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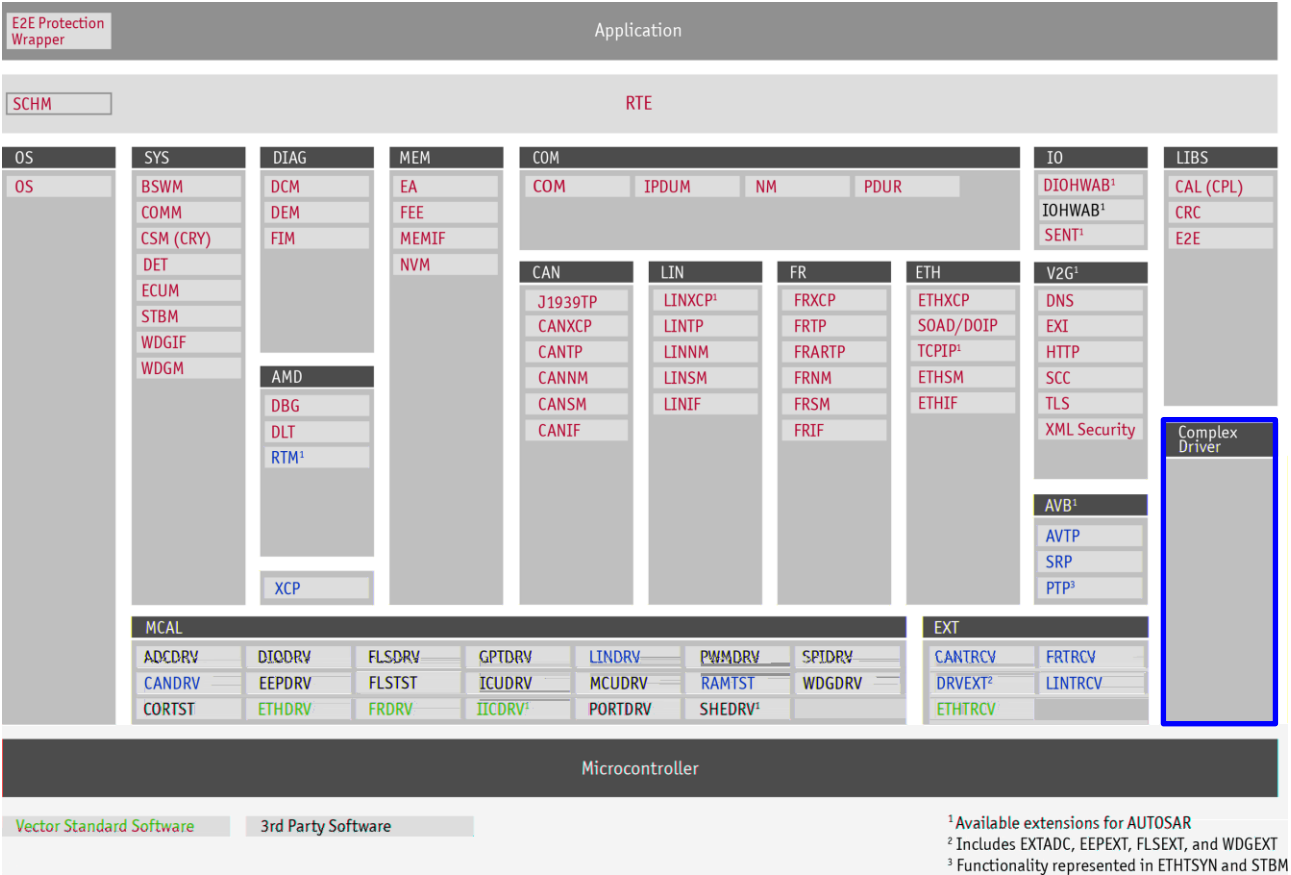
[illegible]

