

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

**Legend:**  
**Black** is for seldom used functions  
**Orange** is for CREATE functions  
**Red** is for DELETE functions  
**Blue** is for commonly used functions  
**Green** is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Semaphores (OS_SEM.C)					
INT16U	OSSemAccept	(OS_EVENT	*pevent);		
OS_EVENT	*OSSemCreate	(INT16U	cnt);	OS_DEL_NO_PEND	
OS_EVENT	*OSSemDel	(OS_EVENT	*pevent,	OS_DEL_ALWAYS	
		INT8U	opt,		
		INT8U	*perr);		
void	OSSemPend	(OS_EVENT	*pevent,		
		INT32U	timeout,		
		INT8U	*err);		
INT8U	OSSemPendAbort	(OS_EVENT	*pevent,	OS_PEND_OPT_NONE	
		INT8U	opt,	OS_PEND_OPT_BROADCAST	
		INT8U	*perr);		
INT8U	OSSemPost	(OS_EVENT	*pevent);		
INT8U	OSSemQuery	(OS_EVENT	*pevent,		OS_SEM_DATA:
		OS_SEM_DATA	*p_sem_data);		INT16U OSCnt
					#if OS_LOWEST_PRIO <= 63
					INT8U OSEventGrp
					INT8U OSEventTbl[]
					#else
					INT16U OSEventGrp
					INT16U OSEventTbl[]
					#endif
void	OSSemSet	(OS_EVENT	*pevent,		
		INT16U	cnt,		
		INT8U	*perr);		

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

**Legend:**  
**Black** is for seldom used functions  
**Orange** is for CREATE functions  
**Red** is for DELETE functions  
**Blue** is for commonly used functions  
**Green** is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Mutual Exclusion Semaphores (OS_MUTEX.C)					
BOOLEAN	OSMutexAccept	(OS_EVENT INT8U	*pevent, *perr);		
OS_EVENT	*OSMutexCreate	(INT8U INT8U	prio, *perr);		
OS_EVENT	*OSMutexDel	(OS_EVENT INT8U INT8U	*pevent, opt, *perr);	OS_DEL_NO_PEND OS_DEL_ALWAYS	
void	OSMutexPend	(OS_EVENT INT32U INT8U	*pevent, timeout, *perr);		
INT8U	OSMutexPost	(OS_EVENT	*pevent);		
INT8U	OSMutexQuery	(OS_EVENT OS_MUTEX_DATA	*pevent, *p_mutex_data);		OS_MUTEX_DATA: BOOLEAN OSValue INT8U OSOwnerPrio INT8U OSMutexPIP #if OS_LOWEST_PRIO <= 63 INT8U OSEventGrp INT8U OSEventTbl[] #else INT16U OSEventGrp INT16U OSEventTbl[] #endif

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

### Legend:

**Black** is for seldom used functions  
**Orange** is for CREATE functions  
**Red** is for DELETE functions  
**Blue** is for commonly used functions  
**Green** is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Event Flags (OS_FLAG.C)					
OS_FLAGS	OSFlagAccept	(OS_FLAG_GRP OS_FLAGS INT8U INT8U	*pgrp, flags, wait_type, *perr);		
OS_FLAG_GRP	*OSFlagCreate	(OS_FLAGS INT8U	flags, *perr);		
OS_FLAG_GRP	*OSFlagDel	(OS_FLAG_GRP INT8U INT8U	*pgrp, opt, *perr);	OS_DEL_NO_PEND OS_DEL_ALWAYS	
INT8U	OSFlagNameGet	(OS_FLAG_GRP INT8U INT8U	*pgrp, *pname, *perr);		
void	OSFlagNameSet	(OS_FLAG_GRP INT8U INT8U	*pgrp, *pname, *perr);		
OS_FLAGS	OSFlagPend	(OS_FLAG_GRP OS_FLAGS INT8U INT16U INT8U	*pgrp, flags, wait_type, timeout, *perr);		wait_type: OS_FLAG_WAIT_CLR_ALL OS_FLAG_WAIT_CLR_AND OS_FLAG_WAIT_CLR_ANY OS_FLAG_WAIT_CLR_OR OS_FLAG_WAIT_SET_ALL OS_FLAG_WAIT_SET_AND OS_FLAG_WAIT_SET_ANY OS_FLAG_WAIT_SET_OR + OS_FLAG_CONSUME
OS_FLAGS	OSFlagPendGetFlagsRdy	(void);			
OS_FLAGS	OSFlagPost	(OS_FLAG_GRP OS_FLAGS INT8U INT8U	*pgrp, flags, opt, *perr);	OS_FLAG_CLR OS_FLAG_SET	
OS_FLAGS	OSFlagQuery	(OS_FLAG_GRP INT8U	*pgrp, *perr);		

