TimeValue & operator-=](#) (const [TimeValue &a](#))
- = operator
- OSCL_COND_IMPORT_REF [TimeValue & operator*=](#) (const int scale)
This operator scales the time value by a constant.
- OSCL_COND_IMPORT_REF [OsclBasicTimeStruct * get_timeval_ptr](#) ()
- OSCL_COND_IMPORT_REF [TimeValue & operator+=](#) (const int32 aSeconds)
- OSCL_COND_IMPORT_REF [TimeValue & operator-=](#) (const int32 aSeconds)

Friends

- class [NTPTime](#)
- OSCL_COND_IMPORT_REF friend bool [operator==](#) (const [TimeValue &a](#), const [TimeValue &b](#))
- OSCL_COND_IMPORT_REF friend bool [operator!=](#) (const [TimeValue &a](#), const [TimeValue &b](#))
- OSCL_COND_IMPORT_REF friend bool [operator<=](#) (const [TimeValue &a](#), const [TimeValue &b](#))
- OSCL_COND_IMPORT_REF friend bool [operator>=](#) (const [TimeValue &a](#), const [TimeValue &b](#))
- OSCL_COND_IMPORT_REF friend bool [operator<](#) (const [TimeValue &a](#), const [TimeValue &b](#))
- OSCL_COND_IMPORT_REF friend bool [operator>](#) (const [TimeValue &a](#), const [TimeValue &b](#))

7.265.1 Detailed Description

The [TimeValue](#) class represents a time value in a format native to the system. This class provides common time functions independent of any OS. The actual representation used is native to the system that the class is compiled on to increase efficiency. Macros used in this class:

- OSCL_HAS_ANSI_STRING_SUPPORT:

Definitions to determine the type of basic time structure used to store the time

- OSCL_HAS_UNIX_TIME_FUNCS
- OSCL_HAS_SYMBIAN_SUPPORT
- OSCL_HAS_MSWIN_SUPPORT

7.265.2 Constructor & Destructor Documentation

7.265.2.1 OSCL_COND_IMPORT_REF TimeValue::TimeValue ()

Create a [TimeValue](#) representing the current time.

7.265.2.2 OSCL_COND_IMPORT_REF TimeValue::TimeValue (const TimeValue & *Tv*)

Copy constructor.

7.265.2.3 OSCL_COND_IMPORT_REF TimeValue::TimeValue (long *tv*, TimeUnits *units*)

Create a [TimeValue](#) representing an interval of tv units.

Parameters

tv The number of units in the interval to be represented by this [TimeValue](#).

units The units of the tv argument. Must be in the enumeration TimeUnits.

7.265.2.4 OSCL_COND_IMPORT_REF TimeValue::TimeValue (const OsclBasicTimeStruct & *in_tv*)

Create a [TimeValue](#) representing the absolute time specified by the BasicTimeStruct.

Parameters

in_tv OsclBasicTimeStruct as defined for each platform.

7.265.2.5 OSCL_COND_IMPORT_REF TimeValue::TimeValue (const ISO8601timeStrBuf *time_strbuf*)

7.265.2.6 OSCL_COND_IMPORT_REF TimeValue::TimeValue (uint16 *aYear*, uint16 *aMonth*, uint16 *aDay*, uint16 *aHour*, uint16 *aMinute*, uint16 *aSecond*, uint16 *aMilliseconds*)

Create a [TimeValue](#) representing the absolute time specified by the year/month/day/hours/minutes/seconds/microseconds values passed as argument.

[TimeValue](#) constructor that sets time according to following input parameter for a specific date time. Please note that no argument is check for its validity (range etc) It might assert incase wrong argument are passed by user of this api.

Parameters

- ← **uint16** wYear;
- ← **uint16** wMonth; Jan = 1 to Dec = 12
- ← **uint16** wDay; 1-28/29/30/31
- ← **uint16** wHour; 0 to 23
- ← **uint16** wMinute; 0 to 59
- ← **uint16** wSecond; 0 to 59
- ← **uint16** wMilliseconds; 0 to 999

7.265.2.7 OSCL_COND_IMPORT_REF TimeValue::TimeValue (OsclBasicDateTimeStruct *in_ts*)

Create a [TimeValue](#) representing the absolute time specified by the BasicDateTimeStruct.

Parameters

in_ts OsclBasicDateTimeStruct as defined for each platform provides the date in a readable format (i.e. day, date , week etc.) Notes: Implementation incomplete (= not done) on Win32, Wince, Symbian

7.265.3 Member Function Documentation

7.265.3.1 OSCL_IMPORT_REF int TimeValue::get_ISO8601_str_time (ISO8601timeStrBuf *time_strbuf*)

Get a PV extended text representation of the Time based on the ISO 8601 format.

Parameters

time_strbuf A ISO8601timeStrBuf object to which the text representation will be written,

Returns

The number of characters copied to the buffer, not including the terminating null. The returned string is of the form "1985-04-12 10:15:30Z".

7.265.3.2 OSCL_COND_IMPORT_REF int32 TimeValue::get_local_time ()

Get the local time after having adjusted for daylight saving.

Notes: Implementation incomplete (= not done) on Win32, Wince, Symbian

7.265.3.3 OSCL_IMPORT_REF int TimeValue::get_pv8601_str_time (PV8601timeStrBuf *time_strbuf*)

Get a PV extended text representation of the Time based on the PV 8601 format.

Parameters

time_strbuf A PV8601timeStrBuf object to which the text representation will be written,

Returns

The number of characters copied to the buffer, not including the terminating null. The returned string is of the form "19850412T101530.047Z".

7.265.3.4 OSCL_IMPORT_REF char* TimeValue::get_rfc822_gmtime_str (int *max_time_strlen*, char * *time_str*)

Get a text representation of the time in the GMT timezone based on the RFC 822 / RFC 1123 (also described in the HTTP spec RFC 2068 and RFC 2616).

Parameters

max_time_strlen The maximum number of characters that can be written to the buffer.

time_str A pointer to the buffer to which the characters will be written.

Returns

Returns a pointer to the buffer (same as *time_str*) containing a null terminated (c-style) string of the form "Wed, 30 Jun 1993 21:49:08 GMT".

7.265.3.5 OSCL_COND_IMPORT_REF uint32 TimeValue::get_sec () const

Get a 32 bit value representing the seconds since the (system dependent) epoch.

Returns

This call returns a 32 bit value representing the number of seconds since the epoch. On unix systems this represents the number of seconds since the unix epoch Jan 1 1970. On Win32 this represents the number of seconds since Jan 1, 1601. This is intended to be used for intervals rather than for absolute time. (On Win32 for example, a 32 bit value would be too small to represent the number of seconds from the epoch until the current time.)

7.265.3.6 OSCL_IMPORT_REF char* TimeValue::get_str_ctime (CtimeStrBuf *ctime_strbuf*)

Get a string containing a text representation of this [TimeValue](#) object.

Parameters

ctime_strbuf A CtimeStrBuf object to which the text representation will be written,

Returns

A pointer to the input CtimeStrBuf is returned. This string is null terminated of the form "Wed Jun 30 21:49:08 1993".

7.265.3.7 OSCL_COND_IMPORT_REF OsclBasicTimeStruct* TimeValue::get_timeval_ptr ()**7.265.3.8 OSCL_COND_IMPORT_REF uint64 TimeValue::get_timevalue_in_usec () const**

Get a 64 bit value representing the time value converted to microseconds.

Returns

Returns a uint64 value representing the time value in terms of microseconds. The time origin is dependent on platform for which OSCL is compiled. For example for symbian it is midnight, January 1st, 0 AD for windows it is January 1, 1601 (UTC)

7.265.3.9 OSCL_COND_IMPORT_REF uint32 TimeValue::get_usec () const

Get a 32 bit value representing the number of microseconds in the time value.

Returns

Returns a uint32 value representing the number of microseconds in the time value after subtracting off the whole seconds.

7.265.3.10 OSCL_COND_IMPORT_REF bool TimeValue::is_zero ()

Determine if the time value is zero.

7.265.3.11 OSCL_COND_IMPORT_REF bool TimeValue::is_zulu () const

Manipulate internal flags to mark the time value as being in "zulu" (GMT) time.

7.265.3.12 OSCL_COND_IMPORT_REF TimeValue& TimeValue::operator*= (const int *scale*)

This operator scales the time value by a constant.

7.265.3.13 OSCL_COND_IMPORT_REF TimeValue& TimeValue::operator+= (const int32 *aSeconds*)**7.265.3.14 OSCL_COND_IMPORT_REF TimeValue& TimeValue::operator+= (const TimeValue & *a*)**

+= operator

7.265.3.15 OSCL_COND_IMPORT_REF TimeValue& TimeValue::operator-= (const int32 *aSeconds*)**7.265.3.16 OSCL_COND_IMPORT_REF TimeValue& TimeValue::operator-= (const TimeValue & *a*)**

-= operator

7.265.3.17 OSCL_COND_IMPORT_REF TimeValue& TimeValue::operator= (const TimeValue & a)

Assignment operator.

7.265.3.18 OSCL_COND_IMPORT_REF void TimeValue::set_from_ntp_time (const uint32 ntp_offset)

This method converts a 32-bit NTP offset to system time.

This method takes a 32-bit ntp offset which is the number of seconds from 0 h Jan 1, 1900 and converts it to the system time

7.265.3.19 OSCL_COND_IMPORT_REF void TimeValue::set_to_current_time ()

Set the time value to the current system time.

7.265.3.20 OSCL_COND_IMPORT_REF void TimeValue::set_to_zero ()

Set the time value to zero (represents a zero interval).

7.265.3.21 OSCL_COND_IMPORT_REF void TimeValue::set_zulu (bool is_zulu)

7.265.3.22 OSCL_COND_IMPORT_REF int32 TimeValue::to_msec () const

7.265.4 Friends And Related Function Documentation

7.265.4.1 friend class NTPTime [friend]

7.265.4.2 OSCL_COND_IMPORT_REF friend bool operator!= (const TimeValue & a, const TimeValue & b) [friend]

7.265.4.3 OSCL_COND_IMPORT_REF friend bool operator< (const TimeValue & a, const TimeValue & b) [friend]

7.265.4.4 OSCL_COND_IMPORT_REF friend bool operator<= (const TimeValue & a, const TimeValue & b) [friend]

7.265.4.5 OSCL_COND_IMPORT_REF friend bool operator== (const TimeValue & a, const TimeValue & b) [friend]

7.265.4.6 OSCL_COND_IMPORT_REF friend bool operator> (const TimeValue & a, const TimeValue & b) [friend]

7.265.4.7 OSCL_COND_IMPORT_REF friend bool operator>= (const TimeValue & a, const TimeValue & b) [friend]

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

- [oscl_time.h](#)

7.266 TLSStorageOps Class Reference

```
#include <oscl_tls.h>
```

Static Public Member Functions

- static OSCL_IMPORT_REF void [save_registry \(TOsclTlsKey *key, OsclAny *ptr, int32 &\)](#)
- static OSCL_IMPORT_REF [OsclAny * get_registry \(TOsclTlsKey *key\)](#)

7.266.1 Member Function Documentation

7.266.1.1 static OSCL_IMPORT_REF OsclAny* TLSStorageOps::get_registry (TOsclTlsKey **key*) [static]

7.266.1.2 static OSCL_IMPORT_REF void TLSStorageOps::save_registry (TOsclTlsKey * *key*, OsclAny * *ptr*, int32 &) [static]

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

- [oscl_tls.h](#)

7.267 TReadyQueLink Class Reference

```
#include <oscl_scheduler_readyq.h>
```

Public Member Functions

- [TReadyQueLink \(\)](#)

Data Fields

- int32 [iAOPriority](#)
- uint32 [iTimeToRunTicks](#)
- uint32 [iTimeQueuedTicks](#)
- uint32 [iSeqNum](#)
- [OsclAny * iIsIn](#)

7.267.1 Detailed Description

This class defines the queue link, which is common to both ready Q and timer Q. Each AO contains its own queue link object.

7.267.2 Constructor & Destructor Documentation

7.267.2.1 [TReadyQueLink::TReadyQueLink \(\) \[inline\]](#)

References [iAOPriority](#), [iIsIn](#), [iSeqNum](#), [iTimeToRunTicks](#), and [NULL](#).

7.267.3 Field Documentation

7.267.3.1 [int32 TReadyQueLink::iAOPriority](#)

Referenced by [TReadyQueLink\(\)](#).

7.267.3.2 [OsclAny* TReadyQueLink::iIsIn](#)

Referenced by [PVActiveBase::IsInAnyQ\(\)](#), and [TReadyQueLink\(\)](#).

7.267.3.3 [uint32 TReadyQueLink::iSeqNum](#)

Referenced by [TReadyQueLink\(\)](#).

7.267.3.4 [uint32 TReadyQueLink::iTimeQueuedTicks](#)

7.267.3.5 [uint32 TReadyQueLink::iTimeToRunTicks](#)

Referenced by [TReadyQueLink\(\)](#).

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

- [oscl_scheduler_readyq.h](#)

7.268 Oscl_Map< Key, T, Alloc, Compare >::value_compare Class Reference

```
#include <oscl_map.h>
```

Public Member Functions

- bool [operator\(\)](#) (const value_type &x, const value_type &y) const

Protected Member Functions

- [value_compare](#) (Compare c)

Protected Attributes

- Compare [comp](#)

Friends

- class [Oscl_Map< Key, T, Alloc, Compare >](#)

template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> class Oscl_Map< Key, T, Alloc, Compare >::value_compare

7.268.1 Constructor & Destructor Documentation

**7.268.1.1 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>>
Oscl_Map< Key, T, Alloc, Compare >::value_compare::value_compare (Compare c)
[[inline](#), [protected](#)]**

7.268.2 Member Function Documentation

**7.268.2.1 template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> bool
Oscl_Map< Key, T, Alloc, Compare >::value_compare::operator() (const value_type &
x, const value_type & y) const [[inline](#)]**

References [Oscl_Map< Key, T, Alloc, Compare >::value_compare::comp](#), and [Oscl_Pair< T1, T2 >::first](#).

7.268.3 Friends And Related Function Documentation

7.268.3.1 **template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> friend class Oscl_Map< Key, T, Alloc, Compare > [friend]**

7.268.4 Field Documentation

7.268.4.1 **template<class Key, class T, class Alloc, class Compare = Oscl_Less<Key>> Compare Oscl_Map< Key, T, Alloc, Compare >::value_compare::comp [protected]**

Referenced by Oscl_Map< Key, T, Alloc, Compare >::value_compare::operator()().

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

- [oscl_map.h](#)

7.269 WStrPtrLen Struct Reference

This data structure encapsulates a set of functions used to perform.

```
#include <oscl_str_ptr_len.h>
```

Public Member Functions

- `WStrPtrLen (const oscl_wchar *newPtr)`
- `WStrPtrLen (const oscl_wchar *newPtr, uint32 newLen)`
- `WStrPtrLen ()`
- `WStrPtrLen (const WStrPtrLen &rhs)`
- `const oscl_wchar * c_str () const`
- `int32 length () const`
- `int32 size () const`
- `void setPtrLen (const oscl_wchar *newPtr, uint32 newLen)`
- `c_bool isCIEquivalentTo (const WStrPtrLen &rhs) const`
- `int32 operator== (const WStrPtrLen &rhs) const`
- `int32 operator!= (const WStrPtrLen &rhs) const`
- `WStrPtrLen & operator= (const WStrPtrLen &rhs)`
- `WStrPtrLen & operator= (const oscl_wchar *rhs)`

Protected Attributes

- `const oscl_wchar * ptr`
- `int32 len`

7.269.1 Detailed Description

This data structure encapsulates a set of functions used to perform standard string operations. It should be used for null-terminated constant strings (non-modifiable) of wchar type.

7.269.2 Constructor & Destructor Documentation

7.269.2.1 WStrPtrLen::WStrPtrLen (const oscl_wchar * *newPtr*) [inline]

References len, and oscl_strlen().

7.269.2.2 WStrPtrLen::WStrPtrLen (const oscl_wchar * *newPtr*, uint32 *newLen*) [inline]

7.269.2.3 WStrPtrLen::WStrPtrLen () [inline]

7.269.2.4 WStrPtrLen::WStrPtrLen (const WStrPtrLen & *rhs*) [inline]

7.269.3 Member Function Documentation

7.269.3.1 const oscl_wchar* WStrPtrLen::c_str () const [inline]

References ptr.

7.269.3.2 c_bool WStrPtrLen::isCIEquivalentTo (const WStrPtrLen & rhs) const [inline]

References len, OSCL_ASCII_CASE_MAGIC_BIT, and ptr.

7.269.3.3 int32 WStrPtrLen::length () const [inline]

References len.

7.269.3.4 int32 WStrPtrLen::operator!= (const WStrPtrLen & rhs) const [inline]**7.269.3.5 WStrPtrLen& WStrPtrLen::operator= (const oscl_wchar * rhs) [inline]**

References len, oscl_strlen(), and ptr.

7.269.3.6 WStrPtrLen& WStrPtrLen::operator= (const WStrPtrLen & rhs) [inline]

References len, and ptr.

7.269.3.7 int32 WStrPtrLen::operator== (const WStrPtrLen & rhs) const [inline]

References len, oscl_strncmp(), and ptr.

7.269.3.8 void WStrPtrLen::setPtrLen (const oscl_wchar * newPtr, uint32 newLen) [inline]

References len, and ptr.

7.269.3.9 int32 WStrPtrLen::size () const [inline]

References len.

7.269.4 Field Documentation

7.269.4.1 int32 WStrPtrLen::len [protected]

Referenced by isCIEquivalentTo(), length(), operator=(), operator==(), setPtrLen(), size(), and WStrP-trLen().

7.269.4.2 const oscl_wchar* WStrPtrLen::ptr [protected]

Referenced by c_str(), isCIEquivalentTo(), operator=(), operator==(), and setPtrLen().

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

- [oscl_str_ptr_len.h](#)

Chapter 8

File Documentation

8.1 oscl_aostatus.h File Reference

Some basic types used with active objects.

```
#include "osclconfig_proc.h"
#include "oscl_base.h"
#include "oscl_aostatus.inl"
```

Data Structures

- class [OsclAOStatus](#)

Variables

- const int32 [OSCL_REQUEST_ERR_NONE](#) = 0
- const int32 [OSCL_REQUEST_PENDING](#) = (-0x7fffffff)
- const int32 [OSCL_REQUEST_ERR_CANCEL](#) = (-1)
- const int32 [OSCL_REQUEST_ERR_GENERAL](#) = (-2)

8.1.1 Detailed Description

Some basic types used with active objects.

8.2 oscl_assert.h File Reference

The file [oscl_assert.h](#) provides an OSCL_ASSERT macro to document assumptions and test them during development.

```
#include "oscl_base.h"
#include "osclconfig.h"
#include "osclconfig_check.h"
#include "pv_config.h"
```

Defines

- #define [OSCL_ASSERT](#)(_expr) ((_expr)?((void)0):OSCL_Assert(# _expr,__FILE__,__LINE__))

Functions

- OSCL_COND_IMPORT_REF void [_OSCL_Abort](#) ()
This function terminates the current process abnormally.
- OSCL_IMPORT_REF void [OSCL_Assert](#) (const char *expr, const char *filename, int line_number)
OSCL_ASSERT macro evaluates an expression and when the result is false, prints a diagnostic message and aborts the program.

8.2.1 Detailed Description

The file [oscl_assert.h](#) provides an OSCL_ASSERT macro to document assumptions and test them during development.

8.3 oscl_base.h File Reference

The file `oscl_base.h` is the public header that should be included to pick up the platform configuration, basic type definitions, and common macros.

```
#include "osclconfig.h"
#include "oscl_base_macros.h"
#include "oscl_types.h"
#include "osclconfig_check.h"
#include "pv_config.h"
```

Defines

- `#define OSCL_HAS_SINGLETON_SUPPORT 1`

Functions

- `void PVOsclBase_Init ()`
- `void PVOsclBase_Cleanup ()`

8.3.1 Detailed Description

The file `oscl_base.h` is the public header that should be included to pick up the platform configuration, basic type definitions, and common macros.

8.4 oscl_base_alloc.h File Reference

A basic allocator that does not rely on other modules.

```
#include "osclconfig.h"  
#include "oscl_defalloc.h"  
#include "oscl_base.h"  
#include "osclconfig_compiler_warnings.h"  
#include "osclconfig_memory.h"
```

Data Structures

- class [_OsclBasicAllocator](#)

8.4.1 Detailed Description

A basic allocator that does not rely on other modules.

8.5 oscl_base_macros.h File Reference

This file defines common macros and constants for basic compilation support.

```
#include "osclconfig.h"
```

Defines

- #define **NULL** (0)
The NULL_TERM_CHAR is used to terminate c-style strings.
- #define **OSCL_INLINE** inline
- #define **OSCL_COND_EXPORT_REF**
- #define **OSCL_COND_IMPORT_REF**
- #define **OSCL_CONST_CAST**(type, exp) ((type)(exp))
Type casting macros.
- #define **OSCL_STATIC_CAST**(type, exp) ((type)(exp))
- #define **OSCL_REINTERPRET_CAST**(type, exp) ((type)(exp))
- #define **OSCL_DYNAMIC_CAST**(type, exp) ((type)(exp))
- #define **OSCL_VIRTUAL_BASE**(type) type
- #define **OSCL_UNUSED_ARG**(vbl) (void)(vbl)
- #define **OSCL_UNUSED_RETURN**(value) return value
- #define **OSCL_MIN**(a, b) ((a) < (b) ? (a) : (b))
- #define **OSCL_MAX**(a, b) ((a) > (b) ? (a) : (b))
- #define **OSCL_ABS**(a) ((a) > (0) ? (a) : -(a))
- #define **EPV_ARM_GNUC** 1
- #define **EPV_ARM_RVCT** 2
- #define **EPV_ARM_MSEVC** 3

8.5.1 Detailed Description

This file defines common macros and constants for basic compilation support.

8.6 oscl_bin_stream.h File Reference

Defines a set of binary stream classes which handle portable input / output of binary data regardless of the native byte order.

```
#include "oscl_base.h"
#include "oscl_bin_stream.inl"
#include "oscl_mem_basic_functions.h"
```

Data Structures

- class [OsclBinStream](#)
- class [OsclBinIStream](#)
- class [OsclBinIStreamLittleEndian](#)
- class [OsclBinIStreamBigEndian](#)
- class [OsclBinOStream](#)

Class [OsclBinOStream](#) implements the basic stream functions for an output stream.

- class [OsclBinOStreamLittleEndian](#)

Class [OsclBinOStreamLittleEndian](#) implements a binary output stream using little endian byte ordering.

- class [OsclBinOStreamBigEndian](#)

Class [OsclBinOStreamBigEndian](#) implements a binary output stream using big endian byte ordering.

8.6.1 Detailed Description

Defines a set of binary stream classes which handle portable input / output of binary data regardless of the native byte order.

8.7 oscl_byte_order.h File Reference

This file defines functions providing byte ordering utility (e.g., switching between big and little endian orders).

```
#include "oscl_base.h"
#include "oscl_byte_order.inl"
```

Functions

- void [little_endian_to_host](#) (char *data, uint32 size)
Convert little endian to host format.
- void [host_to_little_endian](#) (char *data, unsigned int size)
Convert host to little endian format.
- void [big_endian_to_host](#) (char *data, unsigned int size)
Convert big endian to host format.
- void [host_to_big_endian](#) (char *data, unsigned int size)
Convert host to big endian format.