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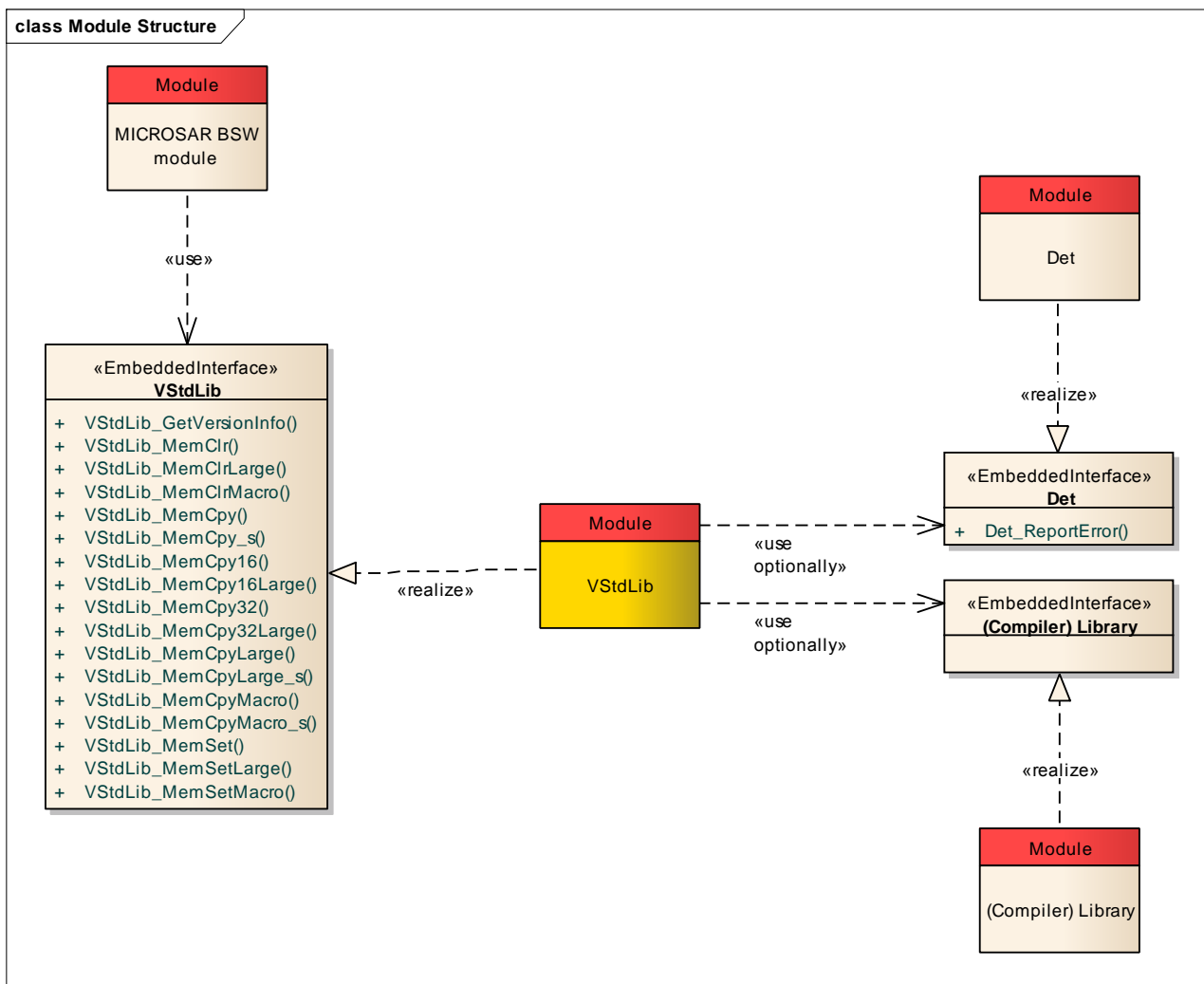
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	VSTDLIB_VENDOR_ID	-
	VSTDLIB_MODULE_ID	

2.1 Architecture Overview



## class Module Structure



## 3

### 3.1 Features

### 3.2 Initialization and Main Functions

### 3.3 Error Handling

#### 3.3.1 Development Error Reporting

```
Det_ReportError()
-          VSTDLIB_DEV_ERROR_REPORT == STD_ON
```

```
Det_ReportError()
```

