RTEMS POSIX 1003.1 Compliance Guide

Release 6.2-rc3 (10th October 2025)

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The RTEMS Project is hosted at https://www.rtems.org. Any inquiries concerning RTEMS, its related support components, or its documentation should be directed to the RTEMS Project community.

RTEMS Online Resources

Home	https://www.rtems.org
Documentation	https://docs.rtems.org
Mailing Lists	https://lists.rtems.org
Bug Reporting	https://gitlab.rtems.org
Git Repositories	https://gitlab.rtems.org
Developers	https://gitlab.rtems.org

CHAPTER

ONE

PREFACE

RTEMS supports a variety of POSIX and BSD features including some POSIX methods that are now deemed obsolete and some methods for compatibility with GNU/Linux and FreeBSD. There are multiple POSIX standard versions as well as multiple efforts to tailor (e.g. profile) POSIX for embedded environments. They range in size from less than 200 required capabilities to the full POSIX standard which has over 1200 required capabilities. This document reports on the alignment of RTEMS with various standard versions and defined profiles.

RTEMS supports a number of POSIX process, user, and group oriented routines in what is referred to as a "SUSP" (Single-User, Single Process) manner. RTEMS supports a single process, multithreaded POSIX environment. In a pure world, there would be no reason to even include routines like `getpid()` when there can only be one process. But providing routines like `getpid()` and making them work in a sensible fashion for an embedded environment while not returning `ENOSYS` (for not implemented) makes it significantly easier to port code from a UNIX environment without modifying it.

In general, adding missing methods is always an open project for a volunteer. If considering addressing missing methods, please discuss this on mailing list. Some are properly implemented in the Newlib C Standard Library used by RTEMS. Others may require target architecture specific implementations. Still others may be impossible to implement without multiple processes or can only be implemented in a restricted fashion.

Missing methods required by the C99 standard or FACE Technical Standard Edition 3.0 General Purpose Profile are good candidates to add. Proposals to add missing methods from the C11 standard should be reviewed by RTEMS core developers to ensure the effort is well spent. There are rumors that some optional methods that are not being widely implemented will be removed in a future versino of the C Programming Language standard.

The next chapter in this document describes each of the standards with which the RTEMS alignment is tracked. Each subsequent chapter in this document presents the alignment of RTEMS with a specific standard version or defined profile. Each section with a chapter details the alignment of a specific header file relative to the chapter's standard or profile. The implementation status of the items required by the standard are listed.

CHAPTER

TWO

STANDARDS

This chapter describes each of the standards which RTEMS tracks API alignment with. As a general rules, these standards are related to the POSIX or C programming language standards. Many are the result of domain specific efforts to define subsets or profiles or the full POSIX standard which are suitable for a specific domain. Each API set is considered a "profile" against which the full capability set of RTEMS is evaluated.

The RTEMS Complete Profile is the complete set of POSIX, BSD, and C programming language functions supported by RTEMS. This profile is independent of any standard and represents a union of multiple standards. For example, RTEMS supports BSD derived functions that are not in POSIX.

The IEEE Standard 1003.1 is the POSIX standard which is maintained by The Open Group. Specifically, IEEE Standard 1003.1-2003 is the 2003 edition of the POSIX standard which is referred to by The Open Group as Issue 6. IEEE Standard 1003.1-2008 is the 2003 Edition of the standard with two Technical Corrigenda applied. It does not have an issue number associated with it. IEEE Standard 1003.1-2017 is also known as Issue 7. Each edition of the POSIX standard tends to add some functions, deprecate some functions, and obsolete (e.g. remove) other functions.

API differences between Issue 5 and Issue 6 are documented at https://pubs.opengroup.org/onlinepubs/009695399/xrat/xsh_chap01.html. There is not a summary for the changes between Issue 6 as published and what was released as 1003.1-2008. However, there is a summary of API changes from Issue 6 to Issue 7 (POSIX 1003.1-2017) at https://pubs.opengroup.org/onlinepubs/9699919799/xrat/V4_xsh_chap01.html.

Issue 8 was published in June 2024. The HTML version is not yet available on the web. It did include a list of newly added functions and deprecated functions.