8.7.1 Detailed Description

This file defines functions providing byte ordering utility (e.g., switching between big and little endian orders).

8.8 oscl_defalloc.h File Reference

The file defines simple default memory allocator classes. These allocators are used by the [Oscl_Vector](#) and [Oscl_Map](#) class, etc.

```
#include "oscl_base.h"
#include "osclconfig_compiler_warnings.h"
#include "oscl_mem_inst.h"
```

Data Structures

- class [Oscl_Alloc](#)
- class [Oscl_Dalloc](#)
- class [Oscl_DefAlloc](#)
- class [OsclDestructDalloc](#)
- class [OsclAllocDestructDalloc](#)
- class [Oscl_TAlloc< T, Alloc >](#)
- struct [Oscl_TAlloc< T, Alloc >::rebind< U, V >](#)

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [ALLOCATE\(n\)](#) allocate(n)
- #define [ALLOC_AND_CONSTRUCT\(n\)](#) alloc_and_construct(n)

8.8.1 Detailed Description

The file defines simple default memory allocator classes. These allocators are used by the [Oscl_Vector](#) and [Oscl_Map](#) class, etc.

8.9 oscl_dll.h File Reference

Defines a DLL entry point.

```
#include "osclconfig.h"
```

Defines

- #define **OSCL_DLL_ENTRY_POINT()** void oscl_dll_entry_point() {}
- #define **OSCL_DLL_ENTRY_POINT_DEFAULT()**

8.9.1 Detailed Description

Defines a DLL entry point.

8.10 oscl_dns.h File Reference

The file [oscl_socket.h](#) defines the OSCL DNS APIs.

```
#include "osclconfig_io.h"
#include "oscl_socket_types.h"
#include "oscl_types.h"
#include "oscl_scheduler_types.h"
#include "oscl_namestring.h"
#include "oscl_stdstring.h"
#include "oscl_defalloc.h"
#include "oscl_socket_types.h"
#include "oscl_heapbase.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
```

Data Structures

- class [OsclDNSObserver](#)
- class [OsclDNS](#)

Enumerations

- enum [TPVDNSFxn](#) { [EPVDNSGetHostByName](#) }
- enum [TPVDNSEvent](#) {
 [EPVDNSSuccess](#), [EPVDNSPending](#), [EPVDNSTimeout](#), [EPVDNSFailure](#),
 [EPVDNSCancel](#) }

8.10.1 Detailed Description

The file [oscl_socket.h](#) defines the OSCL DNS APIs.

8.11 oscl_dns_gethostbyname.h File Reference

```
#include "oscl_dns_method.h"
#include "osclconfig_io.h"
#include "oscl_socket_types.h"
#include "oscl_scheduler_ao.h"
#include "oscl_defalloc.h"
#include "oscl_socket.h"
#include "pvlogger.h"
#include "oscl_dns.h"
```

Data Structures

- class [OsclGetHostByNameMethod](#)
- class [OsclGetHostByNameRequest](#)

8.12 oscl_dns_imp.h File Reference

```
#include "oscl_dns_tuneables.h"
#include "osclconfig_io.h"
#include "osclconfig_proc.h"
```

8.13 oscl_dns_imp_base.h File Reference

```
#include "oscl_socket_imp.h"
#include "osclconfig_io.h"
#include "osclconfig_proc.h"
#include "oscl_socket_types.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_socket_tuneables.h"
#include "oscl_defalloc.h"
#include "oscl_mutex.h"
#include "oscl_base.h"
#include "oscl_dns_tuneables.h"
#include "oscl_dns.h"
```

Data Structures

- class [OsclDNSIBase](#)

8.14 oscl_dns_imp_pv.h File Reference

```
#include "oscl_socket_imp_base.h"
#include "oscl_dns_request.h"
#include "oscl_dns_imp_base.h"
#include "oscl_socket_imp.h"
#include "oscl_dns.h"
```

Data Structures

- class [OsclDNSI](#)

8.15 oscl_dns_method.h File Reference

```
#include "osclconfig_io.h"
#include "oscl_socket_types.h"
#include "oscl_scheduler_ao.h"
#include "oscl_dns.h"
#include "pvlogger.h"
```

Data Structures

- class [OsclDNSMethod](#)
- class [OsclDNSRequestAO](#)

8.16 oscl_dns_param.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_dns_tuneables.h"
#include "oscl_namestring.h"
#include "oscl_dns.h"
#include "oscl_mutex.h"
#include "oscl_semaphore.h"
```

Data Structures

- class [DNSRequestParam](#)
- class [GetHostByNameParam](#)

Typedefs

- typedef [OsclMemAllocator TDNSRequestParamAllocator](#)

8.16.1 Typedef Documentation

8.16.1.1 typedef OsclMemAllocator TDNSRequestParamAllocator

8.17 oscl_dns_request.h File Reference

```
#include "oscl_dns_tuneables.h"
```

8.18 oscl_dns_tuneables.h File Reference

```
#include "osclconfig_io.h"  
#include "osclconfig_proc.h"
```

8.19 oscl_double_list.h File Reference

Internal use types for scheduler.

```
#include "osclconfig_proc.h"
#include "oscl_base.h"
#include "oscl_assert.h"
#include "oscl_double_list.inl"
```

Data Structures

- class [OsclDoubleLink](#)
- class [OsclPriorityLink](#)
- class [OsclDoubleListBase](#)
- class [OsclDoubleList< T >](#)
- class [OsclPriorityList< T >](#)
- class [OsclDoubleRunner< T >](#)

Defines

- #define [QUE_ITER_BEGIN](#)(_type, _qname)
- #define [QUE_ITER_END](#)(_qname)

Functions

- template<class T , class S >
T * [OsclPtrAdd](#) (T *aPtr, S aVal)
- template<class T , class S >
T * [OsclPtrSub](#) (T *aPtr, S aVal)

8.19.1 Detailed Description

Internal use types for scheduler.

8.20 oscl_errno.h File Reference

Defines functions to access additional information on errors where supported through an errno or similar service.

```
#include "oscl_base.h"
#include "osclconfig_error.h"
#include "oscl_errno.inl"
```

Functions

- OSCL_IMPORT_REF bool **OSCL_IsErrnoSupported** ()
oscl_errno.h contains functions to access the global errno
- OSCL_IMPORT_REF int **OSCL_GetLastError** ()
This function returns the value of the system's global error number variable.
- OSCL_IMPORT_REF bool **OSCL_SetLastError** (int newVal)
This function sets the last error code for the system.
- OSCL_IMPORT_REF char * **OSCL_StrError** (int errnum)
This function maps an error number to an error-message string.

8.20.1 Detailed Description

Defines functions to access additional information on errors where supported through an errno or similar service.

8.21 oscl_error.h File Reference

OSCL Error trap and cleanup include file.

```
#include "oscl_heapbase.h"
#include "osclconfig_error.h"
#include "oscl_base.h"
#include "oscl_defalloc.h"
#include "oscl_singleton.h"
#include "oscl_assert.h"
#include "oscl_tls.h"
```

Data Structures

- class [OsclErrorTrap](#)
- class [OsclError](#)
- class [OsclSingletonRegistryEx](#)
- class [OsclSingletonEx< T, ID, Registry >](#)
- class [OsclTLSRegistryEx](#)
- class [OsclTLSEEx< T, ID, Registry >](#)

Defines

- #define [OSCL_TRAPSTACK_PUSH\(a\)](#) OsclError::PushL(a)
- #define [OSCL_TRAPSTACK_POP\(\)](#) OsclError::Pop()
- #define [OSCL_TRAPSTACK_POPDEALLOC\(\)](#) OsclError::PopDealloc()

8.21.1 Detailed Description

OSCL Error trap and cleanup include file.

8.22 oscl_error_allocator.h File Reference

Defines a memory allocation class used by the oscl error layer.

```
#include "oscl_base.h"  
#include "oscl_base_macros.h"  
#include "osclconfig_error.h"  
#include "oscl_assert.h"  
#include "oscl_defalloc.h"
```

Data Structures

- class [OsclErrorAllocator](#)

This class provides static methods to invoke the user defined memory allocation routines.

8.22.1 Detailed Description

Defines a memory allocation class used by the oscl error layer.

8.23 oscl_error_codes.h File Reference

Defines basic error and leave codes.

Defines

- #define `OsclErrNone` 0
- #define `OsclErrGeneral` 100
- #define `OsclErrNoMemory` 101
- #define `OsclErrCancelled` 102
- #define `OsclErrNotSupported` 103
- #define `OsclErrArgument` 104
- #define `OsclErrBadHandle` 105
- #define `OsclErrAlreadyExists` 106
- #define `OsclErrBusy` 107
- #define `OsclErrNotReady` 108
- #define `OsclErrCorrupt` 109
- #define `OsclErrTimeout` 110
- #define `OsclErrOverflow` 111
- #define `OsclErrUnderflow` 112
- #define `OsclErrInvalidState` 113
- #define `OsclErrNoResources` 114
- #define `OsclErrNotInstalled` 115
- #define `OsclErrAlreadyInstalled` 116
- #define `OsclErrSystemCallFailed` 117
- #define `OsclErrNoHandler` 118
- #define `OsclErrThreadContextIncorrect` 119
- #define `OSCL_ERR_NONE` `OsclErrNone`
- #define `OSCL_BAD_ALLOC_EXCEPTION_CODE` `OsclErrNoMemory`
- #define `OsclSuccess` 0
- #define `OsclPending` 1
- #define `OsclFailure` -1

Typedefs

- typedef int32 `OsclLeaveCode`
- typedef int32 `OsclReturnCode`

8.23.1 Detailed Description

Defines basic error and leave codes.

8.24 oscl_error_imp.h File Reference

Internal error implementation support.

```
#include "osclconfig_error.h"
#include "oscl_error_imp_jumps.h"
#include "oscl_heapbase.h"
#include "oscl_defalloc.h"
#include "oscl_assert.h"
#include "oscl_error_codes.h"
#include "oscl_singleton.h"
#include "oscl_tls.h"
#include "oscl_base_alloc.h"
#include "oscl_error_trapcleanup.h"
#include "oscl_error.h"
```

Defines

- #define PVERROR_IMP_JUMPS

8.24.1 Detailed Description

Internal error implementation support.

8.25 oscl_error_imp_cppexceptions.h File Reference

Implementation File for Leave using C++ exceptions.

```
#include "oscl_error_trapcleanup.h"
```

Data Structures

- class [internalLeave](#)

Defines

- #define [PVError_DoLeave\(\)](#) [internalLeave](#) __ilv;__ilv.a=0;throw(__ilv)
- #define [_PV_TRAP\(](#)[_r](#), [_s](#))
- #define [_PV_TRAP_NO_TLS\(](#)[_trapimp](#), [_r](#), [_s](#))

8.25.1 Detailed Description

Implementation File for Leave using C++ exceptions.

8.26 oscl_error_imp_fatalerror.h File Reference

Implementation File for Leave using system fatal error.

```
#include "oscl_assert.h"
```

Defines

- #define [PVError_DoLeave\(\)](#) _OSCL_Abort()
- #define [_PV_TRAP\(__r, __s\)](#)
- #define [_PV_TRAP_NO_TLS\(__tr, __r, __s\)](#)

8.26.1 Detailed Description

Implementation File for Leave using system fatal error.

8.27 oscl_error_imp_jumps.h File Reference

Implementation of using Setjmp / Longjmp.

```
#include "oscl_error_trapcleanup.h"
#include "oscl_assert.h"
#include "osclconfig_error.h"
#include "oscl_defalloc.h"
#include "oscl_error.h"
```

Data Structures

- class [OsclJump](#)

Defines

- #define OSCL_JUMP_MAX_JUMP_MARKS OSCL_MAX_TRAP_LEVELS
- #define internalLeave (-1)
- #define PVError_DoLeave() OsclJump::StaticJump(internalLeave)
- #define _PV_TRAP(__r, __s)
- #define _PV_TRAP_NO_TLS(__trapimp, __r, __s)

8.27.1 Detailed Description

Implementation of using Setjmp / Longjmp.

8.28 oscl_error_trapcleanup.h File Reference

OSCL Error trap and cleanup implementation include file.

```
#include "osclconfig_error.h"
#include "oscl_heapbase.h"
#include "oscl_error_imp.h"
#include "oscl_defalloc.h"
#include "oscl_assert.h"
#include "oscl_error.h"
#include "oscl_base_alloc.h"
#include "oscl_tls.h"
#include "oscl_singleton.h"
```

Data Structures

- class [OsclTrapStackItem](#)
- class [OsclTrapStack](#)
- class [OsclErrorTrapImp](#)

Defines

- #define [OSCL_MAX_TRAP_LEVELS](#) 20
- #define [PVERRORTRAP_REGISTRY_ID](#) [OSCL_TLS_ID_PVERRORTRAP](#)
- #define [PVERRORTRAP_REGISTRY](#) [OsclTLSRegistry](#)

8.28.1 Detailed Description

OSCL Error trap and cleanup implementation include file.

8.29 oscl_exception.h File Reference

contains all the exception handling macros and classes

```
#include "oscl_error.h"
#include "oscl_error_imp.h"
```

Data Structures

- class [OsclException< LeaveCode >](#)

oscl_exception.h contains all the exception handling macros and classes

Defines

- #define [OSCL_LEAVE\(_leave_status\)](#) OsclError::Leave(_leave_status)

Use this macro to cause a Leave. It terminates the execution of the current active function.

- #define [OSCL_TRY\(_leave_status, _statements\)](#) _PV_TRAP(_leave_status,_statements)

This macro will be used to set up a try block.

- #define [OSCL_TRY_NO_TLS\(_trapimp, _leave_status, _statements\)](#) _PV_TRAP_NO_TLS(_-trapimp,_leave_status,_statements)

- #define [OSCL_FIRST_CATCH_ANY\(_leave_status, _statements\)](#) if (_leave_status!=OsclErrNone) { _statements; }

This section defines the macros to be used in the catch block following the try block.

- #define [OSCL_FIRST_CATCH\(_leave_status, _catch_value, _statements\)](#) if (_leave_-status!=OsclErrNone && _leave_status == _catch_value){_statements;}

Use this macro to define a block of code that catches the first exception type thrown in the preceding try block.

- #define [OSCL_CATCH\(_leave_status, _catch_value, _statements\)](#) else if (_leave_-status!=OsclErrNone && _leave_status == _catch_value){_statements;}

Use this macro to define a block of code for catching additional exception types.

- #define [OSCL_CATCH_ANY\(_leave_status, _statements\)](#) else if (_leave_status!=OsclErrNone){ _-statements; }

Use this macro to call a function that will catch all remaining exception types.

- #define [OSCL_LAST_CATCH\(_leave_status\)](#) else if (_leave_status!=OsclErrNone){OSCL_-LEAVE(_leave_status);}

Use this macro if OSCL_CATCH_ANY has not been used. It will mark the end of the catch block.

8.29.1 Detailed Description

contains all the exception handling macros and classes

8.30 oscl_exclusive_ptr.h File Reference

This file defines the [OsclExclusivePtr](#) template class. This class is used to avoid any potential memory leaks that may arise while returning from methods in case of error.

```
#include "oscl_defalloc.h"
#include "oscl_base.h"
```

Data Structures

- class [OsclExclusivePtr< T >](#)

The OsclExclusivePtr class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the OsclExclusivePtr expires, its destructor uses delete to free the memory.

- class [OsclExclusiveArrayPtr< T >](#)

The OsclExclusiveArrayPtr class is a template class that defines an array pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the OsclExclusiveArrayPtr expires, its destructor uses delete to free the memory.

- class [OsclExclusivePtrA< T, Alloc >](#)

The OsclExclusivePtrA class is a template class that defines any pointer like object intended to be assigned an address obtained (directly or or indirectly) through Alloc. When the OsclExclusivePtrA expires, Alloc is used to free the memory.

8.30.1 Detailed Description

This file defines the [OsclExclusivePtr](#) template class. This class is used to avoid any potential memory leaks that may arise while returning from methods in case of error.

8.31 oscl_file_async_read.h File Reference

```
#include "oscl_base.h"
#include "osclconfig_io.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_scheduler_ao.h"
#include "oscl_file_io.h"
#include "oscl_string_containers.h"
#include "oscl_semaphore.h"
```

Data Structures

- class [OsclPtrC](#)
- class [OsclPtr](#)
- class [OsclBuf](#)
- class [OsclAsyncFileBuffer](#)
- class [OsclAsyncFile](#)

8.32 oscl_file_cache.h File Reference

The file [oscl_file_cache.h](#) defines the class [OsclFileCache](#).

```
#include "osclconfig_io.h"  
#include "oscl_base.h"  
#include "oscl_file_io.h"
```

Data Structures

- class [OsclFileCacheBuffer](#)
- class [OsclFileCache](#)

8.32.1 Detailed Description

The file [oscl_file_cache.h](#) defines the class [OsclFileCache](#).

8.33 oscl_file_dir_utils.h File Reference

The file `oscl_file_dir_utils.h` defines some unix-style directory ops.

```
#include "osclconfig_io.h"
#include "oscl_base.h"
```

Data Structures

- struct `oscl_fsstat`
- struct `oscl_stat_buf`

Typedefs

- typedef struct `oscl_fsstat` `OSCL_FSSTAT`
- typedef struct `oscl_stat_buf` `OSCL_STAT_BUF`

Enumerations

- enum `OSCL_FILEMGMT_PERMS` { `OSCL_FILEMGMT_PERMS_READ` = 0x1, `OSCL_FILEMGMT_PERMS_WRITE` = 0x2, `OSCL_FILEMGMT_PERMS_EXECUTE` = 0x4 }
- enum `OSCL_FILEMGMT_MODES` { `OSCL_FILEMGMT_MODE_DIR` = 0x1 }
- enum `OSCL_FILEMGMT_ERR_TYPE` {
 `OSCL_FILEMGMT_E_OK` = 0, `OSCL_FILEMGMT_E_PATH_TOO_LONG`, `OSCL_FILEMGMT_E_PATH_NOT_FOUND`, `OSCL_FILEMGMT_E_ALREADY_EXISTS`,
 `OSCL_FILEMGMT_E_NOT_EMPTY`, `OSCL_FILEMGMT_E_PERMISSION_DENIED`,
 `OSCL_FILEMGMT_E_NO_MATCH`, `OSCL_FILEMGMT_E_UNKNOWN`,
 `OSCL_FILEMGMT_E_SYS_SPECIFIC`, `OSCL_FILEMGMT_E_NOT_IMPLEMENTED` }

Functions

- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_getcwd (oscl_wchar *path, uint32 size)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_getcwd (char *path, uint32 size)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stat (const oscl_wchar *path, OSCL_STAT_BUF *statbuf)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stat (const char *path, OSCL_STAT_BUF *statbuf)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_mkdir (const oscl_wchar *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_mkdir (const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rmdir (const oscl_wchar *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rmdir (const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_chdir (const oscl_wchar *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_chdir (const char *path)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rename (const oscl_wchar *oldpath, const oscl_wchar *newpath)`
- `OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_rename (const char *oldpath, const char *newpath)`

- OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stats (OSCL_FSSTAT *stats, const char *path)
- OSCL_IMPORT_REF OSCL_FILEMGMT_ERR_TYPE oscl_stats (OSCL_FSSTAT *stats, const oscl_wchar *path)

8.33.1 Detailed Description

The file [oscl_file_dir_utils.h](#) defines some unix-style directory ops.

8.34 oscl_file_find.h File Reference

The file [oscl_file_find.h](#) defines the class [Oscl_FileFind](#).

```
#include "osclconfig_io.h"
#include "oscl_base.h"
#include "oscl_mem.h"
#include "oscl_vector.h"
#include "oscl_string_containers.h"
#include "oscl_file_types.h"
```

Data Structures

- class [Oscl_FileFind](#)

8.34.1 Detailed Description

The file [oscl_file_find.h](#) defines the class [Oscl_FileFind](#).

8.35 oscl_file_handle.h File Reference

The file [oscl_file_handle.h](#) defines the class [OsclFileHandle](#).

```
#include "osclconfig_io.h"
#include "oscl_base.h"
```

Data Structures

- class [OsclFileHandle](#)

TypeDefs

- typedef FILE * [TOsclFileHandle](#)

8.35.1 Detailed Description

The file [oscl_file_handle.h](#) defines the class [OsclFileHandle](#).

8.36 oscl_file_io.h File Reference

The file [oscl_file_io.h](#) defines the class [Oscl_File](#). This is the public API to the basic file I/O operations.

```
#include "osclconfig_io.h"
#include "oscl_base.h"
#include "oscl_mem.h"
#include "oscl_vector.h"
#include "oscl_file_server.h"
#include "oscl_file_find.h"
#include "oscl_file_dir_utils.h"
#include "oscl_file_handle.h"
```

Data Structures

- class [Oscl_File](#)
- class [Oscl_File::OsclFixedCacheParam](#)
- class [Oscl_File::OsclCacheObserver](#)

Defines

- #define [TOsclFileOffsetInt32](#) int32

8.36.1 Detailed Description

The file [oscl_file_io.h](#) defines the class [Oscl_File](#). This is the public API to the basic file I/O operations.

8.37 oscl_file_manager.h File Reference

File management class.

```
#include "oscl_base.h"
```

Data Structures

- class [OsclFileManager](#)

8.37.1 Detailed Description

File management class.

8.38 oscl_file_native.h File Reference

The file [oscl_file_native.h](#) defines the class [OsclNativeFile](#). This is the porting layer for basic file I/O operations.

```
#include "osclconfig_io.h"
#include "oscl_base.h"
#include "oscl_aostatus.h"
#include "oscl_file_io.h"
#include "oscl_file_types.h"
```

Data Structures

- class [OsclNativeFile](#)

8.38.1 Detailed Description

The file [oscl_file_native.h](#) defines the class [OsclNativeFile](#). This is the porting layer for basic file I/O operations.

8.39 oscl_file_server.h File Reference

The file [oscl_file_server.h](#) defines the class [Oscl_FileServer](#). This is the porting layer for file server implementations.

```
#include "osclconfig_io.h"
#include "oscl_base.h"
```

Data Structures

- class [Oscl_FileServer](#)

8.39.1 Detailed Description

The file [oscl_file_server.h](#) defines the class [Oscl_FileServer](#). This is the porting layer for file server implementations.

8.40 oscl_file_stats.h File Reference

File stats class.

```
#include "oscl_base.h"
#include "osclconfig_io.h"
```

Data Structures

- class [OsclFileStatsItem](#)
- class [OsclFileStats](#)

Defines

- #define [OSCL_FILE_STATS_LOGGER_NODE](#) "OsclFileStats"

Enumerations

- enum [TOsclFileOp](#) {
 [EOsclFileOp_Open](#), [EOsclFileOp_Close](#), [EOsclFileOp_Read](#), [EOsclFileOp_Write](#),
 [EOsclFileOp_Seek](#), [EOsclFileOp_Tell](#), [EOsclFileOp_Size](#), [EOsclFileOp_Flush](#),
 [EOsclFileOp_EndOfFile](#), [EOsclFileOp_SetSize](#), [EOsclFileOp_NativeOpen](#), [EOsclFileOp_NativeClose](#),
 [EOsclFileOp_NativeRead](#), [EOsclFileOp_NativeWrite](#), [EOsclFileOp_NativeSeek](#), [EOsclFileOp_NativeTell](#),
 [EOsclFileOp_NativeSize](#), [EOsclFileOp_NativeFlush](#), [EOsclFileOp_NativeEndOfFile](#),
 [EOsclFileOp_NativeSetSize](#),
 [EOsclFileOp_Last](#) }

8.40.1 Detailed Description

File stats class.

8.41 oscl_file_types.h File Reference

The file [oscl_file_types.h](#) defines some constants and types for file I/O implementations. Anything that needs to be shared across implementation modules can go here.

Data Structures

- class [OsclNativeFileParams](#)

Defines

- #define [OSCL_IO_FILENAME_MAXLEN](#) 512
- #define [OSCL_IO_EXTENSION_MAXLEN](#) 512
- #define [OSCL_FILE_WCHAR_PATH_DELIMITER](#) _STRLIT("/")
- #define [OSCL_FILE_CHAR_PATH_DELIMITER](#) _STRLIT_CHAR("/")

8.41.1 Detailed Description

The file [oscl_file_types.h](#) defines some constants and types for file I/O implementations. Anything that needs to be shared across implementation modules can go here.

8.42 oscl_heapbase.h File Reference

OSCL Heap Base include file.