VSTDLIB_SID_MEM_SET (0x00)	VStdLib_MemClr(), VStdLib_MemSet()
VSTDLIB_SID_MEM_COPY (0x01)	VStdLib_MemCpy()
VSTDLIB_SID_MEM_COPY_16 (0x02)	VStdLib_MemCpy16()
VSTDLIB_SID_MEM_COPY_32 (0x03)	VStdLib_MemCpy32()
VSTDLIB_SID_MEM_COPY_S (0x04)	VStdLib_MemCpy_s()
VSTDLIB_SID_GET_VERSION_INFO (0x05)	VStdLib_GetVersionInfo()

VSTDLIB_E_PARAM_POINTER (0x01)	API service used with NULL pointer parameter.
VSTDLIB_E_PARAM_SIZE (0x02)	VStdLib_MemCpy_s() used with invalid destination size parameter.

#### 3.3.2 Production Code Error Reporting

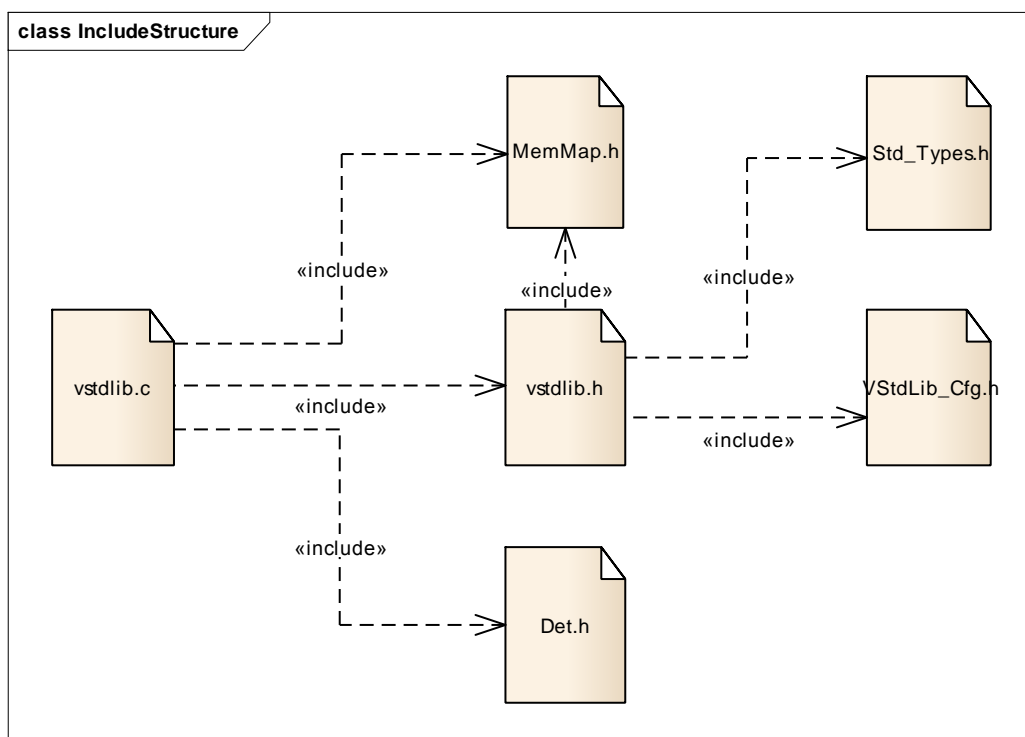


## 4

## 4.1 Scope of Delivery



## 4.2 Include Structure



## 4.3 Critical Sections



## 4.5 Integration Hints

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```
VSTDLIB_USE_LIBRARY_FUNCTIONS
VSTDLIB_RUNTIME_OPTIMIZATION
VSTDLIB_SUPPORT_LARGE_DATA STD_OFF
```

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5.1 Type Definitions

VStdLib\_CntType

VSTDLIB\_SUPPORT\_LARGE\_DATASTD\_ON

STD\_OFF

5.2 Services provided by VStdLib

5.2.1 VStdLib\_GetVersionInfo

void (Std\_VersionInfoType \*versioninfo)

VSTDLIB\_VERSION\_INFO\_API == STD\_ON

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### 5.2.2 VStdLib\_MemClr

