

VStdLib

S Q

U R Ka

U 0-5-1

	O	L	S	U
R	Q			

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2 Introduction

S a UR Ka
 -S UR Ka
 a
 S UR Ka a a U
 a a UR Ka -R
 S UR Ka -S a
 -S UR Ka a U
 a
 S UR Ka -S
 B Ma B M Q H QH-S QH QH-4
 a a B M -B M
 B F a H C a B F a H Q (-S UR Ka
 OH B F a H C a
 B F a H Q a -O B Ma B M
 a B M -

3 Functional Description

S UR Ka a U

> E

> E

H B M
0-4 L H QNR Q - E - S
a a OH UR Ka -

API Function	Description
UR L R	H Q L -
UR L M R	H Q L -
UR L E R	H Q L -
UR L B	B Q L -
UR L M B	B Q L -
UR L E B	B Q L -
UR L B Q S Q	B Q L Q L -
UR L B Q S Q	B QNL Q L -
UR L B Q S M Q	B Q L Q L -
UR L B Q S M Q	B QNL Q L -
UR L B Q S E Q	B Q L Q L -
UR L B Q S E Q	B QNL Q L -
UR L B 05Q S Q	B Q L Q L -S 05 a -
UR L B 05Q S E Q	B Q L Q L -S 05 a -
UR L B 05E Q S Q	B Q L Q L -S 05 a -
UR L B 21Q S Q	B Q L Q L -S 21 a -
UR L B 21Q S E Q	B Q L Q L -S 21 a -
UR L B 21E Q S Q	B Q L Q L -S 21 a -



Info

S OH a a

OH -S

S Q L QNL Q L QNL

a -S -

-



Caution

N a (

-S

4 Integration

S UR Ka a UR Ka a - U
 UR Ka a -B 5 a a - S
 a a -
 H UR Ka a- U

4.1 CANbedded Particularities

H UR Ka B Ma UR Ka
 a B M KM -

4.2 MICROSAR Particularities

H L B QNR Q UR Ka a
 -S
 a L B QNR Q OH UR Ka
 UR Ka- -S

```
void InitRoutine(void)
{
    ...

    /* Initialize the VstLib */
    VStdInitPowerOn();

    /* Perform initialization of the other software components */
    ...
}
```

4.3 Mixing VStdLib Versions

H UR Ka U a
 B M UR Ka
 U -H a

5 Configuration

H S B M QH-4 L B QNR Q - S UR Ka a (- H FDM - S FDM -

[- VStdLib	
[- Synch Mechanism	
Lock Mechanism	Default
Lock Level	Global
Nested Disable	x
Nested Restore	x
[- Debug Support	
Assertions	<input type="checkbox"/> *

E 4-0 UR Ka FDM

S UR Ka B MF -

Synch Mechanism	
Lock Mechanism	Default
Lock Level	Default OSEK User Defined
Nested Disable	
Nested Restore	
Debug Support	
<input checked="" type="checkbox"/> Assertions	

E 4-1 UR Ka B MF

S a a UR Ka -

Configuration Item	Description
K L	N a UR Ka-S UR Ka 9C K K NRD T - S NRD NRD NR TSNR QNR-
K K	HK K K L B Ma -S UR Ka -G
M C a	H T K L -
M Q	H T K L -
	H a a UR Ka -

H K L T a -
S a 9

void UserFunction(void)

S M C a B HE B a
H K K { a a -
S M Q M C a -

	Caution S a . a a a . O N - N
--	--

S H B T a B M

5.1 Usage with OSEK OS

HNRD NR UR Ka
NRD NR-R NRD NR
NR UR Ka -S
a a -S a - -H NRD NR (-
N -
NRD NR -
H UR Ka a NRD NR
NRD 9
> R H
> Q H

5.2 Usage with QNX OS

H UR Ka PMWNR
a - C B M
HRQ H S (

H B M a a UR Ka a PV a -
O E 4-2 -

- VStdLib	
- Synch Mechanism	
Lock Mechanism	User Defined
Lock Level	Global
Nested Disable	VStdQnxNestedDisable
Nested Restore	VStdQnxNestedRestore