```
#include "osclconfig_error.h"
#include "oscl_base.h"
#include "oscl_heapbase.inl"
```

Data Structures

- class [_OsclHeapBase](#)
- class [OsclTrapItem](#)

Typedefs

- `typedef void(* OsclTrapOperation)(OsclAny *)`

8.42.1 Detailed Description

OSCL Heap Base include file.

8.43 oscl_init.h File Reference

Global oscl initialization.

```
#include "oscl_base.h"  
#include <stdio.h>
```

Data Structures

- class [OsclSelect](#)
- class [OsclInit](#)

8.43.1 Detailed Description

Global oscl initialization.

8.44 oscl_int64_utils.h File Reference

```
#include "oscl_base.h"
```

Data Structures

- class [Oscl_Int64_Utils](#)
The Oscl_Int64_Utils class provides a wrapper for commonly used int64/uint64 operations.
- struct [OsclInteger64Transport](#)

Typedefs

- typedef struct [OsclInteger64Transport _OsclInteger64Transport](#)

8.44.1 Typedef Documentation

8.44.1.1 typedef struct OsclInteger64Transport _OsclInteger64Transport

[OsclInteger64Transport](#) Structure

Structure to only transport 64-bit integer values uint64 and int64 could be classes so needed for cases where having a class will not work.

8.45 oscl_ip_socket.h File Reference

```
#include "oscl_socket_types.h"  
#include "oscl_vector.h"  
#include "oscl_mem.h"
```

Data Structures

- class [OsclIPSocketI](#)

8.46 oscl_linked_list.h File Reference

The file [oscl_linked_list.h](#) defines the template class [Oscl_Linked_List](#) which has a very similar API as the STL Vector class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

```
#include "oscl_base.h"
#include "oscl_defalloc.h"
#include "oscl_opaque_type.h"
#include "oscl_assert.inl"
```

Data Structures

- class [LinkedListElement< LLClass >](#)
- class [Oscl_Linked_List_Base](#)
- class [Oscl_Linked_List< LLClass, Alloc >](#)
- class [Oscl_MTLinked_List< LLClass, Alloc, TheLock >](#)

8.46.1 Detailed Description

The file [oscl_linked_list.h](#) defines the template class [Oscl_Linked_List](#) which has a very similar API as the STL Vector class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

8.47 oscl_lock_base.h File Reference

This file defines an abstract lock class, [OsclLockBase](#), that is used for APIs potentially requiring multi-thread safety. A null-lock implementation, [OsclNullLock](#), is also provided for single-thread configurations (basically a noop for lock/unlock). Also provides the [OsclScopedLock](#) class which is template class takes care of freeing the lock when the class goes out of scope.

Data Structures

- class [OsclLockBase](#)
- class [OsclNullLock](#)
- class [OsclScopedLock< LockClass >](#)

The [OsclScopedLock](#) class is a template class that handles unlocking an abstract class on destruction. This is very useful for ensuring that the lock is released when the [OsclScopedLock](#) goes out of scope.

8.47.1 Detailed Description

This file defines an abstract lock class, [OsclLockBase](#), that is used for APIs potentially requiring multi-thread safety. A null-lock implementation, [OsclNullLock](#), is also provided for single-thread configurations (basically a noop for lock/unlock). Also provides the [OsclScopedLock](#) class which is template class takes care of freeing the lock when the class goes out of scope.

8.48 oscl_map.h File Reference

The file `oscl_map.h` defines the template class `Oscl_Map` which has a very similar API as the STL Map class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

```
#include "oscl_base.h"
#include "oscl_tree.h"
#include "oscl_defalloc.h"
#include "osclconfig_compiler_warnings.h"
```

Data Structures

- struct `Oscl_Less< T >`
- struct `Oscl_Select1st< V, U >`
- class `Oscl_Map< Key, T, Alloc, Compare >`
- class `Oscl_Map< Key, T, Alloc, Compare >::value_compare`

Defines

- #define `OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE`

8.48.1 Detailed Description

The file `oscl_map.h` defines the template class `Oscl_Map` which has a very similar API as the STL Map class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

8.49 oscl_math.h File Reference

Provides math functions.

```
#include "osclconfig_util.h"
#include "oscl_base.h"
#include "oscl_math.inl"
```

Functions

- OSCL_COND_IMPORT_REF double [oscl_log](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_log10](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_sqrt](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_pow](#) (double x, double y)
- OSCL_COND_IMPORT_REF double [oscl_exp](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_sin](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_cos](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_tan](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_asin](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_atan](#) (double value)
- OSCL_COND_IMPORT_REF double [oscl_floor](#) (double value)

8.49.1 Detailed Description

Provides math functions.

8.50 oscl_media_data.h File Reference

Defines a container class for media data made up of a collection of memory fragments.

```
#include "oscl_base.h"
#include "oscl_mem_basic_functions.h"
#include "oscl_media_status.h"
```

Data Structures

- class [MemAllocator< T >](#)
- class [BufferMgr](#)
- class [BufferState](#)
- class [BufferFragment](#)
- class [BuffFragGroup< ChainClass, max_frags >](#)
- class [MediaData< ChainClass, max_frags, local_bufsize >](#)

Typedefs

- typedef void(* [BufferFreeFuncPtr](#))(void *)
- typedef uint32 [MediaTimestamp](#)

8.50.1 Detailed Description

Defines a container class for media data made up of a collection of memory fragments.

8.51 oscl_media_status.h File Reference

Defines a status values for the [MediaData](#) containers.

Data Structures

- class [BuffFragStatusClass](#)
- class [MediaStatusClass](#)

Variables

- const int32 [APPEND_MEDIA_AT_END](#) = -1

8.51.1 Detailed Description

Defines a status values for the [MediaData](#) containers.

8.52 oscl_mem.h File Reference

This file contains basic memory definitions for common use across platforms.

```
#include "osclconfig_memory.h"
#include "oscl_base.h"
#include "oscl_types.h"
#include "oscl_assert.h"
#include "oscl_mem_basic_functions.h"
#include "oscl_lock_base.h"
#include "osclconfig_compiler_warnings.h"
#include "oscl_mem_inst.h"
#include "oscl_heapbase.h"
#include "oscl_defalloc.h"
#include "oscl_refcounter.h"
#include "oscl_error.h"
#include "oscl_exception.h"
#include "oscl_mem.inl"
```

Data Structures

- class [OsclMem](#)
- class [OsclAuditCB](#)
- class [OsclMemAllocator](#)
- class [OsclMemBasicAllocator](#)
- class [OsclMemAllocDestructDealloc< T >](#)
- class [OsclMemBasicAllocDestructDealloc< T >](#)
- class [OsclMemGlobalAuditObject](#)
- class [HeapBase](#)

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [OSCL_CLEANUP_BASE_CLASS\(T\)](#) _OSCL_CLEANUP_BASE_CLASS(T)
- #define [OSCL_ALLOC_NEW\(T_allocator, T, params\)](#) new(T_allocator.allocate(1)) T params
- #define [OSCL_TRAP_ALLOC_NEW\(T_ptr, T_allocator, T, params\)](#) _OSCL_TRAP_NEW(T_allocator.allocate(1),T_allocator.deallocate,T_ptr,T,params)
- #define [OSCL_ALLOC_DELETE\(ptr, T_allocator, T\)](#)
- #define [OSCL_MALLOC\(count\)](#) _oscl_malloc(count)
- #define [oscl_malloc\(a\)](#) OSCL_MALLOC(a)
- #define [OSCL_DEFAULT_MALLOC\(x\)](#) OSCL_MALLOC(x)
- #define [OSCL_AUDIT_MALLOC\(auditCB, count\)](#) _oscl_malloc(count)
- #define [OSCL_CALLOC\(num, size\)](#) _oscl_calloc(num,size)
- #define [oscl_calloc\(a, b\)](#) OSCL_CALLOC(a,b)
- #define [OSCL_AUDIT_CALLOC\(auditCB, num, size\)](#) _oscl_calloc(num,size)

- #define OSCL_REALLOC(ptr, new_size) _oscl_realloc(ptr,new_size)
- #define oscl_realloc(a, b) OSCL_REALLOC(a,b)
- #define OSCL_AUDIT_REALLOC(auditCB, ptr, new_size) _oscl_realloc(ptr,new_size)
- #define OSCL_FREE(ptr) _oscl_free(ptr)
- #define oscl_free(x) OSCL_FREE(x)
- #define OSCL_DEFAULT_FREE(x) OSCL_FREE(x)
- #define OSCL_NEW(T, params) new T params
- #define OSCL_PLACEMENT_NEW(ptr, constructor) new(ptr) constructor
- #define OSCL_TRAP_NEW(T_ptr, T, params) _OSCL_TRAP_NEW(_oscl_default_new(sizeof(T)),_oscl_free,T_ptr,T,params)
- #define OSCL_AUDIT_NEW(auditCB, T, params) new(_oscl_default_new(sizeof(T))) T params
- #define OSCL_TRAP_AUDIT_NEW(T_ptr, auditCB, T, params) _OSCL_TRAP_NEW(_oscl_default_new(sizeof(T)),_oscl_free,T_ptr,T,params)
- #define OSCL_DELETE(ptr)
- #define OSCL_AUDIT_ARRAY_NEW(auditCB, T, count) new(_oscl_default_new(sizeof(T)*(count))) T
- #define OSCL_ARRAY_NEW(T, count) new T[count]
- #define OSCL_ARRAY_DELETE(ptr) delete [] ptr
- #define OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE
- #define _OSCL_TRAP_NEW(exp, freeFunc, T_ptr, T, params)
- #define _OSCL_CLEANUP_BASE_CLASS(T) this->T::~T()

Functions

- OSCL_COND_IMPORT_REF uint oscl_mem_aligned_size (uint size)
- OSCL_IMPORT_REF void OsclMemInit (OsclAuditCB &auditCB)
- OSCL_IMPORT_REF void * _oscl_default_new (size_t nBytes)
- void * operator new (size_t aSize)
- void operator delete (void *aPtr)
- void * operator new[] (size_t aSize)
- void operator delete[] (void *aPtr)

8.52.1 Detailed Description

This file contains basic memory definitions for common use across platforms. This is the main entry point header file for the OSCL memory library. It should be the only one users directly include. Basic memory copy, compare, and move functions are defined here as well as the allocation functions.

8.53 oscl_mem_audit.h File Reference

This file contains the definition and partial implementation of MM_Audit class.

```
#include "oscl_lock_base.h"
#include "oscl_base_alloc.h"
#include "oscl_tagtree.h"
#include "oscl_mem.h"
#include "osclconfig_memory.h"
#include "oscl_base.h"
#include "oscl_types.h"
#include "oscl_assert.h"
#include "oscl_mem_basic_functions.h"
#include "osclconfig_compiler_warnings.h"
#include "oscl_mem_inst.h"
#include "oscl_heapbase.h"
#include "oscl_defalloc.h"
#include "oscl_refcounter.h"
#include "oscl_error.h"
#include "oscl_exception.h"
#include "oscl_mem.inl"
#include "oscl_mem.h"
```

Data Structures

- struct [MM_Stats_t](#)
- struct [MM_FailInsertParam](#)
- class [OsclMemStatsNode](#)
- struct [MM_Stats_CB](#)
- struct [MM_AllocQueryInfo](#)
- struct [MM_AllocInfo](#)
- struct [MM_AllocNode](#)
- struct [MM_AuditOverheadStats](#)
- class [MM_Audit_Imp](#)
- class [OsclMemAudit](#)

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [MM_ALLOC_MAX_QUERY_FILENAME_LEN](#) 128
- #define [MM_ALLOC_MAX_QUERY_TAG_LEN](#) 64
- #define [MM_AUDIT_VALIDATE_BLOCK](#) 1
- #define [MM_AUDIT_PREFILL_FLAG](#) 0x1

- #define MM_AUDIT_POSTFILL_FLAG 0x2
- #define MM_AUDIT_VALIDATE_ALL_HEAP_FLAG 0x4
- #define MM_AUDIT_VALIDATE_ON_FREE_FLAG 0x8
- #define MM_AUDIT_ALLOC_NODE_ENABLE_FLAG 0x10
- #define MM_AUDIT_SUPPRESS_FILENAME_FLAG 0x20
- #define DEFAULT_MM_AUDIT_MODE 0

Typedefs

- typedef OSCLMemAutoPtr< char, Oscl_TAlloc< char, OsclMemBasicAllocator > > MMAuditCharAutoPtr
- typedef OSCLMemAutoPtr< uint8, Oscl_TAlloc< uint8, _OsclBasicAllocator > > MMAuditUInt8AutoPtr
- typedef OSCLMemAutoPtr< MM_AllocNode, Oscl_TAlloc< MM_AllocNode, OsclMemBasicAllocator > > MM_AllocNodeAutoPtr
- typedef OSCLMemAutoPtr< OsclMemStatsNode, Oscl_TAlloc< OsclMemStatsNode, OsclMemBasicAllocator > > MM_StatsNodeTagTreeType
- typedef OSCLMemAutoPtr< OsclMemStatsNode, Oscl_TAlloc< OsclMemStatsNode, OsclMemBasicAllocator > > OsclMemStatsNodeAutoPtr
- typedef Oscl_TAlloc< MM_StatsNodeTagTreeType, OsclMemBasicAllocator > TagTree_Allocator
- typedef Oscl_TagTree< MM_StatsNodeTagTreeType, TagTree_Allocator > OsclTagTreeType

8.53.1 Detailed Description

This file contains the definition and partial implementation of MM_Audit class.

8.54 oscl_mem_audit_internals.h File Reference

This file contains the internal definitions for the mem audit library.

```
#include "oscl_base.h"
#include "oscl_mem_audit.h"
#include "oscl_lock_base.h"
#include "oscl_base_alloc.h"
#include "oscl_tagtree.h"
#include "oscl_mem.h"
#include "oscl_mem_auto_ptr.h"
#include "osclconfig_compiler_warnings.h"
#include "oscl_mem_inst.h"
```

Data Structures

- struct [MM_AllocBlockHdr](#)
- struct [MM_AllocBlockFence](#)

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [MM_AUDIT_ALLOC_NODE_SUPPORT](#) 1
- #define [MM_AUDIT_FENCE_SUPPORT](#) 0
- #define [MM_AUDIT_INCLUDE_ALL_HEAP_VALIDATION](#) 1
- #define [MM_AUDIT_FILL_SUPPORT](#) 0
- #define [MM_AUDIT_FAILURE_SIMULATION_SUPPORT](#) 1
- #define [FENCE_PATTERN](#) 0xAA
- #define [MIN_FENCE_SIZE](#) 4
- #define [MEM_ALIGN_SIZE](#) 8
- #define [COMPUTE_MEM_ALIGN_SIZE](#)(x, y, z) (y+(((x+y)%z) ? (z - (x+y)%z) : 0))
- #define [DEFAULT_PREFILL_PATTERN](#) 0x96
- #define [DEFAULT_POSTFILL_PATTERN](#) 0x5A

8.54.1 Detailed Description

This file contains the internal definitions for the mem audit library.

8.55 oscl_mem_auto_ptr.h File Reference

This file defines the oscl_mem_auto_ptr template class. This class is used to avoid any potential memory leaks that may arise while returning from methods in case of error.

```
#include "osclconfig_memory.h"
#include "oscl_mem.h"
#include "osclconfig_compiler_warnings.h"
```

Data Structures

- class [OSCLMemAutoPtr< T, _Allocator >](#)

The oscl_auto_ptr class is a template class that defines a pointer like object intended to be assigned an address obtained (directly or or indirectly) by new. When the oscl_auto_ptr expires, its destructor uses delete to free the memory.

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)
- #define [OSCL_DISABLE_WARNING_RETURN_TYPE_NOT_UDT](#)

8.55.1 Detailed Description

This file defines the oscl_mem_auto_ptr template class. This class is used to avoid any potential memory leaks that may arise while returning from methods in case of error.

8.56 oscl_mem_basic_functions.h File Reference

This file contains prototypes for the basic memory functions.

```
#include "oscl_base_macros.h"
#include "oscl_mem_basic_functions.inl"
#include "osclconfig_memory.h"
#include "osclconfig_compiler_warnings.h"
```

Functions

- OSCL_COND_IMPORT_REF void * [_oscl_malloc](#) (int32 count)
- OSCL_COND_IMPORT_REF void * [_oscl_calloc](#) (int32 nelems, int32 size)
- OSCL_COND_IMPORT_REF void * [_oscl_realloc](#) (void *src, int32 count)
- OSCL_COND_IMPORT_REF void [_oscl_free](#) (void *src)
- OSCL_COND_IMPORT_REF void * [oscl_memcpy](#) (void *dest, const void *src, uint32 count)
- OSCL_COND_IMPORT_REF void * [oscl_memmove](#) (void *dest, const void *src, uint32 count)
- OSCL_COND_IMPORT_REF void * [oscl_memmove32](#) (void *dest, const void *src, uint32 count)
- OSCL_COND_IMPORT_REF void * [oscl_memset](#) (void *dest, uint8 val, uint32 count)
- OSCL_COND_IMPORT_REF int [oscl_memcmp](#) (const void *buf1, const void *buf2, uint32 count)

8.56.1 Detailed Description

This file contains prototypes for the basic memory functions.

8.57 oscl_mem_inst.h File Reference

The file defines default memory instrumentation level.

```
#include "osclconfig_memory.h"
```

Defines

- #define PVMEM_INST_LEVEL 0

8.57.1 Detailed Description

The file defines default memory instrumentation level.

8.58 oscl_mem_mempool.h File Reference

This file contains the definition of memory pool allocators.

```
#include "oscl_mem.h"  
#include "oscl_defalloc.h"  
#include "oscl_vector.h"
```

Data Structures

- class [OsclMemPoolFixedChunkAllocatorObserver](#)
- class [OsclMemPoolFixedChunkAllocator](#)
- class [OsclMemPoolResizableAllocatorObserver](#)
- class [OsclMemPoolResizableAllocatorMemoryObserver](#)
- class [OsclMemPoolResizableAllocator](#)
- struct [OsclMemPoolResizableAllocator::MemPoolBufferInfo](#)
- struct [OsclMemPoolResizableAllocator::MemPoolBlockInfo](#)

8.58.1 Detailed Description

This file contains the definition of memory pool allocators.

8.59 oscl_mutex.h File Reference

This file provides implementation of mutex.

```
#include "osclconfig_proc.h"
#include "oscl_types.h"
#include "oscl_base.h"
#include "oscl_thread.h"
#include "oscl_lock_base.h"
```

Data Structures

- class [OsclMutex](#)
- class [OsclThreadLock](#)

Typedefs

- typedef [OsclMutex OsclNoYieldMutex](#)

8.59.1 Detailed Description

This file provides implementation of mutex.

8.59.2 Typedef Documentation

8.59.2.1 typedef OsclMutex OsclNoYieldMutex

Class OsclNoYieldMutex can be used in use cases where there will be no CPU-yielding operation done while the Mutex is locked.

CPU-yielding operations include [OsclMutex::Lock](#), [OsclSemaphore::Wait](#), [OsclThread::Sleep](#), and [OsclBrewThreadUtil::BThreadYield](#).

The behavior of OsclNoYieldMutex depends on whether the threading model is pre-emptive or not. When threading is pre-emptive, it is identical to [OsclMutex](#). When threading is non-pre-emptive, it is a NO-OP.

An example of this type of use case is for simple data protection.

8.60 oscl_namestring.h File Reference

Name string class include file.

```
#include "oscl_base.h"
```

Data Structures

- class [OsclNameString<__len>](#)

8.60.1 Detailed Description

Name string class include file.

8.61 oscl_opaque_type.h File Reference

The file [oscl_opaque_type.h](#) defines pure virtual classes for working with opaque types.

```
#include "oscl_base.h"
```

Data Structures

- class [Oscl_Opaque_Type_Alloc](#)
- class [Oscl_Opaque_Type_Compare](#)
- class [Oscl_Opaque_Type_Alloc_LL](#)

8.61.1 Detailed Description

The file [oscl_opaque_type.h](#) defines pure virtual classes for working with opaque types.

8.62 oscl_priqueue.h File Reference

Implements a priority queue data structure similar to STL.

```
#include "oscl_base.h"
#include "oscl_vector.h"
```

Data Structures

- class [OsclPriorityQueueBase](#)
- class [OsclCompareLess< T >](#)
- class [OsclPriorityQueue< Qelem, Alloc, Container, Compare >](#)

8.62.1 Detailed Description

Implements a priority queue data structure similar to STL. Implements a priority queue data structure similar to the STL class. The properties of the class include O(Log_2(N)) insertion and deletion complexity and O(1) complexity to access the top priority item.

8.63 oscl_procstatus.h File Reference

Data Structures

- class [OsclProcStatus](#)

8.64 oscl_queue.h File Reference

The file [oscl_queue.h](#) defines the template class [Oscl_Queue](#). It is similar to the STL::queue class, with some differences:

- less complete
- based on array rather than a deque
- some interfaces modeled on oscl_vector, for ease of transition Memory allocation is abstracted through the use of an allocator template parameter.

```
#include "oscl_base.h"
#include "oscl_mem_basic_functions.h"
#include "oscl_assert.h"
#include "oscl_opaque_type.h"
```

Data Structures

- class [Oscl_Queue_Base](#)
- class [Oscl_Queue< T, Alloc >](#)

8.64.1 Detailed Description

The file [oscl_queue.h](#) defines the template class [Oscl_Queue](#). It is similar to the STL::queue class, with some differences:

- less complete
- based on array rather than a deque
- some interfaces modeled on oscl_vector, for ease of transition Memory allocation is abstracted through the use of an allocator template parameter.

8.65 oscl_rand.h File Reference

Provides pseudo-random number generation.

```
#include "osclconfig_util.h"
#include "oscl_base.h"
#include "oscl_mem_basic_functions.h"
#include "oscl_rand.inl"
```

Data Structures

- class [OsclRand](#)

8.65.1 Detailed Description

Provides pseudo-random number generation.

8.66 oscl_refcounter.h File Reference

A general purpose reference counter to object lifetimes.

```
#include "oscl_assert.h"  
#include "oscl_defalloc.h"
```

Data Structures

- class [OsclRefCounter](#)
- class [OsclRefCounterDA](#)
- class [OsclRefCounterSA< DeallocType >](#)
- class [OsclRefCounterMTDA< LockType >](#)
- class [OsclRefCounterMTSA< DeallocType, LockType >](#)
- class [Oscl_DefAllocWithRefCounter< DefAlloc >](#)

8.66.1 Detailed Description

A general purpose reference counter to object lifetimes.

8.67 oscl_refcounter_memfrag.h File Reference

This file provides the definition of reference counted memory fragment, which provides access to a buffer and helps manage its lifetime through the refcount.