PSE51 through PSE54 are Open Group defined profiles of the 2003 edition of the POSIX standard. These profiles are:

- Profile 54 - Multipurpose
  - 1003.1-2003 Base Multi-process, Threads and File System
- Profile 53 - Dedicated
  - Multi-process, Threads and File System
- Profile 52 - Controller
  - Single Process, Threads, and File System
- Profile 51 - Minimal

  - Single Process, Threads, with No File System

The C99 Programming Language standard defines the Standard C Library. This library is largely included by reference in the POSIX standard.

The C11 Programming Language standard defines also defines an updated version of the Standard C Library. It deletes a few functions from the C99 version but adds many functions. A large portion of these functions are optional and not commonly implemented.

Similarly, the C17 Programming Language standard defines an updated version of the Standard C Library.

The Open Group FACE Consortium (https://www.opengroup.org/face) has defined four POSIX profiles targetting the avionics application domain. The FACE Technical Standard has been through multiple revisions and the POSIX API profiles are identical in Editions 1.0, 2.0, 2.1, and 2.1.1. In these editions, the profiles and the approximate number of APIs in each are as follows:

- Security - ~165 APIs, single process, no FILE *
- Safety Basic - ~250 APIs, single process, some FILE *
- Safety Extended - ~335 APIs, multi-process, more FILE *
- General Purpose - ~825 APIs, multi-process, much more

FACE Technical Standard, Edition 3.0 adds the requirement for an operating system to support `clock_nanosleep()` in all profiles and defines one additional subcommand for the `posix_devctl()` functions.

FACE Technical Standard, Edition 3.1 has a number of minor changes to the profiles. Most of these were to improve alignment with the Software Communications Architecture (SCA) profiles. Additionally, some inconsistencies in the profiles were noticed and addressed while doing the alignment review.

FACE Technical Standard, Edition 3.2 has a few minor changes to the profiles.

RTEMS provides all of the functions required by the FACE Safety BASE profile and all of the functions in the Safety Extended profile which do not require multiple processes. Similarly, RTEMS provides nearly all of the functions in the General Purpose profile which do not require multiple processes. Support for the functions defined in fenv.h is processor architecture dependent.

The Software Communications Architecture (SCA) specification targets the requirements for software-defined radios. This specification was originally developed in support of the Joint Tactical Radio System (JTRS) program in conjunction with the Object Management Group (OMG). This standard is now maintained by the Wireless Innovation Forum with support from the U.S. Navy Joint Tactical Network Center (JTNC). Some URLs of interest:

- SCA at Wireless Innovation Forum - http://www.wirelessinnovation.org/sca-based-standards-library
- JTRS - https://en.wikipedia.org/wiki/Joint_Tactical_Radio_System
- JTNC - http://www.public.navy.mil/jtnc/Pages/home.aspx

The SCA standard is hosted at the Wireless Innovation Forum with JTNC hosting supplemental information.

RTEMS includes all functions required by the SCA POSIX profiles.

CHAPTER

THREE

RTEMS COMPLETE PROFILE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

3.1 Summary

The follow table summarizes RTEMS supported methods for all tracked standards:

Supported	1063
ENOSYS	18
Not supported	192

3.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

3.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

3.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

3.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

3.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- _tolower()
- _toupper()
- isalnum()
- isalnum_l()
- isalpha()
- isalpha_l()
- isascii()
- isblank()
- isblank_l()
- iscntrl()
- iscntrl_l()
- isdigit()
- isdigit_l()
- isgraph()
- isgraph_l()
- islower()
- islower_l()
- isprint()
- isprint_l()
- ispunct()
- ispunct_l()
- isspace()
- isspace_l()
- isupper()
- isupper_l()
- isxdigit()
- isxdigit_l()
- toascii()
- tolower()
- tolower_l()
- toupper()
- toupper_l()

3.7 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

3.8 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- alphasort()
- closedir()
- fdopendir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()
- scandir()
- seekdir()
- telldir()

The following methods and variables in <dirent.h> are not supported:

- dirfd()

3.9 <dlfcn.h>

The following methods and variables in <dlfcn.h> are supported:

- dlclose()
- dlerror()
- dlopen()
- dlsym()

3.10 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

3.11 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

The following methods and variables in <fcntl.h> are not supported:

- openat()
- posix_fadvise()
- posix_fallocate()
- posix_openpt()

3.12 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

3.13 <fmtmsg.h>

The following methods and variables in <fmtmsg.h> are not supported:

- fmtmsg()

3.14 <fnmatch.h>

The following methods and variables in <fnmatch.h> are supported:

- fnmatch()

3.15 <ftw.h>

The following methods and variables in <ftw.h> are supported:

- ftw()
- nftw()

3.16 <glob.h>

The following methods and variables in <glob.h> are supported:

- glob()
- globfree()

3.17 <grp.h>

The following methods and variables in <grp.h> are supported:

- endgrent()
- getgrent()
- getgrgid()
- getgrgid_r()
- getgrnam()
- getgrnam_r()
- setgrent()

3.18 <iconv.h>

The following methods and variables in <iconv.h> are supported:

- iconv()
- iconv_close()
- iconv_open()

3.19 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

3.20 <langinfo.h>

The following methods and variables in <langinfo.h> are supported:

- nl_langinfo()
- nl_langinfo_l()

3.21 <libgen.h>

The following methods and variables in <libgen.h> are supported:

- basename()
- dirname()

3.22 <libintl.h>

The following methods and variables in <libintl.h> are supported:

- textdomain()

3.23 <locale.h>

The following methods and variables in <locale.h> are supported:

- duplocale()
- freelocale()
- localeconv()
- newlocale()
- setlocale()
- uselocale()

3.24 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalb()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()

- sqrt()
- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- j0()
- j1()
- jn()
- signbit()
- signgam
- y0()
- y1()
- yn()

3.25 <monetary.h>

The following methods and variables in <monetary.h> are not supported:

- strfmon()
- strfmon_l()

3.26 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

3.27 <ndbm.h>

The following methods and variables in <ndbm.h> are supported:

- dbm_clearerr()
- dbm_close()
- dbm_delete()
- dbm_error()
- dbm_fetch()
- dbm_firstkey()
- dbm_nextkey()
- dbm_open()
- dbm_store()

3.28 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

3.29 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostbyaddr()
- gethostbyname()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- h_errno
- sethostent()
- setnetent()
- setprotoent()
- setservent()

3.30 <nl_types.h>

The following methods and variables in <nl_types.h> are not supported:

- catclose()
- catgets()
- catopen()

3.31 <poll.h>

The following methods and variables in <poll.h> are supported:

- poll()

3.32 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_getpshared()
- pthread_barrierattr_init()
- pthread_barrierattr_setpshared()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()

- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()

- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_getpshared()
- pthread_rwlockattr_init()
- pthread_rwlockattr_setpshared()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_spin_destroy()
- pthread_spin_init()
- pthread_spin_lock()
- pthread_spin_trylock()
- pthread_spin_unlock()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

The following methods and variables in <pthread.h> are not supported:

- pthread_mutex_consistent()
- pthread_mutexattr_getrobust()
- pthread_mutexattr_setrobust()

3.33 <pwd.h>

The following methods and variables in <pwd.h> are supported:

- endpwent()
- getpwent()
- getpwnam()
- getpwnam_r()
- getpwuid()
- getpwuid_r()
- setpwent()

3.34 <regex.h>

The following methods and variables in <regex.h> are supported:

- regcomp()
- regerror()
- regexec()
- regfree()

3.35 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

3.36 <search.h>

The following methods and variables in <search.h> are supported:

- hcreate()
- hdestroy()
- hsearch()
- tdelete()
- tfind()
- tsearch()
- twalk()

The following methods and variables in <search.h> are not supported:

- insque()
- lfind()
- lsearch()
- remque()

3.37 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

3.38 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

The following methods and variables in <setjmp.h> are not supported:

- _longjmp()
- _setjmp()

3.39 <signal.h>

The following methods and variables in <signal.h> are supported:

- bsd_signal()
- kill()
- psignal()
- pthread_kill()
- pthread_sigmask()
- raise()
- sig2str()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