E 4-2 K B M

T UR Ka
PMW (-S L V a
E 4-2 -PV L V a
-

H B M a . UR Ka a a B M -L -H
C E 4-3-

- VStdLib	
- Synch Mechanism	
Lock Mechanism	Default
Lock Level	Global
Nested Disable	
Nested Restore	

E 4-3 B UR Ka B M

6 API Description

S a OH UR Ka-

6.1 Initialization

VStdInitPowerOn

Prototype	
void VStdInitPowerOn (void)	
Parameter	
M	-
Return code	
M	-
Functional Description	
H UR Ka -	
Particularities and Limitations	
<div>> S a O N -S a -</div> <div>> S U - a</div> <div>UR H O N a UR Ka -H 9S -C</div> <div>NR U (- a B M KM -</div> <div>> H L B QNR Q a L B QNR Q OH -</div>	
B	
> S	

6.2 Interrupt Control

VStdSuspendAllInterrupts

Prototype	
void VStdSuspendAllInterrupts (void)	
Parameter	
M	-
Return code	
M	-
Functional Description	
C a	-S -
S	a
Particularities and Limitations	
<div>> S a T H B</div> <div>(-</div> <div>> D UR R H</div> <div>UR Q H -</div> <div>> HT H B a</div> <div>-M -S</div> <div>a -</div> <div>> C NR a -</div> <div>> C a - -</div> <div>(-</div>	
B	
> M	

VStdResumeAllInterrupts

Prototype	
void VStdResumeAllInterrupts (void)	
Parameter	
M	-
Return code	
M	-
Functional Description	
Q	OH UR R H -

Particularities and Limitations									
> S		a				UR	R	H	-
> HT	H	B							a
				-M			-S		
			a	-					
> C			NR			a		-	
> C						a		- -	
	(-								
B									
> M									

6.3 Memory Functions

S a -

VStdMemSet

Prototype									
void VStdMemSet (void *pDest, vuint8 nPattern, vuint16 nCnt)									
Parameter									
C		S				a			
			-						
O		S		a		B	A		C -
B		S	a	A	a			-	
Return code									
M		-							
Functional Description									
S		B	A			C		O	-
Particularities and Limitations									
> S								(- C	
			a						
B									
> M									

VStdMemSet

Prototype	
void VStdMemClr (void *pDest, vuint16 nCnt)	
Parameter	
C	S a -
B	S a A a -
Return code	
M	-
Functional Description	
S	B A C -
Particularities and Limitations	
> S	(- C
	a
B	
> M	

VStdMemSet

Prototype	
void VStdMemCpy (void *pDest, void *pSrc, vuint16 nCnt)	
Parameter	
C	S -
R	S -
B	S a A a R
	C -
Return code	
M	-
Functional Description	
S	a B A R
	C -
Particularities and Limitations	
> S	-S
	-
> S	
> S	a R C -
B	
> M	

6.4 Callback Functions

AppIVStdFatalError

Prototype		
void AppIVStdFatalError (vuint8 nErrorNumber)		
Parameter		
D M a	S a	-
Return code		
M	-	
Functional Description		
S a UR Ka		-
Particularities and Limitations		
> S a a		-
> H -H a		-
B		
> M		

7 Assertions

H a UR Ka
- H
S a a UR E D -
a -S
a - S
a a -

Errorcode	Description
UR D H C a S N	S UR Ka 016-
UR D H Q S N	S a UR Ka a
UR D L B H O	UR Ka
UR D L B H O	UR Ka
UR D L R H O	UR Ka
UR D T K R	a UR Ka -S -



Caution

M a UR Ka -H a UR Ka



Note

M -

8 Limitations

8.1 Interrupt control does not work correctly in user mode

E

a - - H K H D a (- -
(-

H

- - - OH (
-

9 Glossary and Abbreviations

9.1 Glossary

Term	Description
T	a -H a -

9.2 Abbreviations

Abbreviation	Description
QH	Q B Ma B M -S Q H 0-4 QH-4 B M -E B M UR Ka -
UR Ka	U R Ka

10 Contact

U a

M
O
C
R
S

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