```
#include "oscl_base.h"
#include "oscl_refcounter.h"
#include "oscl_assert.h"
#include "oscl_defalloc.h"
```

Data Structures

- class [OsclRefCounterMemFrag](#)

8.67.1 Detailed Description

This file provides the definition of reference counted memory fragment, which provides access to a buffer and helps manage its lifetime through the refcount.

8.68 oscl_registry_access_client.h File Reference

Client-side implementation Registry Access implementation.

```
#include "oscl_registry_types.h"  
#include "oscl_types.h"  
#include "oscl_string_containers.h"  
#include "oscl_vector.h"  
#include "oscl_mem.h"
```

Data Structures

- class [OsclRegistryAccessClient](#)

8.68.1 Detailed Description

Client-side implementation Registry Access implementation.

8.69 oscl_registry_client.h File Reference

Client-side implementation of OsclRegistry.

```
#include "oscl_registry_types.h"  
#include "oscl_mem.h"  
#include "oscl_string.h"
```

Data Structures

- class [OsclRegistryClient](#)

8.69.1 Detailed Description

Client-side implementation of OsclRegistry.

8.70 oscl_registry_client_impl.h File Reference

Client-side implementation of OsclRegistryInterface.

```
#include "oscl_base.h"
#include "osclconfig_proc.h"
#include "oscl_vector.h"
#include "oscl_string.h"
#include "oscl_registry_types.h"
#include "oscl_registry_serv_impl_tls.h"
```

Data Structures

- class [OsclRegistryClientImpl](#)
- class [OsclRegistryAccessClientImpl](#)
- class [OsclRegistryClientTlsImpl](#)
- class [OsclRegistryAccessClientTlsImpl](#)

8.70.1 Detailed Description

Client-side implementation of OsclRegistryInterface.

8.71 oscl_registry_serv_impl.h File Reference

Server-side implementation of OsclRegistry interfaces.

```
#include "oscl_base.h"
#include "osclconfig_proc.h"
#include "oscl_registry_types.h"
#include "oscl_string.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_mutex.h"
```

Data Structures

- class [OsclComponentRegistryElement](#)
- class [OsclComponentRegistryData](#)
- class [OsclComponentRegistry](#)

8.71.1 Detailed Description

Server-side implementation of OsclRegistry interfaces.

8.72 oscl_registry_serv_impl_global.h File Reference

```
#include "osclconfig_proc.h"  
#include "oscl_base.h"
```

8.73 oscl_registry_serv_impl_tls.h File Reference

```
#include "osclconfig_proc.h"
#include "oscl_registry_serv_impl.h"
#include "oscl_base.h"
#include "oscl_registry_types.h"
#include "oscl_string.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_mutex.h"
```

Data Structures

- class [OsclRegistryServTlsImpl](#)

8.74 oscl_registry_types.h File Reference

Common types used in Oscl registry interfaces.

```
#include "oscl_types.h"
#include "oscl_string_containers.h"
```

Data Structures

- class [OsclRegistryAccessElement](#)

Typedefs

- typedef [OsclAny](#) * [OsclComponentFactory](#)

8.74.1 Detailed Description

Common types used in Oscl registry interfaces.

8.75 oscl_scheduler.h File Reference

```
#include "oscl_scheduler_types.h"
#include "osclconfig_proc.h"
#include "oscl_base.h"
#include "oscl_aostatus.inl"
#include "oscl_heapbase.h"
#include "oscl_scheduler_types.h"
#include "oscl_namestring.h"
#include "oscl_aostatus.h"
#include "oscl_assert.h"
#include "oscl_double_list.inl"
#include "oscl_types.h"
#include "oscl_thread.h"
#include "oscl_lock_base.h"
#include "oscl_priqueue.h"
#include "oscl_base_alloc.h"
#include "oscl_mem.h"
#include "oscl_mutex.h"
#include "oscl_string_containers.h"
#include "oscl_scheduler_threadcontext.h"
#include "oscl_semaphore.h"
#include "oscl_scheduler_readyq.h"
#include "oscl_defalloc.h"
```

Data Structures

- class [OsclScheduler](#)
- class [OsclSchedulerObserver](#)
- class [OsclExecSchedulerCommonBase](#)
- class [OsclExecScheduler](#)
- class [PVSchedulerStopper](#)

Defines

- #define [PVSCHEDNAMELEN](#) 30

8.76 oscl_scheduler_ao.h File Reference

Oscl Scheduler user execution object classes.

```
#include "oscl_scheduler_types.h"
#include "oscl_scheduler_aobase.h"
#include "oscl_mem.h"
```

Data Structures

- class [OsclActiveObject](#)
- class [OsclTimerObject](#)

8.76.1 Detailed Description

Oscl Scheduler user execution object classes.

8.77 oscl_scheduler_aobase.h File Reference

Oscl Scheduler internal active object classes.

```
#include "oscl_scheduler_types.h"
#include "oscl_namestring.h"
#include "oscl_scheduler_threadcontext.h"
#include "oscl_scheduler_readyq.h"
#include "oscl_string_containers.h"
```

Data Structures

- class [PVActiveBase](#)

Defines

- #define [OSCL_ZEROIZE](#)(ptr, size) oscl_memset(ptr, 0, size)
- #define [PVEEXECNAMELEN](#) 30

8.77.1 Detailed Description

Oscl Scheduler internal active object classes.

8.78 oscl_scheduler_readyq.h File Reference

ready q types for oscl scheduler

```
#include "oscl_scheduler_types.h"
#include "oscl_scheduler_tuneables.h"
#include "oscl_priqueue.h"
#include "oscl_base_alloc.h"
#include "oscl_semaphore.h"
#include "oscl_mem.h"
#include "oscl_mutex.h"
#include "oscl_string_containers.h"
```

Data Structures

- class [OsclReadyAlloc](#)
- class [OsclReadyCompare](#)
- class [OsclTimerCompare](#)
- class [OsclReadyQ](#)
- class [OsclTimerQ](#)
- class [TReadyQueLink](#)

Typedefs

- typedef [PVActiveBase](#) * TOsclReady

8.78.1 Detailed Description

ready q types for oscl scheduler

8.79 oscl_scheduler_threadcontext.h File Reference

Thread context functions needed by oscl scheduler.

```
#include "oscl_aostatus.h"  
#include "oscl_double_list.h"  
#include "oscl_mutex.h"
```

Data Structures

- class [PVThreadContext](#)

Enumerations

- enum [TPVThreadContext](#) { [EPVThreadContext_InThread](#), [EPVThreadContext_OsclThread](#), [EPVThreadContext_NonOsclThread](#), [EPVThreadContext_Undetermined](#) }

8.79.1 Detailed Description

Thread context functions needed by oscl scheduler.

8.80 oscl_scheduler_tuneables.h File Reference

Tunable settings for Oscl Scheduler.

```
#include "osclconfig_proc.h"
```

Defines

- #define PV_SCHED_ENABLE_LOOP_STATS 0
- #define PV_SCHED_ENABLE_PERF_LOGGING 1
- #define PV_SCHED_ENABLE_THREAD_CONTEXT_CHECKS 1
- #define PV_SCHED_LOG_Q 0
- #define PV_SCHED_CHECK_Q 0
- #define PV_SCHED_FAIR_SCHEDULING 1
- #define OSCL_PERF_SUMMARY_LOGGING 0

8.80.1 Detailed Description

Tunable settings for Oscl Scheduler.

8.81 oscl_scheduler_types.h File Reference

Scheduler common types include file.

```
#include "osclconfig_proc.h"
#include "oscl_aostatus.h"
#include "oscl_heapbase.h"
```

Data Structures

- class [OsclExecSchedulerBase](#)

8.81.1 Detailed Description

Scheduler common types include file.

8.82 oscl_semaphore.h File Reference

This file provides implementation of mutex.

```
#include "osclconfig_proc.h"
#include "oscl_thread.h"
```

Data Structures

- class [OsclSemaphore](#)

8.82.1 Detailed Description

This file provides implementation of mutex.

8.83 oscl_shared_ptr.h File Reference

This file defines a template class [OsclSharedPtr](#) which is a "smart pointer" to the parameterized type.

```
#include "oscl_base.h"
#include "oscl_refcounter.h"
#include "osclconfig_compiler_warnings.h"
```

Data Structures

- class [OsclSharedPtr< TheClass >](#)
A parameterized smart pointer class.

Defines

- #define [OSCL_DISABLE_WARNING_RETURN_TYPE_NOT_UDT](#)

8.83.1 Detailed Description

This file defines a template class [OsclSharedPtr](#) which is a "smart pointer" to the parameterized type.

8.84 oscl_singleton.h File Reference

This file defines the OsclSingleton class. This class provides a container which used to give access to a set of process-level singleton objects. Each object is indexed by an integer ID, listed below. There can only be one instance of each object per process at a given time.

```
#include "oscl_base.h"  
#include "oscl_defalloc.h"
```

8.84.1 Detailed Description

This file defines the OsclSingleton class. This class provides a container which used to give access to a set of process-level singleton objects. Each object is indexed by an integer ID, listed below. There can only be one instance of each object per process at a given time. OsclSingleton is initialized in OsclBase::Init.

8.85 oscl_snprintf.h File Reference

Provides a portable implementation of snprintf.

```
#include "oscl_base.h"
#include "osclconfig_util.h"
```

Functions

- OSCL_IMPORT_REF int32 [oscl_snprintf](#) (char *str, uint32 count, const char *fmt,...)
- OSCL_IMPORT_REF int32 [oscl_snprintf](#) ([oscl_wchar](#) *str, uint32 count, const [oscl_wchar](#) *fmt,...)
- OSCL_IMPORT_REF int32 [oscl_vsnprintf](#) (char *str, uint32 count, const char *fmt, va_list args)
- OSCL_IMPORT_REF int32 [oscl_vsnprintf](#) ([oscl_wchar](#) *str, uint32 count, const [oscl_wchar](#) *fmt, va_list args)

8.85.1 Detailed Description

Provides a portable implementation of snprintf.

8.86 oscl_socket.h File Reference

The file [oscl_socket.h](#) defines the OSCL Socket APIs.

```
#include "osclconfig_io.h"
#include "oscl_socket_types.h"
#include "oscl_heapbase.h"
#include "oscl_defalloc.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
```

Data Structures

- class [OsclSocketServ](#)
- class [OsclUDPSocket](#)
- class [OsclTCPSocket](#)

8.86.1 Detailed Description

The file [oscl_socket.h](#) defines the OSCL Socket APIs.

8.87 oscl_socket_accept.h File Reference

```
#include "oscl_socket_imp.h"
#include "oscl_socket_serv_imp.h"
#include "osclconfig_io.h"
#include "oscl_socket_tuneables.h"
#include "oscl_socket_types.h"
#include "oscl_scheduler_ao.h"
#include "oscl_socket_request.h"
#include "pvlogger.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
```

Data Structures

- class [OsclAcceptMethod](#)
- class [OsclAcceptRequest](#)

8.88 oscl_socket_bind.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclBindMethod](#)
- class [OsclBindRequest](#)

8.89 oscl_socket_connect.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclConnectMethod](#)
- class [OsclConnectRequest](#)

8.90 oscl_socket_imp.h File Reference

```
#include "oscl_socket_tuneables.h"
```

8.91 oscl_socket_imp_base.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_socket_request.h"
#include "oscl_defalloc.h"
#include "oscl_mutex.h"
#include "oscl_socket_stats.h"
#include "oscl_base.h"
```

Data Structures

- class [OsclSocketIBase](#)

8.92 oscl_socket_imp_pv.h File Reference

```
#include "oscl_socket_imp_base.h"
```

Data Structures

- class [OsclSocketI](#)

Defines

- #define [PVSOCK_ERR_BAD_PARAM](#) (-1)
- #define [PVSOCK_ERR SOCK_NOT_OPEN](#) (-2)
- #define [PVSOCK_ERR SOCK_NO_SERV](#) (-3)
- #define [PVSOCK_ERR SERV_NOT_CONNECTED](#) (-4)
- #define [PVSOCK_ERR SOCK_NOT_CONNECTED](#) (-5)
- #define [PVSOCK_ERR NOT_IMPLEMENTED](#) (-6)
- #define [PVSOCK_ERR NOT_SUPPORTED](#) (-7)

8.92.1 Define Documentation

8.92.1.1 #define PVSOCK_ERR_BAD_PARAM (-1)

Socket implementation for PV socket server some error codes for request completion these are negative so they won't conflict with errors from the OS socket layer.

8.92.1.2 #define PVSOCK_ERR_NOT_IMPLEMENTED (-6)

8.92.1.3 #define PVSOCK_ERR_NOT_SUPPORTED (-7)

8.92.1.4 #define PVSOCK_ERR_SERV_NOT_CONNECTED (-4)

8.92.1.5 #define PVSOCK_ERR SOCK_NO_SERV (-3)

8.92.1.6 #define PVSOCK_ERR SOCK_NOT_CONNECTED (-5)

8.92.1.7 #define PVSOCK_ERR SOCK_NOT_OPEN (-2)

8.93 oscl_socket_listen.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclListenMethod](#)
- class [OsclListenRequest](#)

Defines

- #define [OSCL_SOCKET_LISTEN_H_INCLUDEDd](#)

8.93.1 Define Documentation

8.93.1.1 #define OSCL_SOCKET_LISTEN_H_INCLUDEDd

8.94 oscl_socket_method.h File Reference

```
#include "osclconfig_io.h"
#include "oscl_socket_types.h"
#include "oscl_scheduler_ao.h"
#include "oscl_socket_request.h"
#include "pvlogger.h"
#include "oscl_socket_tuneables.h"
#include "oscl_ip_socket.h"
#include "oscl_socket_imp.h"
```

Data Structures

- class [OsclSocketMethod](#)
- class [OsclSocketRequestAO](#)

Defines

- #define [MSEC_TO_MICROSEC](#) 1000

8.94.1 Define Documentation

8.94.1.1 #define MSEC_TO_MICROSEC 1000

8.95 oscl_socket_recv.h File Reference

```
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclRecvMethod](#)
- class [OsclRecvRequest](#)

8.96 oscl_socket_recv_from.h File Reference

```
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclRecvFromMethod](#)
- class [OsclRecvFromRequest](#)

8.97 oscl_socket_request.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_socket_tuneables.h"
```

Data Structures

- class [PVSockBufSend](#)
- class [PVSockBufRecv](#)
- class [SocketRequestParam](#)
- class [SendParam](#)
- class [SendToParam](#)
- class [RecvParam](#)
- class [RecvFromParam](#)
- class [BindParam](#)
- class [ListenParam](#)
- class [ConnectParam](#)
- class [AcceptParam](#)
- class [ShutdownParam](#)

8.98 oscl_socket_send.h File Reference

```
#include "oscl_socket_types.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclSendMethod](#)
- class [OsclSendRequest](#)

8.99 oscl_socket_send_to.h File Reference

```
#include "oscl_socket_types.h"  
#include "oscl_socket_imp.h"  
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclSendToMethod](#)
- class [OsclSendToRequest](#)

8.100 oscl_socket_serv_imp.h File Reference

```
#include "osclconfig_io.h"
#include "oscl_socket_tuneables.h"
```

8.101 oscl_socket_serv_imp_base.h File Reference

```
#include "oscl_base.h"
#include "oscl_socket_stats.h"
```

Data Structures

- class [OsclSocketServIBase](#)

8.102 oscl_socket_serv_imp_pv.h File Reference

```
#include "oscl_socket_serv_imp_base.h"
#include "oscl_base.h"
#include "oscl_socket_stats.h"
#include "oscl_socket_tuneables.h"
#include "oscl_defalloc.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_scheduler_ao.h"
```

Data Structures

- class [OsclSocketServI](#)

Defines

- #define [OSCL_READSET_FLAG](#) 0x04
- #define [OSCL_WRITESET_FLAG](#) 0x02
- #define [OSCL_EXCEPTSET_FLAG](#) 0x01

8.102.1 Define Documentation

8.102.1.1 #define OSCL_EXCEPTSET_FLAG 0x01

8.102.1.2 #define OSCL_READSET_FLAG 0x04

A bitmask for socket select operations

8.102.1.3 #define OSCL_WRITESET_FLAG 0x02

8.103 oscl_socket_serv_imp_reqlist.h File Reference

```
#include "oscl_socket_tuneables.h"
#include "oscl_defalloc.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
```

Data Structures

- class [OsclSocketServRequestQElem](#)
- class [OsclSocketServRequestList](#)

8.104 oscl_socket_shutdown.h File Reference

```
#include "oscl_socket_types.h"  
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclShutdownMethod](#)
- class [OsclShutdownRequest](#)

8.105 oscl_socket_stats.h File Reference

```
#include "oscl_base.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_mutex.h"
#include "oscl_socket_tuneables.h"
```

Enumerations

- enum **TOsclSocketStatEvent** {
 EOscSocket_RequestAO_Success, EOscSocket_RequestAO_Canceled, EOscSocket_RequestAO_Error, EOscSocket_RequestAO_Timeout,
 EOscSocket_ServRequestIssued, EOscSocket_ServPoll, EOscSocket_OS, EOscSocket_Readable,
 EOscSocket_Writable, EOscSocket_Except, EOscSocket_DataRecv, EOscSocket_DataSent,
 EOscSocket_ServRequestComplete, EOscSocket_ServRequestCancelIssued, EOscSocketServ_LoopsockOk, EOscSocketServ_LoopsockError
 }
- enum **TOsclSocketServStatEvent** {
 EOscSocketServ_SelectNoActivity = 0, EOscSocketServ_SelectActivity, EOscSocketServ_SelectRescheduleAsap, EOscSocketServ_SelectReschedulePoll,
 EOscSocketServ_LastEvent }

8.105.1 Enumeration Type Documentation

8.105.1.1 enum TOsclSocketServStatEvent

Enumerator:

EOscSocketServ_SelectNoActivity
EOscSocketServ_SelectActivity
EOscSocketServ_SelectRescheduleAsap
EOscSocketServ_SelectReschedulePoll
EOscSocketServ_LastEvent

8.105.1.2 enum TOsclSocketStatEvent

Socket diagnostics.

Enumerator:

EOscSocket_RequestAO_Success
EOscSocket_RequestAO_Canceled
EOscSocket_RequestAO_Error
EOscSocket_RequestAO_Timeout

EOsclSocket_ServRequestIssued
EOsclSocket_ServPoll
EOsclSocket_OS
EOsclSocket_Readable
EOsclSocket_Writable
EOsclSocket_Except
EOsclSocket_DataRecv
EOsclSocket_DataSent
EOsclSocket_ServRequestComplete
EOsclSocket_ServRequestCancelIssued
EOsclSocketServ_LoopsockOk
EOsclSocketServ_LoopsockError

8.106 oscl_socket_tuneables.h File Reference

```
#include "osclconfig_io.h"
#include "osclconfig_proc.h"
```

Defines

- #define PV_OSCL_SOCKET_STATS_LOGGING 0
- #define PV_SOCKET_SERVER 1

8.106.1 Define Documentation

8.106.1.1 #define PV_OSCL_SOCKET_STATS_LOGGING 0

This file contains default definitions of all the the tuning parameters for the Oscl sockets.

If parameters are defined in [osclconfig_io.h](#), those definitions will take precedence over the ones in this file.

PV_SOCKET_REQUEST_AO_PRIORITY sets the priority of the socket request completion AOs.

Set this to 0 or 1 to enable/disable socket stats logging with "OsclSocketStats" node. This feature is fairly costly so should be off in production code.

8.106.1.2 #define PV_SOCKET_SERVER 1

Enable/disable the PV socket server here.

8.107 oscl_socket_types.h File Reference

```
#include "osclconfig_io.h"
#include "oscl_types.h"
#include "oscl_scheduler_types.h"
#include "oscl_namestring.h"
#include "oscl_stdstring.h"
```

Data Structures

- class OsclSocketTOS
- class OsclNetworkAddress
- class OsclIpMReq
- class OsclSocketObserver

Defines

- #define PVNETWORKADDRESS_LEN 50

Enumerations

- enum TPVSocketFxn {
 EPVSocketSend = 0, EPVSocketSendTo, EPVSocketRecv, EPVSocketRecvFrom,
 EPVSocketConnect, EPVSocketAccept, EPVSocketShutdown, EPVSocketBind,
 EPVSocketListen, EPVSocket_Last }
- enum TPVSocketEvent {
 EPVSocketSuccess, EPVSocketPending, EPVSocketTimeout, EPVSocketFailure,
 EPVSocketCancel, EPVSocketNotImplemented }
- enum TPVSocketShutdown { EPVSocketSendShutdown, EPVSocketRecvShutdown, EPVSocketBothShutdown }
- enum TPVSocketOptionName { EPVIMulticastTTL, EPVIPAddMembership, EPVIPTOS, EPV-SockReuseAddr }
- enum TPVSocketOptionLevel { EPVIPProtoIP, EPVIPProtoTCP, EPVSocket }

8.107.1 Define Documentation

8.107.1.1 #define PVNETWORKADDRESS_LEN 50

8.107.2 Enumeration Type Documentation

8.107.2.1 enum TPVSocketEvent

Return codes for asynchronous APIs

Enumerator:

EPVSocketSuccess

EPVSocketPending
EPVSocketTimeout
EPVSocketFailure
EPVSocketCancel
EPVSocketNotImplemented

8.107.2.2 enum TPVSocketFxn

Enumerator:

EPVSocketSend
EPVSocketSendTo
EPVSocketRecv
EPVSocketRecvFrom
EPVSocketConnect
EPVSocketAccept
EPVSocketShutdown
EPVSocketBind
EPVSocketListen
EPVSocket_Last

8.107.2.3 enum TPVSocketOptionLevel

Enumerator:

EPVIPProtoIP
EPVIPProtoTCP
EPVSocket

8.107.2.4 enum TPVSocketOptionName

Enumerator:

EPVIMulticastTTL
EPVIPAddMembership
EPVIPTOS
EPVSockReuseAddr

8.107.2.5 enum TPVSocketShutdown

Enumerator:

EPVSocketSendShutdown
EPVSocketRecvShutdown
EPVSocketBothShutdown

8.108 oscl_stdstring.h File Reference

This file provides standard string operations such as strlen, strcpy, etc. ANSI defines undefined behavior when the destination pointer is null for operations such as strcpy, strcat, etc. But, we chose to define one. In such cases, we return the destination as null.

```
#include "oscl_base.h"
```

Functions

- OSCL_IMPORT_REF uint32 `oscl_strlen` (const char *str)
- OSCL_IMPORT_REF uint32 `oscl_strlen` (const `oscl_wchar` *str)
- OSCL_IMPORT_REF char * `oscl_strncpy` (char *dest, const char *src, uint32 count)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strncpy` (`oscl_wchar` *dest, const `oscl_wchar` *src, uint32 count)
- OSCL_IMPORT_REF int32 `oscl_strcmp` (const char *str1, const char *str2)
- OSCL_IMPORT_REF int32 `oscl_strcmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2)
- OSCL_IMPORT_REF int32 `oscl_strncmp` (const char *str1, const char *str2, uint32 count)
- OSCL_IMPORT_REF int32 `oscl_strncmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2, uint32 count)
- OSCL_IMPORT_REF char * `oscl_strncat` (char *dest, const char *src, uint32 count)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strncat` (`oscl_wchar` *dest, const `oscl_wchar` *src, uint32 count)
- OSCL_IMPORT_REF const char * `oscl_strchr` (const char *str, int32 c)
- OSCL_IMPORT_REF char * `oscl_strchr` (char *str, int32 c)
- OSCL_IMPORT_REF const `oscl_wchar` * `oscl_strchr` (const `oscl_wchar` *str, int32 c)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strchr` (`oscl_wchar` *str, int32 c)
- OSCL_IMPORT_REF const char * `oscl strrchr` (const char *str, int32 c)
- OSCL_IMPORT_REF char * `oscl strrchr` (char *str, int32 c)
- OSCL_IMPORT_REF const `oscl_wchar` * `oscl strrchr` (const `oscl_wchar` *str, int32 c)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl strrchr` (`oscl_wchar` *str, int32 c)
- OSCL_IMPORT_REF char * `oscl_strset` (char *dest, char val, uint32 count)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl_strset` (`oscl_wchar` *dest, `oscl_wchar` val, uint32 count)
- OSCL_IMPORT_REF int32 `oscl_Clstrcmp` (const char *str1, const char *str2)
- OSCL_IMPORT_REF int32 `oscl_Clstrcmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2)
- OSCL_IMPORT_REF int32 `oscl_Clstrncmp` (const char *str1, const char *str2, uint32 count)
- OSCL_IMPORT_REF int32 `oscl_Clstrncmp` (const `oscl_wchar` *str1, const `oscl_wchar` *str2, uint32 count)
- OSCL_IMPORT_REF char `oscl_tolower` (const char car)
- OSCL_IMPORT_REF `oscl_wchar` `oscl_tolower` (const `oscl_wchar` car)
- OSCL_IMPORT_REF bool `oscl_isLetter` (const char car)
- OSCL_IMPORT_REF const char * `oscl strstr` (const char *str1, const char *str2)
- OSCL_IMPORT_REF char * `oscl strstr` (char *str1, const char *str2)
- OSCL_IMPORT_REF const `oscl_wchar` * `oscl strstr` (const `oscl_wchar` *str1, const `oscl_wchar` *str2)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl strstr` (`oscl_wchar` *str1, const `oscl_wchar` *str2)
- OSCL_IMPORT_REF char * `oscl_streat` (char *dest, const char *src)
- OSCL_IMPORT_REF `oscl_wchar` * `oscl_streat` (`oscl_wchar` *dest, const `oscl_wchar` *src)

8.108.1 Detailed Description

This file provides standard string operations such as strlen, strncpy, etc. ANSI defines undefined behavior when the destination pointer is null for operations such as strncpy, strncat, etc. But, we chose to define one. In such cases, we return the destination as null.