```
void (void *pDst, VStdLib_CntType nCnt)
```

```
== STD_ON VSTDLIB_USE_LIBRARY_FUNCTIONS  
VSTDLIB_SUPPORT_LARGE_DATA == STD_ON
```

```
>  
>  
>
```

### 5.2.3 VStdLib\_MemClrMacro

```
void (AnyPtrType *pDst, VStdLib_CntType nCnt)
```

```
>  
>  
>
```



### 5.2.5 VStdLib\_MemSetMacro

```
void (AnyPtrType *pDst, AnyIntType nPattern,
VStdLib_CntType nCnt)
```

✓  
✓  
✓



## 5.2.6 VStdLib\_MemCpy

```
void (void *pDst, const void *pSrc, VStdLib_CntType nCnt)
```

```
== STD_ON
```

```
VSTDLIB_USE_LIBRARY_FUNCTIONS
```

```
VSTDLIB_SUPPORT_LARGE_DATA == STD_ON
```

```
>  
>  
>
```

### 5.2.7 VStdLib\_MemCpy16

```
void (uint16 *pDst, const uint16 *pSrc, VStdLib_CntType nCnt)
```

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VSTDLIB\_USE\_LIBRARY\_FUNCTIONS

== STD ON

```
VSTDLIB_SUPPORT_LARGE_DATA == STD_ON
```

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### 5.2.8 VStdLib\_MemCpy32

```
void (uint32 *pDst, const uint32 *pSrc, VStdLib_CntType nCnt)
```

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VSTDLIB\_USE\_LIBRARY\_FUNCTIONS

```
== STD_ON
```

```
VSTDLIB_SUPPORT_LARGE_DATA == STD_ON
```

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## 5.2.9 VStdLib\_MemCpy\_s

```
void          (void *pDst, VStdLib_CntType nDstSize, const void *pSrc,  
VStdLib_CntType nCnt)
```

```
VSTDLIB_SUPPORT_LARGE_DATA == STD_ON
```

```
>  
>  
>
```

### 5.2.10 VStdLib\_MemCpyMacro

```
void (AnyPtrType *pDst, AnyPtrType *pSrc, VStdLib_CntType
nCnt)
```

✓  
✓  
✓

### 5.2.11 VStdLib\_MemCpyMacro\_s

```
void (AnyPtrType *pDst, VStdLib_CntType nDstSize,
AnyPtrType *pSrc, VStdLib_CntType nCnt)
```

✓  
✓  
✓

### 5.3 Services used by VStdLib

	Det_ReportError()

## 6

## 6.1 Configuration Variants

> VARIANT-PRE-COMPILE

## 6.2 Manual Configuration in Header File

## 6.2.1 General configuration

VSTDLIB_USE_LIBRARY_FUNCTIONS		STD_ON  STD_OFF
VSTDLIB_RUNTIME_OPTIMIZATION		STD_ON  STD_OFF  VSTDLIB_USE_LIBRARY_FUNCTIONS == STD_OFF
VSTDLIB_USE_JUMPTABLES		STD_ON  STD_OFF  VSTDLIB_USE_LIBRARY_FUNCTIONS == STD_OFF VSTDLIB_RUNTIME_OPTIMIZATION == STD_ON
VSTDLIB_DEV_ERROR_DETECT		STD_ON  NULL_PTR

VSTDLIB_DEV_ERROR_REPORT		<pre> STD_ON VSTDLIB_DEV_ERROR_ DETECT == STD_ON Det_ReportError() </pre>
VSTDLIB_VERSION_INFO_API		<pre> STD_ON VStdLib_GetVersionInfo() </pre>
VSTDLIB_DUMMY_STATEMENT(v)		

### 6.2.2 Additional configuration when using library functions

If `VSTDLIB_USE_LIBRARY_FUNCTIONS == STD_ON` it is necessary to specify library functions to be used for the memory manipulations. See the corresponding section in



If the external functionality is not able to handle more than 65535 bytes it is necessary to define `VSTDLIB_SUPPORT_LARGE_DATA` to `STD_OFF`.

It has to be ensured that the specified functions are able to copy from and to all memory locations independently of the pointer length. The specified functions must behave synchronously.



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