# µC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

<b>Legend:</b> Black is for seldom used functions Orange is for CREATE functions Red is for DELETE functions Blue is for commonly used functions Green is for comments		Micrium 949 Crestview Circle Weston, FL 33327 USA <a href="http://www.Micrium.com">www.Micrium.com</a>	
		OPTIONS (opt)	Miscellaneous
<b>Message Mailboxes (OS_MBOX.C)</b>			
void	*OSMboxAccept	(OS_EVENT *pevent);	
OS_EVENT	*OSMboxCreate	(void *msg);	
OS_EVENT	*OSMboxDel	(OS_EVENT *pevent, INT8U opt, INT8U *perr);	
void	*OSMboxPend	(OS_EVENT *pevent, INT32U timeout, INT8U *perr);	OS_DEL_NO_PEND OS_DEL_ALWAYS
INT8U	OSMboxPendAbort	(OS_EVENT *pevent, INT8U opt, INT8U *perr);	OS_PEND_OPT_NONE OS_PEND_OPT_BROADCAST
INT8U	OSMboxPost	(OS_EVENT *pevent, void *pmsg);	
INT8U	OSMboxPostOpt	(OS_EVENT *pevent, void *pmsg, INT8U opt);	OS_POST_OPT_NONE OS_POST_OPT_BROADCAST OS_POST_OPT_NO_SCHED
INT8U	OSMboxQuery	(OS_EVENT *pevent, OS_MBOX_DATA *p_mbox_data);	OS_MBOX_DATA: void *msg #if OS_LOWEST_PRIO <= 63 INT8U OSEventGrp INT8U OSEventTbl[] #else INT16U OSEventGrp INT16U OSEventTbl[] #endif

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

### Legend:

Black is for seldom used functions  
Orange is for CREATE functions  
Red is for DELETE functions  
Blue is for commonly used functions  
Green is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Message Queues (OS_Q.C)					
void	*OSQAccept	(OS_EVENT INT8U	*pevent, *perr);		
OS_EVENT	*OSQCreate	(void INT16U	**start, size);		
OS_EVENT	*OSQDel	(OS_EVENT INT8U INT8U	*pevent, opt, *perr);	OS_DEL_NO_PEND OS_DEL_ALWAYS	
INT8U	OSQFlush	(OS_EVENT	*pevent);		
void	*OSQPend	(OS_EVENT INT32U INT8U	*pevent, timeout, *perr);		
INT8U	OSQPendAbort	(OS_EVENT INT8U INT8U	*pevent, opt, *perr);	OS_PEND_OPT_NONE OS_PEND_OPT_BROADCAST	
INT8U	OSQPost	(OS_EVENT void	*pevent, *pmsg);		
INT8U	OSQPostFront	(OS_EVENT void	*pevent, *pmsg);		
INT8U	OSQPostOpt	(OS_EVENT void INT8U	*pevent, *pmsg, opt);	OS_POST_OPT_NONE OS_POST_OPT_BROADCAST OS_POST_OPT_FRONT OS_POST_OPT_NO_SCHED	
INT8U	OSQQuery	(OS_EVENT OS_Q_DATA	*pevent, *p_q_data);		OS_Q_DATA: void *OSMsg INT16U OSNMsgs INT16U OSQSize #if OS_LOWEST_PRIO <= 63 INT8U OSEventGrp INT8U OSEventTbl[] #else INT16U OSEventGrp INT16U OSEventTbl[] #endif

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

Legend:  
Black is for seldom used functions  
Orange is for CREATE functions  
Red is for DELETE functions  
Blue is for commonly used functions  
Green is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Memory Management (OS_MEM.C)					
OS_MEM	*OSMemCreate	(void INT32U INT32U INT8U	*addr, nblks, blksize, *perr);		
void	*OSMemGet	(OS_MEM INT8U	*pmem, *perr);		
INT8U	OSMemNameGet	(OS_MEM INT8U INT8U	*pmem, *pname, *perr);		
void	OSMemNameSet	(OS_MEM INT8U INT8U	*pmem, *pname, *perr);		
INT8U	OSMemPut	(OS_MEM void	*pmem, *pblk);		
INT8U	OSMemQuery	(OS_MEM OS_MEM_DATA	*pmem, *p_mem_data);		OS_MEM_DATA: void *OSAddr void *OSFreeList INT32U OSBlkSize INT32U OSNblks INT32U OSNFree INT32U OSNUsed

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

Legend:  
Black is for seldom used functions  
Orange is for CREATE functions  
Red is for DELETE functions  
Blue is for commonly used functions  
Green is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
www.Micrium.com

				OPTIONS (opt)	Miscellaneous
Task Management (OS_TASK.C)					
INT8U	OSTaskChangePrio	(INT8U INT8U	oldprio, newprio);		
INT8U	OSTaskCreate	(void void OS_STK INT8U	(*task)(void *p_arg), *p_arg, *ptos, prio);		
INT8U	OSTaskCreateExt	(void void OS_STK INT8U INT16U OS_STK INT32U void INT16U	(*task)(void *p_arg), *p_arg, *ptos, prio, id, *pbos, stk_size, *pext, opt);	OS_TASK_OPT_NONE OS_TASK_OPT_STK_CHK OS_TASK_OPT_STK_CLR OS_TASK_OPT_SAVE_FP	
INT8U	OSTaskDel	(INT8U	prio);		
INT8U	OSTaskDelReq	(INT8U	prio);		
INT8U	OSTaskNameGet	(INT8U INT8U INT8U	prio, *pname, *perr);		
void	OSTaskNameSet	(INT8U INT8U INT8U	prio, *pname, *perr);		
INT8U	OSTaskResume	(INT8U	prio);		
INT8U	OSTaskSuspend	(INT8U	prio);		
INT8U	OSTaskStkChk	(INT8U OS_STK_DATA	prio, *p_stk_data);		OS_STK_DATA: INT32U .OSFree INT32U .OSUsed
INT8U	OSTaskQuery	(INT8U OS_TCB	prio, *p_task_data);		