8.109 oscl_str_ptr_len.h File Reference

Defines a data structure for string containment/manipulations where the storage for the string is maintained externally.

```
#include "oscl_base.h"
#include "oscl_stdstring.h"
```

Data Structures

- struct [StrPtrLen](#)
This data structure encapsulates a set of functions used to perform.
- struct [WStrPtrLen](#)
This data structure encapsulates a set of functions used to perform.
- struct [StrCSumPtrLen](#)
same as [StrPtrLen](#), but includes checksum field and method to speed up querying

Typedefs

- typedef struct [StrPtrLen](#) [StrPtrLen](#)
This data structure encapsulates a set of functions used to perform.
- typedef struct [WStrPtrLen](#) [WStrPtrLen](#)
This data structure encapsulates a set of functions used to perform.
- typedef [StrCSumPtrLen](#) [StrCSumPtrLen](#)
same as [StrPtrLen](#), but includes checksum field and method to speed up querying
- typedef [WStrPtrLen](#) [OSCL_TStrPtrLen](#)

Variables

- const uint8 [OSCL_ASCII_CASE_MAGIC_BIT](#) = 0x20

8.109.1 Detailed Description

Defines a data structure for string containment/manipulations where the storage for the string is maintained externally.

8.110 oscl_string.h File Reference

Provides a standardized set of string containers that can be used in place of character arrays.

```
#include "oscl_base.h"
#include "oscl_mem.h"
```

Data Structures

- class [OSCL_String](#)
- class [OSCL_wString](#)

Enumerations

- enum [TOSCL_StringOp](#) { [EOSCL_StringOp_CompressASCII](#), [EOSCL_StringOp_UTF16ToUTF8](#) }
- enum [TOSCL_wStringOp](#) { [EOSCL_wStringOp_ExpandASCII](#), [EOSCL_wStringOp_UTF8ToUTF16](#) }

8.110.1 Detailed Description

Provides a standardized set of string containers that can be used in place of character arrays.

8.111 oscl_string_containers.h File Reference

Provides a standardized set of string containers that can be used in place of character arrays.

```
#include "oscl_string.h"
#include "oscl_base.h"
#include "oscl_mem.h"
#include "oscl_defalloc.h"
#include "oscl_refcounter.h"
#include "oscl_error.h"
#include "oscl_stdstring.h"
```

Data Structures

- class [OSCL_HeapString< Alloc >](#)
- class [OSCL_wHeapString< Alloc >](#)
- class [OSCL_HeapStringA](#)
- class [OSCL_wHeapStringA](#)
- class [OSCL_StackString< MaxBufSize >](#)
- class [OSCL_wStackString< MaxBufSize >](#)
- class [OSCL_FastString](#)
- class [OSCL_wFastString](#)

8.111.1 Detailed Description

Provides a standardized set of string containers that can be used in place of character arrays.

8.112 oscl_string_rep.h File Reference

Contains some internal implementation for string containers.

```
#include "oscl_defalloc.h"
```

Data Structures

- class [CHheapRep](#)
- class [CStackRep](#)
- class [CFastRep](#)

8.112.1 Detailed Description

Contains some internal implementation for string containers.

8.113 oscl_string_uri.h File Reference

Utilities to unescape URIs.

```
#include "oscl_base.h"  
#include "oscl_string.h"
```

Functions

- OSCL_IMPORT_REF bool [oscl_str_unescape_uri](#) (const char *str_buf_in, char *str_buf_out, uint32 max_out_buf_bytes, uint32 max_bytes, uint32 &out_buf_len)
unescape any of the special escape sequence in the uri string
- OSCL_IMPORT_REF bool [oscl_str_unescape_uri](#) (const [OSCL_String](#) &oscl_str_in, [OSCL_String](#) &oscl_str_out, uint32 &out_buf_len)
unescape any of the special escape sequence in the uri string

8.113.1 Detailed Description

Utilities to unescape URIs.

8.114 oscl_string_utf8.h File Reference

Utilities to validate and truncate UTF-8 encoded strings.

```
#include "oscl_base.h"
```

Functions

- OSCL_IMPORT_REF bool `oscl_str_is_valid_utf8` (const uint8 *str_buf, uint32 &num_valid_characters, uint32 max_bytes=0, uint32 max_char_2_valid=0, uint32 *num_byte_4_char=NULL)

Check if the input string contains any illegal UTF-8 character. The function scans the string and validate that each character is a valid utf-8. It stops at the first NULL character, invalid character or the max_byte value. The string is valid if and only if every character is a valid utf-8 character and the scanning stopped on a character boundary.

- OSCL_IMPORT_REF int32 `oscl_str_truncate_utf8` (uint8 *str_buf, uint32 max_char, uint32 max_bytes=0)

Truncates the UTF-8 string upto the required size.

8.114.1 Detailed Description

Utilities to validate and truncate UTF-8 encoded strings.

8.115 oscl_string_utils.h File Reference

Utilities to parse and convert strings.

```
#include "oscl_base.h"
```

Defines

- #define `oscl_isdigit(c)` ((c) >= '0' && (c) <= '9')

Functions

- OSCL_IMPORT_REF const char * `skip_whitespace` (const char *ptr)
- OSCL_IMPORT_REF char * `skip_whitespace` (char *ptr)
- OSCL_IMPORT_REF const char * `skip_whitespace` (const char *start, const char *end)
- OSCL_IMPORT_REF const char * `skip_to_whitespace` (const char *start, const char *end)
- OSCL_IMPORT_REF const char * `skip_to_line_term` (const char *start_ptr, const char *end_ptr)
- OSCL_IMPORT_REF const char * `skip_whitespace_and_line_term` (const char *start, const char *end)
- OSCL_IMPORT_REF int `extract_string` (const char *in_ptr, char *outstring, int maxsize)
- OSCL_IMPORT_REF int `extract_string` (const char *start, const char *end, char *outstring, int maxsize)
- OSCL_IMPORT_REF bool `PV_atoi` (const char *buf, const char new_format, uint32 &value)
- OSCL_IMPORT_REF bool `PV_atoi` (const char *buf, const char new_format, int length, uint32 &value)
- OSCL_IMPORT_REF bool `PV_atoi` (const char *buf, const char new_format, int length, `uint64` &value)
- OSCL_IMPORT_REF bool `PV_atof` (const char *buf, `OsclFloat` &value)
- OSCL_IMPORT_REF bool `PV_atof` (const char *buf, int length, `OsclFloat` &value)
- OSCL_IMPORT_REF int `oscl_abs` (int aVal)

8.115.1 Detailed Description

Utilities to parse and convert strings.

8.116 oscl_string_xml.h File Reference

Utilities to escape special characters in XML strings.

```
#include "oscl_base.h"
```

Functions

- OSCL_IMPORT_REF bool [oscl_str_need_escape_xml](#) (const char *str_buf, uint32 &num_escape_bytes, uint32 max_bytes=0)

Check if the input string contains any special ASCII character like &, <, >, ', ". The function scans the string and check if each character is a special character. It stops at the first NULL character (if max_bytes = 0), or the max_byte value.

- OSCL_IMPORT_REF int32 [oscl_str_escape_xml](#) (const char *str_buf_in, char *str_buf_out, uint32 max_out_buf_bytes, uint32 max_bytes=0, uint32 *num_bytes_written=NULL)

Escape any of the following special characters in the string Special ASCII characters: &, <, >, ', ".

8.116.1 Detailed Description

Utilities to escape special characters in XML strings.

8.117 oscl_tagtree.h File Reference

The file [oscl_tagtree.h](#) ...

```
#include "oscl_base.h"
#include "oscl_map.h"
#include "oscl_tree.h"
#include "osclconfig_compiler_warnings.h"
#include "oscl_mem_basic_functions.h"
#include "oscl_assert.h"
#include "oscl_opaque_type.h"
#include "oscl_defalloc.h"
```

Data Structures

- struct [Oscl_Tag_Base](#)
- struct [Oscl_Tag< Alloc >](#)
- class [Oscl_TagTree< T, Alloc >](#)
- struct [Oscl_TagTree< T, Alloc >::Node](#)
- struct [Oscl_TagTree< T, Alloc >::iterator](#)
- struct [Oscl_TagTree< T, Alloc >::const_iterator](#)

Defines

- #define [OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE](#)

8.117.1 Detailed Description

The file [oscl_tagtree.h](#) ...

8.118 oscl_tcp_socket.h File Reference

```
#include "oscl_ip_socket.h"
#include "oscl_defalloc.h"
#include "oscl_vector.h"
#include "oscl_mem.h"
#include "oscl_socket_listen.h"
#include "oscl_socket_types.h"
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
```

Data Structures

- class [OsclTCPSocketI](#)

8.119 oscl_thread.h File Reference

```
#include "osclconfig_proc.h"
#include "oscl_procstatus.h"
#include "oscl_base.h"
```

Data Structures

- class [OsclThread](#)

Typedefs

- typedef [TOsclThreadFuncRet\(OSCL_THREAD DECL * TOsclThreadFuncPtr \)\(TOsclThreadFuncArg\)](#)

Enumerations

- enum [OsclThread_State](#) { [Start_on_creation](#), [Suspend_on_creation](#) }
- enum [OsclThreadPriority](#) {
 [ThreadPriorityLowest](#), [ThreadPriorityLow](#), [ThreadPriorityBelowNormal](#), [ThreadPriorityNormal](#),
 [ThreadPriorityAboveNormal](#), [ThreadPriorityHighest](#), [ThreadPriorityTimeCritical](#) }
- enum [TOsclThreadTerminate](#) { [EOsclThreadTerminate_Join](#), [EOsclThreadTerminate_Kill](#),
[EOsclThreadTerminate_NOP](#) }

8.119.1 Detailed Description

This file provides THREAD implementation that can be ported to three OS LINUX, SYMBIAN, WIN32

8.119.2 Typedef Documentation

8.119.2.1 [typedef TOsclThreadFuncRet\(OSCL_THREAD DECL * TOsclThreadFuncPtr\)\(TOsclThreadFuncArg\)](#)

8.119.3 Enumeration Type Documentation

8.119.3.1 enum [OsclThread_State](#)

Enumerator:

Start_on_creation

Suspend_on_creation

8.119.3.2 enum OsclThreadPriority

Enumerator:

ThreadPriorityLowest
ThreadPriorityLow
ThreadPriorityBelowNormal
ThreadPriorityNormal
ThreadPriorityAboveNormal
ThreadPriorityHighest
ThreadPriorityTimeCritical

8.119.3.3 enum TOsclThreadTerminate

Enumerator:

EOsclThreadTerminate_Join
EOsclThreadTerminate_Kill
EOsclThreadTerminate_NOP

8.120 oscl_tickcount.h File Reference

Defines a data structure for string containment/manipulations where the storage for the string is maintained externally.

```
#include "oscl_base.h"
#include "oscl_tickcount.inl"
#include "osclconfig.h"
#include "oscl_singleton.h"
#include "osclconfig_time.h"
```

Data Structures

- class [OsclTickCount](#)

Defines

- #define [OSCLTICKCOUNT_MAX_TICKS](#) 0xffffffff

8.120.1 Detailed Description

Defines a data structure for string containment/manipulations where the storage for the string is maintained externally.

8.121 oscl_time.h File Reference

The file `oscl_time.h` defines two classes `NTPTime` and `TimeValue` for getting, manipulating, and formatting time values. The `TimeValue` class is based on the native system time format while `NTPTime` is used for the standard Network Time Protocol format.

```
#include "oscl_base.h"
#include "osclconfig_time.h"
#include "oscl_int64_utils.h"
#include "oscl_int64_utils.h"
#include "oscl_assert.h"
#include "oscl_stdstring.h"
#include "oscl_mem_basic_functions.h"
```

Data Structures

- class `NTPTime`

The `NTPTime` class represents a time value as the number of seconds since 0h (UTC) Jan. 1, 1900.

- class `TimeValue`

The `TimeValue` class represents a time value in a format native to the system.

Typedefs

- `typedef char CtimeStrBuf [CTIME_BUFFER_SIZE]`
- `typedef char PV8601timeStrBuf [PV8601TIME_BUFFER_SIZE]`
- `typedef char ISO8601timeStrBuf [ISO8601TIME_BUFFER_SIZE]`

Enumerations

- enum `TimeUnits` { `SECONDS` = 0, `MILLISECONDS` = 1, `MICROSECONDS` = 2 }

The `TimeUnits` enum can be used when constructing a `TimeValue` class.

Functions

- `OSCL_IMPORT_REF void PV8601ToRFC822 (PV8601timeStrBuf pv8601_buffer, CtimeStrBuf ctime_buffer)`
- `OSCL_IMPORT_REF void ISO8601ToRFC822 (ISO8601timeStrBuf iso8601_buffer, CtimeStrBuf ctime_buffer)`
- `OSCL_IMPORT_REF void RFC822ToPV8601 (CtimeStrBuf ctime_buffer, PV8601timeStrBuf)`
- `OSCL_COND_IMPORT_REF TimeValue operator- (const TimeValue &a, const TimeValue &b)`
- `OSCL_COND_IMPORT_REF TimeValue operator+ (const TimeValue &a, const int32 bSeconds)`
- `OSCL_COND_IMPORT_REF TimeValue operator+ (const int32 aSeconds, const TimeValue &b)`
- `OSCL_COND_IMPORT_REF TimeValue operator- (const TimeValue &a, const int32 bSeconds)`
- `OSCL_COND_IMPORT_REF TimeValue operator- (const int32 aSeconds, const TimeValue &b)`

Variables

- const int `CTIME_BUFFER_SIZE` = 26
- const int `PV8601TIME_BUFFER_SIZE` = 21
- const int `ISO8601TIME_BUFFER_SIZE` = 21
- const long `USEC_PER_SEC` = 1000000
- const long `MSEC_PER_SEC` = 1000
- const uint32 `unix_ntp_offset` = 2208988800U

8.121.1 Detailed Description

The file `oscl_time.h` defines two classes `NTPTime` and `TimeValue` for getting, manipulating, and formatting time values. The `TimeValue` class is based on the native system time format while `NTPTime` is used for the standard Network Time Protocol format.

8.122 oscl_timer.h File Reference

```
#include "oscl_base.h"
#include "osclconfig_util.h"
#include "oscl_vector.h"
#include "oscl_tickcount.h"
#include "oscl_rand.h"
#include "oscl_scheduler_ao.h"
```

Data Structures

- class [OsclTimerObserver](#)
- class [CallbackTimerObserver](#)
- class [CallbackTimer< Alloc >](#)
- class [OsclTimer< Alloc >](#)
- struct [OsclTimer< Alloc >::_TimerEntry](#)

8.123 oscl_tls.h File Reference

```
#include "oscl_base.h"
#include "oscl_defalloc.h"
```

Data Structures

- class [TLSStorageOps](#)
- class [OsclTLSRegistry](#)
- class [OsclTLS< T, ID, Registry >](#)

Defines

- #define [OSCL_TLS_BASE_SLOTS](#) OSCL_TLS_ID_BASE_LAST +1
- #define [OSCL_TLS_MAX_SLOTS](#) (OSCL_TLS_BASE_SLOTS + OSCL_TLS_EXTERNAL_SLOTS)

Typedefs

- typedef [OsclAny](#) TOsclTlsKey

Variables

- const uint32 [OSCL_TLS_ID_MAGICNUM](#) = 0
- const uint32 [OSCL_TLS_ID_ERRORHOOK](#) = 1
- const uint32 [OSCL_TLS_ID_PVLOGGER](#) = 2
- const uint32 [OSCL_TLS_ID_TEST](#) = 3
- const uint32 [OSCL_TLS_ID_PVSCHEDULER](#) = 4
- const uint32 [OSCL_TLS_ID_PVERRORTRAP](#) = 5
- const uint32 [OSCL_TLS_ID_SDPMEDIAPARSER](#) = 6
- const uint32 [OSCL_TLS_ID_PAYLOADPARSER](#) = 7
- const uint32 [OSCL_TLS_ID_PVMFRECOGNIZER](#) = 8
- const uint32 [OSCL_TLS_ID_WMDRM](#) = 9
- const uint32 [OSCL_TLS_ID_OSCLREGISTRY](#) = 10
- const uint32 [OSCL_TLS_ID_SQLITE3](#) = 11
- const uint32 [OSCL_TLS_ID_BASE_LAST](#) = 11

8.124 oscl_tree.h File Reference

The file `oscl_tree.h` defines the template class `Oscl_Rb_Tree` which has a very similar API as the STL Tree class. It is an implementation of a Red-Black Tree for use by the `Oscl_Map` class. Memory allocation is abstracted through the use of an allocator template parameter.

```
#include "oscl_defalloc.h"
#include "oscl_base.h"
#include "osclconfig_compiler_warnings.h"
```

Data Structures

- struct `Oscl_Pair< T1, T2 >`
- struct `Oscl_Rb_Tree_Node_Base`
- struct `Oscl_Rb_Tree_Node< Value >`
- struct `Oscl_Rb_Tree_Iterator< Value >`
- struct `Oscl_Rb_Tree_Const_Iterator< Value >`
- class `Oscl_Rb_Tree_Base`
- class `Oscl_Rb_Tree< Key, Value, KeyOfValue, Compare, Alloc >`

Defines

- #define `OSCL_DISABLE_WARNING_TRUNCATE_DEBUG_MESSAGE`

8.124.1 Detailed Description

The file `oscl_tree.h` defines the template class `Oscl_Rb_Tree` which has a very similar API as the STL Tree class. It is an implementation of a Red-Black Tree for use by the `Oscl_Map` class. Memory allocation is abstracted through the use of an allocator template parameter.

8.125 oscl_types.h File Reference

This file contains basic type definitions for common use across platforms.

```
#include "osclconfig.h"
```

Data Structures

- struct [OsclMemoryFragment](#)

Typedefs

- typedef int [c_bool](#)

The c_bool type is mapped to an integer to provide a bool type for C interfaces.

- typedef void [OsclAny](#)

The OsclAny is meant to be used the context of a generic pointer (i.e., no specific type).

- typedef char [mbchar](#)

mbchar is multi-byte char (e.g., UTF-8) with null termination.

- typedef unsigned int [uint](#)

The uint type is a convenient abbreviation for unsigned int.

- typedef uint8 [octet](#)

The octet type is meant to be used for referring to a byte or collection bytes without suggesting anything about the underlying meaning of the bytes.

- typedef float [OsclFloat](#)

The Float type defined as OsclFloat.

- typedef size_t [OsclSizeT](#)

- typedef OSCL_NATIVE_INT64_TYPE [int64](#)

- typedef OSCL_NATIVE_UINT64_TYPE [uint64](#)

- typedef OSCL_NATIVE_WCHAR_TYPE [oscl_wchar](#)

- typedef [oscl_wchar OSCL_TCHAR](#)

define OSCL_TCHAR

8.125.1 Detailed Description

This file contains basic type definitions for common use across platforms.

8.126 oscl_udp_socket.h File Reference

```
#include "oscl_ip_socket.h"
#include "oscl_defalloc.h"
#include "oscl_socket_recv_from.h"
#include "oscl_socket_serv_imp.h"
#include "oscl_socket_imp.h"
#include "oscl_socket_method.h"
#include "oscl_socket_types.h"
#include "oscl_socket_bind.h"
```

Data Structures

- class [OsclUDPSocketI](#)

8.127 oscl_utf8conv.h File Reference

Utilities to convert unicode to utf8 and vice versa.

```
#include "oscl_base.h"
```

Defines

- #define MAX_NUMBER_OF_BYTE_PER_UTF8 3

Functions

- OSCL_IMPORT_REF int32 **oscl_UTF8ToUnicode** (const char *input, int32 inLength, **oscl_wchar** *output, int32 outLength)
Convert UTF8 byte sequence to Unicode UTF-16 string.
- OSCL_IMPORT_REF int32 **oscl_UnicodeToUTF8** (const **oscl_wchar** *input, int32 inLength, char *output, int32 outLength)
Convert UTF-16 Unicode string to UTF8 byte sequence.

8.127.1 Detailed Description

Utilities to convert unicode to utf8 and vice versa.

8.128 oscl_uuid.h File Reference

This file defines the OSCL UUID structure used for unique identifiers as well as the short (32-bit) identifiers OsclUid32.

```
#include "oscl_base_macros.h"
#include "oscl_mem_basic_functions.h"
```

Data Structures

- struct [OsclUuid](#)

Defines

- #define [EMPTY_UUID](#) PVUuid(0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0)
- #define [BYTES_IN_UUID_ARRAY](#) 8

Typedefs

- typedef uint32 [OsclUid32](#)

8.128.1 Detailed Description

This file defines the OSCL UUID structure used for unique identifiers as well as the short (32-bit) identifiers OsclUid32.

8.128.2 Define Documentation

8.128.2.1 #define BYTES_IN_UUID_ARRAY 8

8.128.2.2 #define EMPTY_UUID PVUuid(0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0)

8.128.3 Typedef Documentation

8.128.3.1 typedef uint32 OsclUid32

8.129 oscl_uuid_utils.h File Reference

```
#include "oscl_string_utils.h"
#include "oscl_stdstring.h"
```

Variables

- const char **PV_CHAR_CLOSE_BRACKET** = ')
- const char **PV_CHAR_COMMA** = ','

8.129.1 Detailed Description

8.129.2 Variable Documentation

8.129.2.1 const char PV_CHAR_CLOSE_BRACKET = ')

8.129.2.2 const char PV_CHAR_COMMA = ','

8.130 oscl_vector.h File Reference

The file [oscl_vector.h](#) defines the template class [Oscl_Vector](#) which has a very similar API as the STL Vector class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

```
#include "oscl_base.h"
#include "oscl_mem_basic_functions.h"
#include "oscl_assert.h"
#include "oscl_opaque_type.h"
#include "oscl_defalloc.h"
```

Data Structures

- class [Oscl_Vector_Base](#)
- class [Oscl_Vector< T, Alloc >](#)

8.130.1 Detailed Description

The file [oscl_vector.h](#) defines the template class [Oscl_Vector](#) which has a very similar API as the STL Vector class (it basically provides a subset of the STL functionality). Memory allocation is abstracted through the use of an allocator template parameter.

8.131 osclconfig.h File Reference

This file contains configuration information for the linux platform.

```
#include <dirent.h>
#include <dlfcn.h>
#include <fcntl.h>
#include <sys/types.h>
#include <sys/stat.h>
#include "osclconfig_limits_typedefs.h"
#include "osclconfig_unix_android.h"
#include <stdlib.h>
#include <stdarg.h>
#include <stdio.h>
#include <string.h>
#include <unistd.h>
#include <pthread.h>
#include <ctype.h>
#include <math.h>
#include "osclconfig_ix86.h"
#include "osclconfig_check.h"
```

Defines

- #define OSCL_HAS_ANDROID_SUPPORT 1
- #define OSCL_HAS_ANDROID_FILE_IO_SUPPORT 1
- #define OSCL_EXPORT_REF __attribute__ ((visibility("default")))
- #define OSCL_IMPORT_REF __attribute__ ((visibility("default"))))
- #define OSCL_RELEASE_BUILD 0
- #define OSCL_UNSIGNED_CONST(x) x##u
- #define OSCL_NATIVE_UINT64_TYPE u_int64_t
- #define OSCL_TEMPLATED_DESTRUCTOR_CALL(type, simple_type) ~type ()
- #define __TFS__ <>
- #define OSCL_HAS_PRAGMA_PACK 0
- #define OSCL_HAS_PACKED_STRUCT 1
- #define OSCL_PACKED_VAR(x) x __attribute__((packed))
- #define OSCL_PACKED_STRUCT_BEGIN
- #define OSCL_PACKED_STRUCT_END __attribute__((packed))
- #define OSCL_ASSERT_ALWAYS 0

8.131.1 Detailed Description

This file contains configuration information for the linux platform.

8.131.2 Define Documentation

- 8.131.2.1 `#define __TFS__ <>`
- 8.131.2.2 `#define OSCL_ASSERT_ALWAYS 0`
- 8.131.2.3 `#define OSCL_EXPORT_REF __attribute__ ((visibility("default")))`
- 8.131.2.4 `#define OSCL_HAS_ANDROID_FILE_IO_SUPPORT 1`
- 8.131.2.5 `#define OSCL_HAS_ANDROID_SUPPORT 1`
- 8.131.2.6 `#define OSCL_HAS_PACKED_STRUCT 1`
- 8.131.2.7 `#define OSCL_HAS_PRAGMA_PACK 0`
- 8.131.2.8 `#define OSCL_IMPORT_REF __attribute__ ((visibility("default")))`
- 8.131.2.9 `#define OSCL_NATIVE_UINT64_TYPE u_int64_t`
- 8.131.2.10 `#define OSCL_PACKED_STRUCT_BEGIN`
- 8.131.2.11 `#define OSCL_PACKED_STRUCT_END __attribute__((packed))`
- 8.131.2.12 `#define OSCL_PACKED_VAR(x) x __attribute__((packed))`
- 8.131.2.13 `#define OSCL_RELEASE_BUILD 0`
- 8.131.2.14 `#define OSCL_TEMPLATED_DESTRUCTOR_CALL(type, simple_type) ~type()`
- 8.131.2.15 `#define OSCL_UNSIGNED_CONST(x) x##u`

8.132 osclconfig_ansi_memory.h File Reference

This file contains common typedefs based on the ANSI C limits.h header.

```
#include <memory.h>
```

Defines

- #define OSCL_HAS_ANSI_MEMORY_FUNCS 1

Typedefs

- typedef size_t oscl_memsize_t

8.132.1 Detailed Description

This file contains common typedefs based on the ANSI C limits.h header. This header file should work for any ANSI C compiler to determine the proper native C types to use for OSCL integer types.

8.132.2 Define Documentation

8.132.2.1 #define OSCL_HAS_ANSI_MEMORY_FUNCS 1

8.132.3 Typedef Documentation

8.132.3.1 typedef size_t oscl_memsize_t

8.133 osclconfig_check.h File Reference

Typedefs

- `typedef int8 __int8__check__`
- `typedef uint8 __uint8__check__`
- `typedef int16 __int16__check__`
- `typedef uint16 __uint16__check__`
- `typedef int32 __int32__check__`
- `typedef uint32 __uint32__check__`

8.134 osclconfig_compiler_warnings.h File Reference

This file contains the ability to turn off/on compiler warnings.

Defines

- #define OSCL_FUNCTION_PTR(x) (&x)

8.134.1 Detailed Description

This file contains the ability to turn off/on compiler warnings.

8.134.2 Define Documentation

8.134.2.1 #define OSCL_FUNCTION_PTR(x) (&x)

8.135 osclconfig_error.h File Reference

This file contains the common typedefs and header files needed to compile osclerror.

```
#include "osclconfig.h"
#include <dirent.h>
#include <dlfcn.h>
#include <fcntl.h>
#include <sys/types.h>
#include <sys/stat.h>
#include "osclconfig_limits_typedefs.h"
#include "osclconfig_unix_android.h"
#include "osclconfig_ix86.h"
#include "osclconfig_check.h"
#include <setjmp.h>
#include <errno.h>
#include "osclconfig_error_check.h"
```

Defines

- #define OSCL_HAS_EXCEPTIONS 1
- #define OSCL_HAS_ERRNO_H 1
- #define OSCL_HAS_SYMBIAN_ERRORTRAP 0
- #define OSCL_HAS_SETJMP_H 1

8.135.1 Detailed Description

This file contains the common typedefs and header files needed to compile osclerror.

8.135.2 Define Documentation

8.135.2.1 #define OSCL_HAS_ERRNO_H 1

8.135.2.2 #define OSCL_HAS_EXCEPTIONS 1

8.135.2.3 #define OSCL_HAS_SETJMP_H 1

8.135.2.4 #define OSCL_HAS_SYMBIAN_ERRORTRAP 0

8.136 osclconfig_error_check.h File Reference

8.137 osclconfig_global_new_delete.h File Reference

Functions

- void * [operator new](#) (size_t)
- void [operator delete](#) (void *)

8.138 osclconfig_global_placement_new.h File Reference

Functions

- void * [operator new](#) (size_t, void *ptr)

8.138.1 Function Documentation

8.138.1.1 void* operator new (size_t, void *ptr) [inline]

8.139 osclconfig_io.h File Reference

This file contains common typedefs based on the ANSI C limits.h header.

```
#include "osclconfig.h"
#include <stdio.h>
#include <stdlib.h>
#include <stdarg.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <arpa/inet.h>
#include <fcntl.h>
#include <signal.h>
#include <netdb.h>
#include <sys/mman.h>
#include <sys/types.h>
#include <errno.h>
#include <sys/vfs.h>
#include <dirent.h>
#include "osclconfig_io_check.h"
```

Defines

- #define OSCL_HAS_GLOB 0
- #define OSCL_HAS_ANSI_FILE_IO_SUPPORT 1
- #define OSCL_HAS_ANSI_64BIT_FILE_IO_SUPPORT 0
- #define OSCL_HAS_MSWIN_FILE_IO_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_COMPATIBLE_IO_FUNCTION 0
- #define OSCL_HAS_NATIVE_FILE_CACHE_ENABLE 1
- #define OSCL_FILE_BUFFER_MAX_SIZE 32768
- #define OSCL_HAS_PV_FILE_CACHE 0
- #define OSCL_HAS_LARGE_FILE_SUPPORT 1
- #define OSCL_HAS_SYMBIAN_SOCKET_SERVER 0
- #define OSCL_HAS_SYMBIAN_DNS_SERVER 0
- #define OSCL_HAS_BERKELEY_SOCKETS 1
- #define OSCL_HAS_SOCKET_SUPPORT 1
- #define OsclValidInetAddr(addr) (inet_addr(addr)!=INADDR_NONE)
- #define OsclMakeSockAddr(sockaddr, port, addrstr, ok)
- #define OsclUnMakeSockAddr(sockaddr, addrstr) addrstr=inet_ntoa(sockaddr.sin_addr);
- #define OsclMakeInAddr(in_addr, addrstr, ok)
- #define OsclUnMakeInAddr(in_addr, addrstr) addrstr=inet_ntoa(in_addr);
- #define OsclSetRecvBufferSize(s, val, ok, err)
- #define OsclBind(s, addr, ok, err)
- #define OsclSetSockOpt(s, optLevel, optName, optVal, optLen, ok, err)

- #define `OsclJoin`(s, addr, ok, err)
- #define `OsclListen`(s, size, ok, err)
- #define `OsclAccept`(s, accept_s, ok, err, wouldblock)
- #define `OsclSetNonBlocking`(s, ok, err)
- #define `OsclShutdown`(s, how, ok, err)
- #define `OsclSocket`(s, fam, type, prot, ok, err)
- #define `OsclSendTo`(s, buf, len, addr, ok, err, nbytes, wouldblock)
- #define `OsclSend`(s, buf, len, ok, err, nbytes, wouldblock)
- #define `OsclCloseSocket`(s, ok, err)
- #define `OsclConnect`(s, addr, ok, err, wouldblock)
- #define `OsclGetPeerName`(s, name, namelen, ok, err)
- #define `OsclGetAsyncSockErr`(s, ok, err)
- #define `OsclPipe`(x) pipe(x)
- #define `OsclReadFD`(fd, buf, cnt) read(fd,buf,cnt)
- #define `OsclWriteFD`(fd, buf, cnt) write(fd,buf,cnt)
- #define `OsclConnectComplete`(s, wset, eset, success, fail, ok, err)
- #define `OsclRecv`(s, buf, len, ok, err, nbytes, wouldblock)
- #define `OsclRecvFrom`(s, buf, len, paddr, paddrlen, ok, err, nbytes, wouldblock)
- #define `OsclSocketSelect`(nfds, rd, wr, ex, timeout, ok, err, nhandles)
- #define `OsclSocketStartup`(ok)
- #define `OsclSocketCleanup`(ok)
- #define `OsclGethostbyname`(name, hostent, ok, err)
- #define `OsclGetDottedAddr`(hostent, dottedaddr, ok)
- #define `OsclGetDottedAddrVector`(hostent, dottedaddr, dottedaddrvect, ok)
- #define `OSCL_SD_RECEIVE` SHUT_RD
- #define `OSCL_SD_SEND` SHUT_WR
- #define `OSCL_SD_BOTH` SHUT_RDWR
- #define `OSCL_AF_INET` AF_INET
- #define `OSCL SOCK_STREAM` SOCK_STREAM
- #define `OSCL SOCK_DGRAM` SOCK_DGRAM
- #define `OSCL IPPROTO_IP` IPPROTO_IP
- #define `OSCL IPPROTO_TCP` IPPROTO_TCP
- #define `OSCL IPPROTO_UDP` IPPROTO_UDP
- #define `OSCL SOL_SOCKET` SOL_SOCKET
- #define `OSCL SOL_IP` IPPROTO_IP
- #define `OSCL SOL_TCP` IPPROTO_TCP
- #define `OSCL SOL_UDP` IPPROTO_UDP
- #define `OSCL_SOCKOPT_IP_MULTICAST_TTL` IP_MULTICAST_TTL
- #define `OSCL_SOCKOPT_IP_ADDMEMBERSHIP` IP_ADD_MEMBERSHIP
- #define `OSCL_SOCKOPT_IP_TOS` IP_TOS
- #define `OSCL_SOCKOPT_SOL_REUSEADDR` SO_REUSEADDR
- #define `MAX_TOSCLFILEOFFSET_VALUE` 0x7FFFFFFFFFFFFFFFLL;

Typedefs

- typedef int `TOsclSocket`
- typedef struct sockaddr_in `TOsclSockAddr`
- typedef socklen_t `TOsclSockAddrLen`
- typedef struct ip_mreq `TIpMReq`
- typedef struct hostent `TOsclHostent`
- typedef off64_t `TOsclFileOffset`

8.139.1 Detailed Description

This file contains common typedefs based on the ANSI C limits.h header. This header file should work for any ANSI C compiler to determine the proper native C types to use for OSCL integer types.

8.139.2 Define Documentation

```
8.139.2.1 #define MAX_TOSCLFILEOFFSET_VALUE 0x7FFFFFFFFFFFFFLL;  
8.139.2.2 #define OSCL_AF_INET AF_INET  
8.139.2.3 #define OSCL_FILE_BUFFER_MAX_SIZE 32768  
8.139.2.4 #define OSCL_HAS_ANSI_64BIT_FILE_IO_SUPPORT 0  
8.139.2.5 #define OSCL_HAS_ANSI_FILE_IO_SUPPORT 1  
8.139.2.6 #define OSCL_HAS_BERKELEY_SOCKETS 1  
8.139.2.7 #define OSCL_HAS_GLOB 0  
8.139.2.8 #define OSCL_HAS_LARGE_FILE_SUPPORT 1  
8.139.2.9 #define OSCL_HAS_MSWIN_FILE_IO_SUPPORT 0  
8.139.2.10 #define OSCL_HAS_NATIVE_FILE_CACHE_ENABLE 1  
8.139.2.11 #define OSCL_HAS_PV_FILE_CACHE 0  
8.139.2.12 #define OSCL_HAS_SOCKET_SUPPORT 1  
8.139.2.13 #define OSCL_HAS_SYMBIAN_COMPATIBLE_IO_FUNCTION 0  
8.139.2.14 #define OSCL_HAS_SYMBIAN_DNS_SERVER 0  
8.139.2.15 #define OSCL_HAS_SYMBIAN_SOCKET_SERVER 0  
8.139.2.16 #define OSCL IPPROTO_IP IPPROTO_IP  
8.139.2.17 #define OSCL IPPROTO_TCP IPPROTO_TCP  
8.139.2.18 #define OSCL IPPROTO_UDP IPPROTO_UDP  
8.139.2.19 #define OSCL_SD_BOTH SHUT_RDWR  
8.139.2.20 #define OSCL_SD_RECEIVE SHUT_RD  
8.139.2.21 #define OSCL_SD_SEND SHUT_WR  
8.139.2.22 #define OSCL_SOCK_DGRAM SOCK_DGRAM  
8.139.2.23 #define OSCL_SOCK_STREAM SOCK_STREAM  
8.139.2.24 #define OSCL_SOCKOPT_IP_ADDMEMBERSHIP IP_ADD_MEMBERSHIP  
8.139.2.25 #define OSCL_SOCKOPT_IP_MULTICAST_TTL IP_MULTICAST_TTL  
8.139.2.26 #define OSCL_SOCKOPT_IP_TOS IP_TOS  
8.139.2.27 #define OSCL_SOCKOPT_SOL_REUSEADDR SO_REUSEADDR          OSCL API

---

8.139.2.28 #define OSCL_SOL_IP IPPROTO_IP  
8.139.2.29 #define OSCL_SOL_SOCKET SOL_SOCKET  
8.139.2.30 #define OSCL_SOL_TCP IPPROTO_TCP
```

```
accept_s=accept(s,NULL,NULL); \
ok=(accept_s!=(-1)); \
if (!ok){err=errno;wouldblock=(err==EAGAIN||err==EWOULDBLOCK);}
```

8.139.2.33 #define OsclBind(s, addr, ok, err)**Value:**

```
TOsclSockAddr* tmpadr = &addr; \
sockaddr* sadr = OSCL_STATIC_CAST(sockaddr*, tmpadr); \
ok=(bind(s,sadr,sizeof(addr))!=(-1)); \
if (!ok)err=errno
```

8.139.2.34 #define OsclCloseSocket(s, ok, err)**Value:**

```
ok=(close(s)!=(-1)); \
if (!ok)err=errno
```

8.139.2.35 #define OsclConnect(s, addr, ok, err, wouldblock)**Value:**

```
TOsclSockAddr* tmpadr = &addr; \
sockaddr* sadr = OSCL_STATIC_CAST(sockaddr*, tmpadr); \
ok=(connect(s,sadr,sizeof(addr))!=(-1)); \
if (!ok){err=errno;wouldblock=(err==EINPROGRESS);}
```

8.139.2.36 #define OsclConnectComplete(s, wset, eset, success, fail, ok, err)**Value:**

```
success=fail=false; \
if (FD_ISSET(s,&eset)) \
{fail=true;OsclGetAsyncSockErr(s,ok,err);} \
else if (FD_ISSET(s,&wset)) \
{OsclGetAsyncSockErr(s,ok,err);if (ok && err==0)success=true;else fail=true;}
```

8.139.2.37 #define OsclGetAsyncSockErr(s, ok, err)**Value:**

```
int opterr;socklen_t optlen(sizeof(opterr)); \
ok=(getsockopt(s,SOL_SOCKET,SO_ERROR,(void *)&opterr,&optlen)!=(-1)); \
if(ok)err=opterr;else err=errno;
```

8.139.2.38 #define OsclGetDottedAddr(hostent, dottedaddr, ok)**Value:**

```
long *_hostaddr=(long*)hostent->h_addr_list[0];\
    struct in_addr _inaddr; \
    _inaddr.s_addr=_hostaddr; \
    dottedaddr=inet_ntoa(_inaddr); \
    ok=(dottedaddr!=NULL);
```

8.139.2.39 #define OsclGetDottedAddrVector(hostent, dottedaddr, dottedaddrvect, ok)**Value:**

```
if(dottedaddrvect) \
{ \
    long **_addrlist=(long**)hostent->h_addr_list; \
    for(int i = 0; _addrlist[i] != NULL; i++) { \
        struct in_addr _inaddr; \
        _inaddr.s_addr=*_addrlist[i]; \
        OsclNetworkAddress addr(inet_ntoa(_inaddr), 0); \
        dottedaddrvect->push_back(addr); \
    } \
    if (!dottedaddrvect->empty()) \
        {dottedaddr->port = dottedaddrvect->front().port; dottedaddr->ipAddr.Set( \
            dottedaddrvect->front().ipAddr.Str());} \
    ok=(!dottedaddrvect->empty() && (((*dottedaddrvect)[0]).ipAddr.Str() != NULL) \
        ); \
    } \
    else \
{ \
    char *add; \
    OsclGetDottedAddr(hostent, add, ok); \
    if(ok) dottedaddr->ipAddr.Set(add); \
}
```

8.139.2.40 #define OsclGethostbyname(name, hostent, ok, err)**Value:**

```
hostent=gethostbyname((const char*)name); \
ok=(hostent!=NULL); \
if (!ok)err=errno;
```

8.139.2.41 #define OsclGetPeerName(s, name, namelen, ok, err)**Value:**

```
ok=(getpeername(s, (sockaddr*)&name, (socklen_t*)&namelen) != (-1)); \
if (!ok)err=errno
```

8.139.2.42 #define OsclJoin(s, addr, ok, err)**Value:**

```
\\
    struct ip_mreq mreq; \
    void* p = &addr; \
ok=(bind(s,(sockaddr*)p,sizeof(addr))!=(-1)); \
mreq.imr_multiaddr.s_addr = addr.sin_addr.s_addr ; \
mreq.imr_interface.s_addr = htonl(INADDR_ANY); \
ok=(setsockopt(s, IPPROTO_IP, IP_ADD_MEMBERSHIP, &mreq, sizeof(struct ip_ \
mreq))!=(-1)); \
    if (!ok)err=errno; \
}
```

8.139.2.43 #define OsclListen(s, size, ok, err)**Value:**

```
ok=(listen(iSocket,qSize)!=(-1)); \
    if (!ok)err=errno
```

8.139.2.44 #define OsclMakeInAddr(in_addr, addrstr, ok)**Value:**

```
int32 result = inet_aton((const char*)addrstr, &in_addr); \
ok=(result!=0);
```

8.139.2.45 #define OsclMakeSockAddr(sockaddr, port, addrstr, ok)**Value:**

```
sockaddr.sin_family=OSCL_AF_INET; \
    sockaddr.sin_port=htons(port); \
    int32 result=inet_aton((const char*)addrstr,&sockaddr.sin_addr); \
ok=(result!=0);
```

8.139.2.46 #define OsclPipe(x) pipe(x)**8.139.2.47 #define OsclReadFD(fd, buf, cnt) read(fd,buf,cnt)****8.139.2.48 #define OsclRecv(s, buf, len, ok, err, nbytes, wouldblock)****Value:**

```
nbytes=recv(s,(void *)(buf),(size_t)(len),0); \
ok=(nbytes!=(-1)); \
if (!ok){err=errno;wouldblock=(err==EAGAIN);}
```

8.139.2.49 #define OsclRecvFrom(s, buf, len, paddr, paddrlen, ok, err, nbytes, wouldblock)**Value:**

```
\\
void* p=paddr; \
nbytes=recvfrom(s,(void*)(buf),(size_t)(len),0,(struct sockaddr*)p,paddrlen); \
ok=(nbytes!=(-1)); \
if (!ok){err=errno;wouldblock=(err==EAGAIN);}\
```

8.139.2.50 #define OsclSend(s, buf, len, ok, err, nbytes, wouldblock)**Value:**

```
nbytes=send(s, (const void*) (buf), (size_t) (len), 0); \
ok=(nbytes!=(-1)); \
if (!ok){err=errno;wouldblock=(err==EAGAIN||err==EWOULDBLOCK);}
```

8.139.2.51 #define OsclSendTo(s, buf, len, addr, ok, err, nbytes, wouldblock)**Value:**

```
TOsclSockAddr* tmpadr = &addr; \
sockaddr* sadr = OSCL_STATIC_CAST(sockaddr*, tmpadr); \
nbytes=sendto(s, (const void*) (buf), (size_t) (len), 0, sadr, (socklen_t) sizeof(addr)); \
ok=(nbytes!=(-1)); \
if (!ok){err=errno;wouldblock=(err==EAGAIN||err==EWOULDBLOCK);}
```

8.139.2.52 #define OsclSetNonBlocking(s, ok, err)**Value:**

```
ok=(fcntl(s,F_SETFL,O_NONBLOCK)!=(-1)); \
if (!ok)err=errno
```

8.139.2.53 #define OsclSetRecvBufferSize(s, val, ok, err)**Value:**

```
ok=(setsockopt(s,SOL_SOCKET,SO_RCVBUF,(char*)&val, sizeof(int)) !=-1); \
if (!ok)err=errno
```