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

**Legend:**  
**Black** is for seldom used functions  
**Orange** is for CREATE functions  
**Red** is for DELETE functions  
**Blue** is for commonly used functions  
**Green** is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Time Management (OS_TIME.C)					
void	OSTimeDly	(INT32U	ticks);		
INT8U	OSTimeDlyHMSM	(INT8U	hours,		
		INT8U	minutes,		
		INT8U	seconds,		
		INT16U	milli);		
INT8U	OSTimeDlyResume	(INT8U	prio);		
INT32U	OSTimeGet	(void);			
void	OSTimeSet	(INT32U	ticks);		
void	OSTimeTick	(void);			



# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

Legend:  
Black is for seldom used functions  
Orange is for CREATE functions  
Red is for DELETE functions  
Blue is for commonly used functions  
Green is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

			OPTIONS (opt)	Miscellaneous
Timer Management (OS_TMR.C)				
OS_TMR	*OSTmrCreate	(INT32U dly, INT32U period, INT8U opt, OS_TMR_CALLBACK callback, void *callback_arg, INT8U *pname, INT8U *perr);		
BOOLEAN	OSTmrDel	(OS_TMR *ptmr, INT8U *perr);		
INT8U	OSTmrNameGet	(OS_TMR *ptmr, INT8U *pdest, INT8U *perr);		
INT32U	OSTmrRemainGet	(OS_TMR *ptmr, INT8U *perr);		
INT8U	OSTmrStateGet	(OS_TMR *ptmr, INT8U *perr);		
BOOLEAN	OSTmrStart	(OS_TMR *ptmr, INT8U *perr);	OS_TMR_OPT_PERIODIC OS_TMR_OPT_ONE_SHOT OS_TMR_OPT_NONE OS_TMR_OPT_CALLBACK OS_TMR_OPT_CALLBACK_ARG	
void	OSTmrStop	(OS_TMR *ptmr, INT8U opt, void *callback_arg, INT8U *perr);		
void	OSTmrSignal	(void);		

# μC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

Legend:  
Black is for seldom used functions  
Orange is for CREATE functions  
Red is for DELETE functions  
Blue is for commonly used functions  
Green is for comments

Micrium  
949 Crestview Circle  
Weston, FL 33327  
USA  
[www.Micrium.com](http://www.Micrium.com)

				OPTIONS (opt)	Miscellaneous
Miscellaneous (OS_CORE.C)					
INT8U	OSEventNameGet	(OS_EVENT INT8U INT8U	*pevent, *pname, *perr);		
void	OSEventNameSet	(OS_EVENT INT8U INT8U	*pevent, *pname, *perr);		
void	OSEventPendMulti	(OS_EVENT OS_EVENT void INT16U INT8U	**pevents_pend, **pevents_rdy, **pmsgs_rdy, timeout, *perr);		
void	OSInit	(void);			
void	OSIntEnter	(void);			
void	OSIntExit	(void);			
void	OSSchedLock	(void);			
void	OSSchedUnlock	(void);			
void	OSStart	(void);			
void	OSStatInit	(void);			
INT16U	OSVersion	(void);			

# µC/OS-II, The Real-Time Kernel

## V2.88 Quick Reference Chart

<b>Legend:</b> Black is for seldom used functions Orange is for CREATE functions Red is for DELETE functions Blue is for commonly used functions Green is for comments			Micrium 949 Crestview Circle Weston, FL 33327 USA <a href="http://www.Micrium.com">www.Micrium.com</a>	
			OPTIONS (opt)	Miscellaneous
Port Functions (OS_CPU_A.ASM)				
void	OSCtxSw	(void);		
void	OSIntCtxSw	(void);		
void	OSStartHighRdy	(void);		
Port Functions (OS_CPU_C.C)				
void	OSInitHookBegin	(void);		
void	OSInitHookEnd	(void);		
void	OSTaskCreateHook	(OS_TCB *ptcb);		
void	OSTaskDelHook	(OS_TCB *ptcb);		
void	OSTaskIdleHook	(void);		
void	OSTaskStatHook	(void);		
OS_STK	*OSTaskStkInit	(void (*task)(void *p_arg), void *p_arg, OS_STK *ptos, INT16U opt);		
void	OSTaskSwHook	(void);		
void	OSTCBInitHook	(OS_TCB *ptcb);		
void	OSTimeTickHook	(void);		