8.139.2.54 #define OsclSetSockOpt(s, optLevel, optName, optVal, optLen, ok, err)**Value:**

```
ok=(setsockopt(s,optLevel,optName,OSCL_STATIC_CAST(const char*,optVal),optLen) !=(-1)); \
if (!ok)err=errno
```

8.139.2.55 #define OsclShutdown(s, how, ok, err)**Value:**

```
ok=(shutdown(iSocket,how)!=(-1)); \
if (!ok)err=errno
```

8.139.2.56 #define OsclSocket(s, fam, type, prot, ok, err)**Value:**

```
s=socket(fam,type,prot);\
ok=(s!=(-1));\
if (!ok)err=errno
```

8.139.2.57 #define OsclSocketCleanup(ok)**Value:**

```
signal(SIGPIPE,SIG_DFL);\
ok=true
```

8.139.2.58 #define OsclSocketSelect(nfds, rd, wr, ex, timeout, ok, err, nhandles)**Value:**

```
nhandles=select(nfds,&rd,&wr,&ex,&timeout);\
ok=(nhandles!=(-1));\
if (!ok)err=errno
```

8.139.2.59 #define OsclSocketStartup(ok)**Value:**

```
signal(SIGPIPE,SIG_IGN);\
ok=true
```

8.139.2.60 #define OsclUnMakeInAddr(in_addr, addrstr) addrstr=inet_ntoa(in_addr);**8.139.2.61 #define OsclUnMakeSockAddr(sockaddr, addrstr) addrstr=inet_ntoa(sockaddr.sin_addr);****8.139.2.62 #define OsclValidInetAddr(addr) (inet_addr(addr)!=INADDR_NONE)****8.139.2.63 #define OsclWriteFD(fd, buf, cnt) write(fd,buf,cnt)**

8.139.3 Typedef Documentation

8.139.3.1 typedef struct ip_mreq TIpMReq**8.139.3.2 typedef off64_t TOsclFileOffset****8.139.3.3 typedef struct hostent TOsclHostent****8.139.3.4 typedef struct sockaddr_in TOsclSockAddr****8.139.3.5 typedef socklen_t TOsclSockAddrLen****8.139.3.6 typedef int TOsclSocket**

8.140 osclconfig_io_check.h File Reference

Typedefs

- `typedef TOsclFileOffset __verify__TOsclFileOffset__defined__`

8.140.1 Typedef Documentation

8.140.1.1 `typedef TOsclFileOffset __verify__TOsclFileOffset__defined__`

OSCL_HAS_ANSI_FILE_IO_SUPPORT macro should be set to 1 if the target platform supports the ANSI C file I/O functions (`fopen`, `fread`, etc). Otherwise it should be set to 0. OSCL_HAS_ANSI_64BIT_FILE_IO_SUPPORT macro should be set to 1 if the target platform supports the 64-bit ANSI C file I/O functions (`fopen`, `fread`, etc). Otherwise it should be set to 0. OSCL_HAS_MSWIN_FILE_IO_SUPPORT macro should be set to 1 if the target platform supports the ANSI C file I/O functions (`fopen`, `fread`, etc). Otherwise it should be set to 0. OSCL_HAS_SYMBIAN_COMPATIBLE_IO_FUNCTION macro should be set to 1 if the target platform supports the Symbian file I/O functions (`RFile`, `RFs`). Otherwise it should be set to 0. On Symbian platforms only: OSCL_HAS_NATIVE_DUPLICATE_FILE_HANDLE macro should be set to 1 if the target platform supports the Symbian file I/O function `RFile::Duplicate`. Otherwise it should be set to 0. OSCL_HAS_NATIVE_FILE_CACHE_ENABLE macro should be set to 1 if the target platform includes native file cache capability. Otherwise it should be set to 0. OSCL_HAS_PV_FILE_CACHE macro should be set to 1 if the target platform includes PV file cache capability. Otherwise it should be set to 0. OSCL_HAS_LARGE_FILE_SUPPORT macro should be set to 1 if the target platform supports more than 32bit file I/O capability. Otherwise it should be set to 0. type `TOsclFileOffset` should be defined as the type used for file size and offsets on the target platform. Example: `typedef size_t TOsclFileOffset;`

8.141 osclconfig_ix86.h File Reference

This file contains configuration information for the ix86 processor family.

Defines

- #define OSCL_INTEGERS_WORD_ALIGNED 1
- #define OSCL_BYTE_ORDER_BIG_ENDIAN 0
- #define OSCL_BYTE_ORDER_LITTLE_ENDIAN 1

8.141.1 Detailed Description

This file contains configuration information for the ix86 processor family.

8.141.2 Define Documentation

8.141.2.1 #define OSCL_BYTE_ORDER_BIG_ENDIAN 0

8.141.2.2 #define OSCL_BYTE_ORDER_LITTLE_ENDIAN 1

8.141.2.3 #define OSCL_INTEGERS_WORD_ALIGNED 1

8.142 osclconfig_lib.h File Reference

This file contains configuration information for the ANSI build.

```
#include "osclconfig_lib_check.h"
```

Defines

- #define OSCL_HAS_RUNTIME_LIB_LOADING_SUPPORT 1
- #define PV_RUNTIME_LIB_FILENAME_EXTENSION "so"
- #define PV_DYNAMIC_LOADING_CONFIG_FILE_PATH "./"

8.142.1 Detailed Description

This file contains configuration information for the ANSI build.

8.142.2 Define Documentation

8.142.2.1 #define OSCL_HAS_RUNTIME_LIB_LOADING_SUPPORT 1

8.142.2.2 #define PV_DYNAMIC_LOADING_CONFIG_FILE_PATH "./"

8.142.2.3 #define PV_RUNTIME_LIB_FILENAME_EXTENSION "so"

8.143 osclconfig_lib_check.h File Reference

8.144 osclconfig_limits_typedefs.h File Reference

This file contains common typedefs based on the ANSI C limits.h header.

```
#include <limits.h>
```

Defines

- #define OSCL_CHAR_IS_UNSIGNED 1
- #define OSCL_CHAR_IS_SIGNED 0

8.144.1 Detailed Description

This file contains common typedefs based on the ANSI C limits.h header. This header file should work for any ANSI C compiler to determine the proper native C types to use for OSCL integer types.

8.144.2 Define Documentation

8.144.2.1 #define OSCL_CHAR_IS_SIGNED 0

8.144.2.2 #define OSCL_CHAR_IS_UNSIGNED 1

8.145 osclconfig_memory.h File Reference

```
#include "osclconfig.h"
#include "osclconfig_ansi_memory.h"
#include "osclconfig_memory_check.h"
```

Defines

- #define OSCL_BYPASS_MEMMGT 1
- #define OSCL_HAS_GLOBAL_NEW_DELETE 1
- #define PVMEM_INST_LEVEL 1
- #define OSCL_HAS_HEAP_BASE_SUPPORT 1
- #define OSCL_HAS_SYMBIAN_MEMORY_FUNCS 0

8.145.1 Define Documentation

8.145.1.1 #define OSCL_BYPASS_MEMMGT 1

8.145.1.2 #define OSCL_HAS_GLOBAL_NEW_DELETE 1

8.145.1.3 #define OSCL_HAS_HEAP_BASE_SUPPORT 1

8.145.1.4 #define OSCL_HAS_SYMBIAN_MEMORY_FUNCS 0

8.145.1.5 #define PVMEM_INST_LEVEL 1

8.146 osclconfig_memory_check.h File Reference

8.147 osclconfig_no_os.h File Reference

Defines

- #define OSCL_HAS_UNIX_SUPPORT 0
- #define OSCL_HAS_MSWIN_SUPPORT 0
- #define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_SUPPORT 0
- #define OSCL_HAS_SAVAJE_SUPPORT 0
- #define OSCL_HAS_PV_C_OS_SUPPORT 0
- #define OSCL_HAS_ANDROID_SUPPORT 0
- #define OSCL_HAS_IPHONE_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_ERRORTRAP 0
- #define OSCL_HAS_SYMBIAN_MEMORY_FUNCS 0
- #define OSCL_HAS_PV_C_OS_API_MEMORY_FUNCS 0
- #define OSCL_HAS_PV_C_OS_TIME_FUNCS 0
- #define OSCL_HAS_UNIX_TIME_FUNCS 0
- #define OSCL_HAS_SYMBIAN_TIMERS 0
- #define OSCL_HAS_SYMBIAN_MATH 0
- #define OSCL_HAS_SYMBIAN_SCHEDULER 0
- #define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 0
- #define OSCL_HAS_PTHREAD_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_COMPATIBLE_IO_FUNCTION 0
- #define OSCL_HAS_SAVAJE_IO_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_SOCKET_SERVER 0
- #define OSCL_HAS_SYMBIAN_DNS_SERVER 0
- #define OSCL_HAS_BERKELEY_SOCKETS 0

8.148 osclconfig_proc.h File Reference

This file contains configuration information for the linux platform.

```
#include "osclconfig.h"  
#include "osclconfig_proc_unix_android.h"  
#include <pthread.h>  
#include <errno.h>  
#include <signal.h>  
#include "osclconfig_proc_check.h"
```

8.148.1 Detailed Description

This file contains configuration information for the linux platform.

8.149 osclconfig_proc_check.h File Reference

Typedefs

- `typedef TOsclThreadId __verify__TOsclThreadId_defined__`
- `typedef TOsclThreadFuncRet __verify__TOsclThreadFuncRet_defined__`
- `typedef TOsclThreadFuncArg __verify__TOsclThreadFuncArg_defined__`
- `typedef TOsclThreadObject __verify__TOsclThreadObject_defined__`
- `typedef TOsclMutexObject __verify__TOsclMutexObject_defined__`
- `typedef TOsclSemaphoreObject __verify__TOsclSemaphoreObject_defined__`
- `typedef TOsclConditionObject __verify__TOsclConditionObject_defined__`

8.149.1 Typedef Documentation

8.149.1.1 `typedef TOsclConditionObject __verify__TOsclConditionObject_defined__`

type `TOsclConditionObject` should be defined as the type used as a condition variable on the target platform.
Example: `typedef pthread_cond_t TOsclConditionObject;`

Note: Condition variables are only used with certain semaphore implementations. If the semaphore implementation does not require a condition variable, then this type can be defined as 'int' as follows: `typedef int TOsclConditionObject; //not used`

8.149.1.2 `typedef TOsclMutexObject __verify__TOsclMutexObject_defined__`

type `TOsclMutexObject` should be defined as the type used as a mutex object or handle on the target platform. Example: `typedef pthread_mutex_t TOsclMutexObject;`

8.149.1.3 `typedef TOsclSemaphoreObject __verify__TOsclSemaphoreObject_defined__`

type `TOsclSemaphoreObject` should be defined as the type used as a mutex object or handle on the target platform. Example: `typedef sem_t TOsclSemaphoreObject;`

8.149.1.4 `typedef TOsclThreadFuncArg __verify__TOsclThreadFuncArg_defined__`

type `TOsclThreadFuncArg` should be defined as the type used as a thread function argument on the target platform. Example: `typedef LPVOID TOsclThreadFuncArg;`

8.149.1.5 `typedef TOsclThreadFuncRet __verify__TOsclThreadFuncRet_defined__`

type `TOsclThreadFuncRet` should be defined as the type used as a thread function return value on the target platform. Example: `typedef DWORD TOsclThreadFuncRet;`

8.149.1.6 `typedef TOsclThreadId __verify__TOsclThreadId_defined__`

`OSCL_HAS_THREAD_SUPPORT` macro should be set to 1 if the target platform supports threads. Otherwise it should be set to 0. `OSCL_HAS_NON_PREEMPTIVE_THREAD_SUPPORT` macro should be set to 1 if the target platform supports non-pre-emptive threads. Otherwise it should be set to 0. `OSCL_HAS_SYMBIAN_SCHEDULER` macro should be set to 1 if the target platform supports Symbian active object

scheduler. Otherwise it should be set to 0. OSCL_HAS_SEM_TIMEDWAIT_SUPPORT macro should be set to 1 if the target platform supports POSIX-compliant semaphores (semaphore.h) with advanced realtime features including sem_timedwait. Otherwise it should be set to 0. OSCL_HAS_PTHREAD_SUPPORT macro should be set to 1 if the target platform supports POSIX-compliant pthreads (pthread.h). Otherwise it should be set to 0. type TOsclThreadId should be defined as the type used as a thread ID on the target platform. Example: `typedef DWORD TOsclThreadId;`

8.149.1.7 `typedef TOsclThreadObject __verify__TOsclThreadObject__defined__`

OSCL_THREAD_DECL macro should be defined to the necessary function declaration modifiers for thread routines, or a null macro if no modifiers are needed. Example: define OSCL_THREAD_DECL WINAPI Example of a declaration of a thread routine called MyThreadMain using the Oscl definitions:

`static TOsclThreadFuncRet OSCL_THREAD_DECL MyThreadMain(TOsclThreadFuncArg arg);` type TOsclThreadObject should be defined as the type used as a thread object or handle on the target platform. Example: `typedef pthread_t TOsclThreadObject;`

8.150 osclconfig_proc_unix_android.h File Reference

```
#include <pthread.h>
#include <errno.h>
#include <signal.h>
```

Defines

- #define OSCL_HAS_SYMBIAN_SCHEDULER 0
- #define OSCL_HAS_THREAD_SUPPORT 1
- #define OSCL_HAS_NON_PREEMPTIVE_THREAD_SUPPORT 0
- #define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 0
- #define OSCL_HAS_PTHREAD_SUPPORT 1
- #define OSCL_THREAD_DECL

Typedefs

- typedef pthread_t TOsclThreadId
- typedef void * TOsclThreadFuncArg
- typedef void * TOsclThreadFuncRet
- typedef pthread_t TOsclThreadObject
- typedef pthread_mutex_t TOsclMutexObject
- typedef int TOsclSemaphoreObject
- typedef pthread_cond_t TOsclConditionObject

8.150.1 Define Documentation

8.150.1.1 `#define OSCL_HAS_NON_PREEMPTIVE_THREAD_SUPPORT 0`

8.150.1.2 `#define OSCL_HAS_PTHREAD_SUPPORT 1`

8.150.1.3 `#define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 0`

8.150.1.4 `#define OSCL_HAS_SYMBIAN_SCHEDULER 0`

8.150.1.5 `#define OSCL_HAS_THREAD_SUPPORT 1`

8.150.1.6 `#define OSCL_THREAD_DECL`

8.150.2 Typedef Documentation

8.150.2.1 `typedef pthread_cond_t TOsclConditionObject`

8.150.2.2 `typedef pthread_mutex_t TOsclMutexObject`

8.150.2.3 `typedef int TOsclSemaphoreObject`

8.150.2.4 `typedef void* TOsclThreadFuncArg`

8.150.2.5 `typedef void* TOsclThreadFuncRet`

8.150.2.6 `typedef pthread_t TOsclThreadId`

8.150.2.7 `typedef pthread_t TOsclThreadObject`

8.151 osclconfig_proc_unix_common.h File Reference

```
#include <time.h>
#include <semaphore.h>
#include <pthread.h>
#include <errno.h>
```

Defines

- #define OSCL_HAS_SYMBIAN_SCHEDULER 0
- #define OSCL_HAS_THREAD_SUPPORT 1
- #define OSCL_HAS_NON_PREEMPTIVE_THREAD_SUPPORT 0
- #define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 1
- #define OSCL_HAS_PTHREAD_SUPPORT 1
- #define OSCL_THREAD_DECL

Typedefs

- typedef pthread_t TOsclThreadId
- typedef void * TOsclThreadFuncArg
- typedef void * TOsclThreadFuncRet
- typedef pthread_t TOsclThreadObject
- typedef pthread_mutex_t TOsclMutexObject
- typedef sem_t TOsclSemaphoreObject
- typedef pthread_cond_t TOsclConditionObject

8.151.1 Define Documentation

8.151.1.1 `#define OSCL_HAS_NON_PREEMPTIVE_THREAD_SUPPORT 0`

8.151.1.2 `#define OSCL_HAS_PTHREAD_SUPPORT 1`

8.151.1.3 `#define OSCL_HAS_SEM_TIMEDWAIT_SUPPORT 1`

8.151.1.4 `#define OSCL_HAS_SYMBIAN_SCHEDULER 0`

8.151.1.5 `#define OSCL_HAS_THREAD_SUPPORT 1`

8.151.1.6 `#define OSCL_THREAD_DECL`

8.151.2 Typedef Documentation

8.151.2.1 `typedef pthread_cond_t TOsclConditionObject`

8.151.2.2 `typedef pthread_mutex_t TOsclMutexObject`

8.151.2.3 `typedef sem_t TOsclSemaphoreObject`

8.151.2.4 `typedef void* TOsclThreadFuncArg`

8.151.2.5 `typedef void* TOsclThreadFuncRet`

8.151.2.6 `typedef pthread_t TOsclThreadId`

8.151.2.7 `typedef pthread_t TOsclThreadObject`

8.152 osclconfig_time.h File Reference

```
#include "osclconfig.h"
#include <time.h>
#include <sys/time.h>
#include <unistd.h>
#include "osclconfig_time_check.h"
```

Defines

- #define OSCL_HAS_UNIX_TIME_FUNCS 1

TypeDefs

- typedef struct timeval OsclBasicTimeStruct
- typedef tm OsclBasicDateTimeStruct

8.152.1 Define Documentation

8.152.1.1 #define OSCL_HAS_UNIX_TIME_FUNCS 1

8.152.2 Typedef Documentation

8.152.2.1 typedef tm OsclBasicDateTimeStruct

8.152.2.2 typedef struct timeval OsclBasicTimeStruct

8.153 osclconfig_time_check.h File Reference

Typedefs

- `typedef OsclBasicTimeStruct __Validate__BasicTimeStruct__`
- `typedef OsclBasicDateTimeStruct __Validate__BasicTimeDateStruct__`

8.153.1 Typedef Documentation

8.153.1.1 `typedef OsclBasicDateTimeStruct __Validate__BasicTimeDateStruct__`

`OsclBasicDateTimeStruct` type should be defined to the platform-specific date + time type.

8.153.1.2 `typedef OsclBasicTimeStruct __Validate__BasicTimeStruct__`

`OSCL_HAS_UNIX_TIME_FUNCS` macro should be set to 1 if the target platform supports unix time of day functions. Otherwise it should be set to 0. `OsclBasicTimeStruct` type should be defined to the platform-specific time of day type.

8.154 osclconfig_unix_android.h File Reference

```
#include <stdlib.h>
#include <stdarg.h>
#include <sys/types.h>
#include <stdio.h>
#include <string.h>
#include <unistd.h>
#include <pthread.h>
#include <ctype.h>
#include <math.h>
```

Defines

- #define OSCL_DISABLE_INLINES 0
- #define OSCL_HAS_ANSI_STDLIB_SUPPORT 1
- #define OSCL_HAS_ANSI_MATH_SUPPORT 1
- #define OSCL_HAS_GLOBAL_VARIABLE_SUPPORT 1
- #define OSCL_HAS_ANSI_STRING_SUPPORT 1
- #define OSCL_HAS_ANSI_WIDE_STRING_SUPPORT 0
- #define OSCL_HAS_ANSI_STDIO_SUPPORT 1
- #define OSCL_MEMFRAG_PTR_BEFORE_LEN 1
- #define OSCL_HAS_UNIX_SUPPORT 1
- #define OSCL_HAS_MSWIN_SUPPORT 0
- #define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_SUPPORT 0
- #define OSCL_HAS_IPHONE_SUPPORT 0
- #define OSCL_NATIVE_INT64_TYPE int64_t
- #define OSCL_NATIVE_UINT64_TYPE uint64_t
- #define INT64(x) x##LL
- #define UINT64(x) x##ULL
- #define INT64_HILO(high, low) (((high##LL)<<32)|low)
- #define UINT64_HILO(high, low) (((high##ULL)<<32)|low)
- #define OSCL_HAS_UNICODE_SUPPORT 1
- #define OSCL_NATIVE_WCHAR_TYPE wchar_t
- #define _STRLIT(x) x
- #define _STRLIT_CHAR(x) x
- #define _STRLIT_WCHAR(x) L ## x
- #define OSCL_HAS_TLS_SUPPORT 1
- #define OSCL_TLS_IS_KEYED 1
- #define OSCL_TLS_KEY_CREATE_FUNC(key) (pthread_key_create(&key,NULL)==0)
- #define OSCL_TLS_KEY_DELETE_FUNC(key) pthread_key_delete(key)
- #define OSCL_TLS_STORE_FUNC(key, ptr) (pthread_setspecific(key,(const void*)ptr)==0)
- #define OSCL_TLS_GET_FUNC(key) pthread_getspecific(key)
- #define OSCL_HAS_BASIC_LOCK 1

Typedefs

- `typedef pthread_key_t TOsclTlsKey`

- `typedef pthread_mutex_t TOsclBasicLockObject`

8.154.1 Define Documentation

8.154.1.1 `#define _STRLIT(x) x`

8.154.1.2 `#define _STRLIT_CHAR(x) x`

8.154.1.3 `#define _STRLIT_WCHAR(x) L ## x`

8.154.1.4 `#define INT64(x) x##LL`

8.154.1.5 `#define INT64_HILO(high, low) (((high##LL))<<32)|low)`

8.154.1.6 `#define OSCL_DISABLE_INLINES 0`

8.154.1.7 `#define OSCL_HAS_ANSI_MATH_SUPPORT 1`

8.154.1.8 `#define OSCL_HAS_ANSI_STDIO_SUPPORT 1`

8.154.1.9 `#define OSCL_HAS_ANSI_STDLIB_SUPPORT 1`

8.154.1.10 `#define OSCL_HAS_ANSI_STRING_SUPPORT 1`

8.154.1.11 `#define OSCL_HAS_ANSI_WIDE_STRING_SUPPORT 0`

8.154.1.12 `#define OSCL_HAS_BASIC_LOCK 1`

8.154.1.13 `#define OSCL_HAS_GLOBAL_VARIABLE_SUPPORT 1`

8.154.1.14 `#define OSCL_HAS_IPHONE_SUPPORT 0`

8.154.1.15 `#define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0`

8.154.1.16 `#define OSCL_HAS_MSWIN_SUPPORT 0`

8.154.1.17 `#define OSCL_HAS_SYMBIAN_SUPPORT 0`

8.154.1.18 `#define OSCL_HAS_TLS_SUPPORT 1`

8.154.1.19 `#define OSCL_HAS_UNICODE_SUPPORT 1`

8.154.1.20 `#define OSCL_HAS_UNIX_SUPPORT 1`

8.154.1.21 `#define OSCL_MEMFRAG_PTR_BEFORE_LEN 1`

8.154.1.22 `#define OSCL_NATIVE_INT64_TYPE int64_t`

8.154.1.23 `#define OSCL_NATIVE_UINT64_TYPE uint64_t`

8.154.1.24 `#define OSCL_NATIVE_WCHAR_TYPE wchar_t`

8.154.1.25 `#define OSCL_TLS_GET_FUNC(key) pthread_getspecific(key)`

8.154.1.26 `#define OSCL_TLS_IS_KEYED 1`

8.154.1.27 `#define OSCL_TLS_KEY_CREATE_FUNC(key) (pthread_key_create(&key,NULL)==0)` OSCL API

8.154.1.28 `#define OSCL_TLS_KEY_DELETE_FUNC(key) pthread_key_delete(key)`

8.154.1.29 `#define OSCL_TLS_STORE_FUNC(key, ptr) (pthread_setspecific(key,(const void*)ptr)==0)`

8.155 osclconfig_unix_common.h File Reference

```
#include <stdlib.h>
#include <stdarg.h>
#include <sys/types.h>
#include <stdio.h>
#include <wchar.h>
#include <string.h>
#include <unistd.h>
#include <pthread.h>
#include <ctype.h>
#include <math.h>
```

Defines

- #define OSCL_DISABLE_INLINES 0
- #define OSCL_HAS_ANSI_STDLIB_SUPPORT 1
- #define OSCL_HAS_ANSI_MATH_SUPPORT 1
- #define OSCL_HAS_GLOBAL_VARIABLE_SUPPORT 1
- #define OSCL_HAS_ANSI_STRING_SUPPORT 1
- #define OSCL_HAS_ANSI_WIDE_STRING_SUPPORT 1
- #define OSCL_HAS_ANSI_STDIO_SUPPORT 1
- #define OSCL_MEMFRAG_PTR_BEFORE_LEN 1
- #define OSCL_HAS_UNIX_SUPPORT 1
- #define OSCL_HAS_MSWIN_SUPPORT 0
- #define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0
- #define OSCL_HAS_SYMBIAN_SUPPORT 0
- #define OSCL_NATIVE_INT64_TYPE int64_t
- #define OSCL_NATIVE_UINT64_TYPE uint64_t
- #define INT64(x) x##LL
- #define UINT64(x) x##ULL
- #define INT64_HILO(high, low) (((high##LL))<<32)|low)
- #define UINT64_HILO(high, low) (((high##ULL))<<32)|low)
- #define OSCL_HAS_UNICODE_SUPPORT 1
- #define OSCL_NATIVE_WCHAR_TYPE wchar_t
- #define _STRLIT(x) L ## x
- #define _STRLIT_CHAR(x) x
- #define _STRLIT_WCHAR(x) L ## x
- #define OSCL_HAS_TLS_SUPPORT 1
- #define OSCL_TLS_IS_KEYED 1
- #define OSCL_TLS_KEY_CREATE_FUNC(key) (pthread_key_create(&key,NULL)==0)
- #define OSCL_TLS_KEY_DELETE_FUNC(key) pthread_key_delete(key)
- #define OSCL_TLS_STORE_FUNC(key, ptr) (pthread_setspecific(key,(const void*)ptr)==0)
- #define OSCL_TLS_GET_FUNC(key) pthread_getspecific(key)
- #define OSCL_HAS_BASIC_LOCK 1

Typedefs

- `typedef pthread_key_t TOsclTlsKey`

- `typedef pthread_mutex_t TOsclBasicLockObject`

8.155.1 Define Documentation

- 8.155.1.1 `#define _STRLIT(x) L ## x`
- 8.155.1.2 `#define _STRLIT_CHAR(x) x`
- 8.155.1.3 `#define _STRLIT_WCHAR(x) L ## x`
- 8.155.1.4 `#define INT64(x) x##LL`
- 8.155.1.5 `#define INT64_HILO(high, low) (((high##LL))<<32)|low)`
- 8.155.1.6 `#define OSCL_DISABLE_INLINES 0`
- 8.155.1.7 `#define OSCL_HAS_ANSI_MATH_SUPPORT 1`
- 8.155.1.8 `#define OSCL_HAS_ANSI_STDIO_SUPPORT 1`
- 8.155.1.9 `#define OSCL_HAS_ANSI_STDLIB_SUPPORT 1`
- 8.155.1.10 `#define OSCL_HAS_ANSI_STRING_SUPPORT 1`
- 8.155.1.11 `#define OSCL_HAS_ANSI_WIDE_STRING_SUPPORT 1`
- 8.155.1.12 `#define OSCL_HAS_BASIC_LOCK 1`
- 8.155.1.13 `#define OSCL_HAS_GLOBAL_VARIABLE_SUPPORT 1`
- 8.155.1.14 `#define OSCL_HAS_MSWIN_PARTIAL_SUPPORT 0`
- 8.155.1.15 `#define OSCL_HAS_MSWIN_SUPPORT 0`
- 8.155.1.16 `#define OSCL_HAS_SYMBIAN_SUPPORT 0`
- 8.155.1.17 `#define OSCL_HAS_TLS_SUPPORT 1`
- 8.155.1.18 `#define OSCL_HAS_UNICODE_SUPPORT 1`
- 8.155.1.19 `#define OSCL_HAS_UNIX_SUPPORT 1`
- 8.155.1.20 `#define OSCL_MEMFRAG_PTR_BEFORE_LEN 1`
- 8.155.1.21 `#define OSCL_NATIVE_INT64_TYPE int64_t`
- 8.155.1.22 `#define OSCL_NATIVE_UINT64_TYPE uint64_t`
- 8.155.1.23 `#define OSCL_NATIVE_WCHAR_TYPE wchar_t`
- 8.155.1.24 `#define OSCL_TLS_GET_FUNC(key) pthread_getspecific(key)`
- 8.155.1.25 `#define OSCL_TLS_IS_KEYED 1`
- 8.155.1.26 `#define OSCL_TLS_KEY_CREATE_FUNC(key) (pthread_key_create(&key,NULL)==0)`
- 8.155.1.27 `#define OSCL_TLS_KEY_DELETE_FUNC(key) pthread_key_delete(key)`
- 8.155.1.28 `#define OSCL_TLS_STORE_FUNC(key, ptr) (pthread_setspecific(key,(const void*)ptr)==0)`
- 8.155.1.29 `#define UINT64(x) x##ULL`

8.156 osclconfig_util.h File Reference

```
#include "osclconfig.h"
#include <stdio.h>
#include <time.h>
#include <sys/time.h>
#include <unistd.h>
#include "osclconfig_util_check.h"
```

Defines

- #define OSCL_CLOCK_HAS_DRIFT_CORRECTION 0
- #define OSCL_HAS_SYMBIAN_TIMERS 0
- #define OSCL_HAS_SYMBIAN_MATH 0
- #define OSCL RAND_MAX RAND_MAX
- #define OSCL_HAS_SNPRINTF_LONGLONG_SUPPORT 1
- #define SLEEP_ONE_SEC sleep(1)

8.156.1 Define Documentation

8.156.1.1 #define OSCL_CLOCK_HAS_DRIFT_CORRECTION 0

8.156.1.2 #define OSCL_HAS_SNPRINTF_LONGLONG_SUPPORT 1

8.156.1.3 #define OSCL_HAS_SYMBIAN_MATH 0

8.156.1.4 #define OSCL_HAS_SYMBIAN_TIMERS 0

8.156.1.5 #define OSCL RAND_MAX RAND_MAX

8.156.1.6 #define SLEEP_ONE_SEC sleep(1)

8.157 osclconfig_util_check.h File Reference

8.158 pvlogger.h File Reference

This file contains basic logger interfaces for common use across platforms.

```
#include "oscl_base.h"
#include "oscl_vector.h"
#include "oscl_defalloc.h"
#include "oscl_shared_ptr.h"
#include "oscl_refcounter.h"
#include "osclconfig_compiler_warnings.h"
#include "osclconfig.h"
#include "osclconfig_memory.h"
```

Data Structures

- class [PVLogger](#)

Defines

- #define PVLOGMSG_INST_REL 0
- #define PVLOGMSG_INST_PROF 1
- #define PVLOGMSG_INST_HLDBG 2
- #define PVLOGMSG_INST_MLDBG 3
- #define PVLOGMSG_INST_LLDBG 4
- #define PVLOGGER_INST_LEVEL 5
- #define _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)
- #define _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)
- #define _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- #define _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_INST_LEVEL_SUPPORT 1
- #define PVLOGGER_LOGMSG_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGBIN_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGBIN_V_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGMSG_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGBIN_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGBIN_V_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- #define PVLOGGER_LOGMSG_PVLOGMSG_INST_HLDBG(LOGGER, LEVEL, MESSAGE) _- PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)

- #define **PVLOGGER_LOGMSG_V_PVLOGMSG_INST_HLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_PVLOGMSG_INST_HLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_V_PVLOGMSG_INST_HLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGMSG_PVLOGMSG_INST_MLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGMSG_V_PVLOGMSG_INST_MLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_PVLOGMSG_INST_MLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_V_PVLOGMSG_V_INST_MLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGMSG_PVLOGMSG_INST_LLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGMSG_V_PVLOGMSG_INST_LLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_PVLOGMSG_INST_LLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_V_PVLOGMSG_INST_LLDBG**(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGMSG(IL, LOGGER, LEVEL, MESSAGE)** PVLOGGER_LOGMSG_##IL(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGMSG_V(IL, LOGGER, LEVEL, MESSAGE)** PVLOGGER_LOGMSG_V_##IL(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN(IL, LOGGER, LEVEL, MESSAGE)** PVLOGGER_LOGBIN_##IL(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOGBIN_V(IL, LOGGER, LEVEL, MESSAGE)** PVLOGGER_LOGBIN_V_##IL(LOGGER, LEVEL, MESSAGE)
- #define **PVLOGGER_LOG_USE_ONLY(x)** x
- #define **PVLOGGER_ENABLE** 1

Variables

- const int32 **PVLOGGER_LEVEL_UNINITIALIZED** = -1
- const **PVLogger::log_level_type PVLOGMSG_EMERG** = 0
- const **PVLogger::log_level_type PVLOGMSG_ALERT** = 1
- const **PVLogger::log_level_type PVLOGMSG_CRIT** = 2
- const **PVLogger::log_level_type PVLOGMSG_ERR** = 3
- const **PVLogger::log_level_type PVLOGMSG_WARNING** = 4
- const **PVLogger::log_level_type PVLOGMSG_NOTICE** = 5
- const **PVLogger::log_level_type PVLOGMSG_INFO** = 6
- const **PVLogger::log_level_type PVLOGMSG_STACK_TRACE** = 7
- const **PVLogger::log_level_type PVLOGMSG_DEBUG** = 8
- const **PVLogger::log_level_type PVLOGMSG_FATAL_ERROR** = **PVLOGMSG_EMERG**
- const **PVLogger::log_level_type PVLOGMSG_NONFATAL_ERROR** = **PVLOGMSG_ERR**
- const **PVLogger::log_level_type PVLOGMSG_STATISTIC** = **PVLOGMSG_INFO**
- const **PVLogger::log_level_type PVLOGMSG_VERBOSE** = **PVLOGMSG_DEBUG**

8.158.1 Detailed Description

This file contains basic logger interfaces for common use across platforms. This is the main entry point header file for the logger library. It should be the only one users directly include.

8.158.2 Define Documentation

8.158.2.1 #define _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)

Value:

```
{\
    if (LOGGER) \
{\
    if (LOGGER->IsActive(LEVEL)) \
{\
    LOGGER->LogMsgBuffers MESSAGE; \
}\
}\
}
```

8.158.2.2 #define _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)

Value:

```
{\
    if (LOGGER) \
{\
    if (LOGGER->IsActive(LEVEL)) \
{\
    LOGGER->LogMsgBuffersV MESSAGE; \
}\
}\
}
```

8.158.2.3 #define _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)

Value:

```
{\
    if (LOGGER) \
{\
    if (LOGGER->IsActive(LEVEL)) \
{\
    LOGGER->LogMsgString MESSAGE; \
}\
}\
}
```

8.158.2.4 #define _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)

Value:

```
{\
    if (LOGGER) \

```

```

{ \
    if (LOGGER->IsActive(LEVEL)) \
    { \
        LOGGER->LogMsgStringV MESSAGE; \
    } \
}

```

8.158.2.5 #define PVLOGGER_ENABLE 1

In case logging is compiled out, there is no need to compile the logger runtime code either.

8.158.2.6 #define PVLOGGER_INST_LEVEL 5

8.158.2.7 #define PVLOGGER_INST_LEVEL_SUPPORT 1

8.158.2.8 #define PVLOGGER_LOG_USE_ONLY(x) x

Used to compile in/out lines of code that are used only for [PVLogger](#) macros.

This code will be removed at compile time when [PVLogger](#) is disabled, i.e. Release mode. So do not put in any code that is necessary for correct functionality of the module

8.158.2.9 #define PVLOGGER_LOGBIN(IL, LOGGER, LEVEL, MESSAGE) PVLOGGER_LOGBIN_## IL (LOGGER, LEVEL, MESSAGE)

This is a binary API to log messages

Parameters

IL Instrumentation level.

LOGGER Pointer to the logger object, that acts as the logging control/interface point

LEVEL Log level of the message

MESSAGE Log Message which includes the message id, and message buffers that need to be logged.

Example Usage: PVLOGGER_LOGBIN (PVLOGMSG_INST_LLDBG, logger_1, PVLOGMSG_WARNING, (10, 3, msgBuf1Size, msgBuf1, msgBuf2Size, msgBuf2, msgBuf3Size, msgBuf3));

-This message contains THREE (ptr_len, ptr) pairs. Log level of this msg is PVLOGMSG_WARNING, message id is 10.

- 8.158.2.10 #define PVLOGGER_LOGBIN_PVLOGMSG_INST_HLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- 8.158.2.11 #define PVLOGGER_LOGBIN_PVLOGMSG_INST_LLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- 8.158.2.12 #define PVLOGGER_LOGBIN_PVLOGMSG_INST_MLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- 8.158.2.13 #define PVLOGGER_LOGBIN_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- 8.158.2.14 #define PVLOGGER_LOGBIN_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN(LOGGER, LEVEL, MESSAGE)
- 8.158.2.15 #define PVLOGGER_LOGBIN_V(IL, LOGGER, LEVEL, MESSAGE) PVLOGGER_LOGBIN_V_ ## IL (LOGGER, LEVEL, MESSAGE)
- 8.158.2.16 #define PVLOGGER_LOGBIN_V_PVLOGMSG_INST_HLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- 8.158.2.17 #define PVLOGGER_LOGBIN_V_PVLOGMSG_INST_LLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- 8.158.2.18 #define PVLOGGER_LOGBIN_V_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- 8.158.2.19 #define PVLOGGER_LOGBIN_V_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- 8.158.2.20 #define PVLOGGER_LOGBIN_V_PVLOGMSG_V_INST_MLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGBIN_V(LOGGER, LEVEL, MESSAGE)
- 8.158.2.21 #define PVLOGGER_LOGMSG(IL, LOGGER, LEVEL, MESSAGE) PVLOGGER_LOGMSG_ ## IL (LOGGER, LEVEL, MESSAGE)

This is the text based API to log messages

Parameters

IL Instrumentation level.

LOGGER Pointer to the logger object, that acts as the logging control/interface point

LEVEL Log level of the message

MESSAGE Log Message which includes the message id, and any kind of formatting information

Example Usage: PVLOGGER_LOGMSG(PVLOGMSG_INST_LLDBG, logger_1, PVLOGMSG_WARNING, (13, "Test Messsage to Node 1\n")); -This message of log level PVLOGMSG_WARNING, and has a message id of 13

- 8.158.2.22 `#define PVLOGGER_LOGMSG_PVLOGMSG_INST_HLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.23 `#define PVLOGGER_LOGMSG_PVLOGMSG_INST_LLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.24 `#define PVLOGGER_LOGMSG_PVLOGMSG_INST_MLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.25 `#define PVLOGGER_LOGMSG_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.26 `#define PVLOGGER_LOGMSG_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.27 `#define PVLOGGER_LOGMSG_V(IL, LOGGER, LEVEL, MESSAGE) PVLOGGER_LOGMSG_V_## IL (LOGGER, LEVEL, MESSAGE)`
- 8.158.2.28 `#define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_HLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.29 `#define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_LLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.30 `#define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_MLDBG(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.31 `#define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_PROF(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.32 `#define PVLOGGER_LOGMSG_V_PVLOGMSG_INST_REL(LOGGER, LEVEL, MESSAGE) _PVLOGGER_LOGMSG_V(LOGGER, LEVEL, MESSAGE)`
- 8.158.2.33 `#define PVLOGMSG_INST_HLDBG 2`

High Level Debug Layer

This layer should contain messages that have very minimal impact on performance, but are at lower level (i.e., provide more information) than would be appropriate in a shipping product. The messages are probably used to gather information and validate proper functionality at a high level as might be appropriate for IOT, stress testing, or QA testing.

8.158.2.34 `#define PVLOGMSG_INST_LLDBG 4`

Low Level Debug Layer

This layer should contain messages for early functional testing. The messages are typically at a very low-level and allow testing the functionality of individual modules and components. Messages at this layer will typically have a performance impact (sometimes significant) due to the fact that they are at such a low level.

8.158.2.35 #define PVLOGMSG_INST_MLDBG 3

Mid Level Debug Layer

This layer should contain messages that are useful in the middle stages of the development cycle where major components are being integrated. The components themselves should already be well-tested so the emphasis is on interfaces between these components and integration testing. Messages at this layer may have some performance impact.

8.158.2.36 #define PVLOGMSG_INST_PROF 1

Profile Layer

The profile layer is used for messages and information related to measuring and reporting performance-related information.

8.158.2.37 #define PVLOGMSG_INST_REL 0

Release Layer

The release layer should only be used for messages that should remain in the final release. In certain cases all messaging may be disabled depending on customer requirements. However, when allowed the release layer should contain information that will be useful diagnosing problems in a released product (perhaps after entering a diagnostic mode), but with absolutely minimal performance impact when disabled at runtime.

8.158.3 Variable Documentation

8.158.3.1 const int32 PVLOGGER_LEVEL_UNINITIALIZED = -1**8.158.3.2 const PVLogger::log_level_type PVLOGMSG_ALERT = 1**

action must be taken immediately

8.158.3.3 const PVLogger::log_level_type PVLOGMSG_CRIT = 2

critical conditions

8.158.3.4 const PVLogger::log_level_type PVLOGMSG_DEBUG = 8

debug-level messages

8.158.3.5 const PVLogger::log_level_type PVLOGMSG_EMERG = 0

system is unusable

8.158.3.6 const PVLogger::log_level_type PVLOGMSG_ERR = 3

error conditions

8.158.3.7 const PVLogger::log_level_type PVLOGMSG_FATAL_ERROR = PVLOGMSG_EMERG

8.158.3.8 const PVLogger::log_level_type PVLOGMSG_INFO = 6

informational

8.158.3.9 const PVLogger::log_level_type PVLOGMSG_NONFATAL_ERROR = PVLOGMSG_ERR

8.158.3.10 const PVLogger::log_level_type PVLOGMSG_NOTICE = 5

normal but significant condition

8.158.3.11 const PVLogger::log_level_type PVLOGMSG_STACK_TRACE = 7

function enter and exit

8.158.3.12 const PVLogger::log_level_type PVLOGMSG_STATISTIC = PVLOGMSG_INFO

8.158.3.13 const PVLogger::log_level_type PVLOGMSG_VERBOSE = PVLOGMSG_DEBUG

8.158.3.14 const PVLogger::log_level_type PVLOGMSG_WARNING = 4

warning conditions

8.159 pvlogger_accessories.h File Reference

```
#include "oscl_base.h"
#include "pvlogger.h"
#include "oscl_vector.h"
#include "oscl_defalloc.h"
#include "oscl_shared_ptr.h"
#include "oscl_base_alloc.h"
```

Data Structures

- class [PVLoggerLayout](#)
- class [PVLoggerFilter](#)
- class [AllPassFilter](#)
- class [PVLoggerAppender](#)

Variables

- const [PVLoggerFilter::filter_status_type PVLOGGER_FILTER_ACCEPT = 1](#)
- const [PVLoggerFilter::filter_status_type PVLOGGER_FILTER_REJECT = 2](#)
- const [PVLoggerFilter::filter_status_type PVLOGGER_FILTER_NEUTRAL = 3](#)

8.159.1 Variable Documentation

8.159.1.1 const PVLoggerFilter::filter_status_type PVLOGGER_FILTER_ACCEPT = 1

Referenced by AllPassFilter::FilterOpaqueMessage(), and AllPassFilter::FilterString().

8.159.1.2 const PVLoggerFilter::filter_status_type PVLOGGER_FILTER_NEUTRAL = 3

8.159.1.3 const PVLoggerFilter::filter_status_type PVLOGGER_FILTER_REJECT = 2

8.160 pvlogger_c.h File Reference

This file contains basic logger interfaces for common use across platforms. C-callable version.

```
#include "osclconfig.h"
```

Defines

- #define PVLOGGER_C_INST_LEVEL 5
- #define PVLOGMSG_C_INST_REL 0
- #define PVLOGMSG_C_INST_PROF 1
- #define PVLOGMSG_C_INST_HLDBG 2
- #define PVLOGMSG_C_INST_MLDBG 3
- #define PVLOGMSG_C_INST_LLDBG 4
- #define PVLOGMSG_C_EMERG 0
- #define PVLOGMSG_C_ALERT 1
- #define PVLOGMSG_C_CRIT 2
- #define PVLOGMSG_C_ERR 3
- #define PVLOGMSG_C_WARNING 4
- #define PVLOGMSG_C_NOTICE 5
- #define PVLOGMSG_C_INFO 6
- #define PVLOGMSG_C_STACK_TRACE 7
- #define PVLOGMSG_C_STACK_DEBUG 8

Functions

- OSCL_IMPORT_REF void * [pvLogger_GetLoggerObject](#) (const char *tag)
- OSCL_IMPORT_REF int [pvLogger_IsActive](#) (void *logger, int log_level)
- OSCL_IMPORT_REF void [pvLogger_LogMsgString](#) (void *logger, int msgID, const char *fmt,...)

8.160.1 Detailed Description

This file contains basic logger interfaces for common use across platforms. C-callable version. This is the main entry point header file for the logger library. It should be the only one users directly include.

8.160.2 Define Documentation

- 8.160.2.1 `#define PVLOGGER_C_INST_LEVEL 5`
- 8.160.2.2 `#define PVLOGMSG_C_ALERT 1`
- 8.160.2.3 `#define PVLOGMSG_C_CRIT 2`
- 8.160.2.4 `#define PVLOGMSG_C_EMERG 0`
- 8.160.2.5 `#define PVLOGMSG_C_ERR 3`
- 8.160.2.6 `#define PVLOGMSG_C_INFO 6`
- 8.160.2.7 `#define PVLOGMSG_C_INST_HLDBG 2`
- 8.160.2.8 `#define PVLOGMSG_C_INST_LLDBG 4`
- 8.160.2.9 `#define PVLOGMSG_C_INST_MLDBG 3`
- 8.160.2.10 `#define PVLOGMSG_C_INST_PROF 1`
- 8.160.2.11 `#define PVLOGMSG_C_INST_REL 0`
- 8.160.2.12 `#define PVLOGMSG_C_NOTICE 5`
- 8.160.2.13 `#define PVLOGMSG_C_STACK_DEBUG 8`
- 8.160.2.14 `#define PVLOGMSG_C_STACK_TRACE 7`
- 8.160.2.15 `#define PVLOGMSG_C_WARNING 4`

8.160.3 Function Documentation

- 8.160.3.1 `OSCL_IMPORT_REF void* pvLogger_GetLoggerObject (const char * tag)`
- 8.160.3.2 `OSCL_IMPORT_REF int pvLogger_IsActive (void * logger, int log_level)`
- 8.160.3.3 `OSCL_IMPORT_REF void pvLogger_LogMsgString (void * logger, int msgID, const char * fmt, ...)`

8.161 pvlogger_registry.h File Reference

```
#include "pvlogger.h"
#include "oscl_tagtree.h"
#include "oscl_base.h"
#include "oscl_map.h"
#include "oscl_vector.h"
#include "oscl_stdstring.h"
#include "osclconfig_compiler_warnings.h"
```

Data Structures

- class [PVLoggerRegistry](#)

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