The following methods and variables in <signal.h> are not supported:

- killpg()
- psiginfo()
- sigaltstack()
- sighold()
- sigignore()
- siginterrupt()
- sigpause()
- sigrelse()
- sigset()

3.40 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

3.41 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

3.42 <stdatomic.h>

The following methods and variables in <stdatomic.h> are supported:

- ATOMIC_VAR_INIT()
- atomic_compare_exchange_strong()
- atomic_compare_exchange_strong_explicit()
- atomic_compare_exchange_weak()
- atomic_compare_exchange_weak_explicit()
- atomic_exchange()
- atomic_exchange_explicit()
- atomic_fetch_key()
- atomic_fetch_key_explicit()
- atomic_flag_clear()
- atomic_flag_clear_explicit()
- atomic_flag_test_and_set()
- atomic_flag_test_and_set_explicit()
- atomic_init()
- atomic_is_lock_free()
- atomic_load()
- atomic_load_explicit()
- atomic_signal_fence()
- atomic_store()
- atomic_store_explicit()
- atomic_thread_fence()

3.43 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

3.44 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

3.45 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- ctermid()
- dprintf()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fmemopen()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()

- getchar_unlocked()
- gets()
- open_memstream()
- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tempnam()
- tmpfile()
- tmpnam()
- ungetc()
- vdprintf()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

The following methods and variables in <stdio.h> are not supported:

- getdelim()
- getline()
- pclose()
- popen()
- renameat()

3.46 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- a64l()
- abort()
- abs()
- aligned_alloc()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- drand48()
- ecvt()
- erand48()
- exit()
- fcvt()
- free()
- gcvt()
- getenv()
- getsubopt()
- jrand48()
- l64a()
- labs()
- lcong48()
- ldiv()
- llabs()
- lldiv()
- lrand48()
- malloc()
- mblen()

- mbstowcs()
- mbtowc()
- mkdtemp()
- mkstemp()
- mktemp()
- mktime()
- mrand48()
- nrand48()
- posix_memalign()
- putenv()
- qsort()
- qsort_r()
- quick_exit()
- rand()
- rand_r()
- random()
- realloc()
- reallocarray()
- realpath()
- seed48()
- setenv()
- srand()
- srand48()
- srandom()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

The following methods and variables in <stdlib.h> are not supported:

- grantpt()
- initstate()
- ptsname()
- setkey()
- setstate()
- unlockpt()

3.47 <string.h>

The following methods and variables in <string.h> are supported:

- memccpy()
- memchr()
- memcmp()
- memcpy()
- memmem()
- memmove()
- memset()
- stpcpy()
- stpncpy()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcoll_l()
- strcpy()
- strcspn()
- strdup()
- strerror()
- strerror_l()
- strerror_r()
- strlcat()
- strlcpy()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strndup()
- strnlen()
- strpbrk()
- strrchr()
- strsignal()
- strspn()

- strstr()
- strtok()
- strtok_r()
- strxfrm()
- strxfrm_l()

3.48 <strings.h>

The following methods and variables in <strings.h> are supported:

- bcmp()
- bcopy()
- bzero()
- ffs()
- ftime()
- index()
- rindex()
- strcasecmp()
- strcasecmp_l()
- strncasecmp()
- strncasecmp_l()

3.49 <stropts.h>

The following methods and variables in <stropts.h> are supported:

- ioctl()

The following methods and variables in <stropts.h> are not supported:

- fattach()
- fdetach()
- getmsg()
- getpmsg()
- isastream()
- putmsg()
- putpmsg()

3.50 <sys/ipc.h>

The following methods and variables in <sys/ipc.h> are not supported:

- ftok()

3.51 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munlockall()
- munmap()
- posix_madvise()
- shm_open()
- shm_unlink()

The following methods and variables in <sys/mman.h> are not supported:

- posix_mem_offset()
- posix_typed_mem_get_info()
- posix_typed_mem_open()

3.52 <sys/msg.h>

The following methods and variables in <sys/msg.h> are not supported:

- msgctl()
- msgget()
- msgrcv()
- msgsnd()

3.53 <sys/resource.h>

The following methods and variables in <sys/resource.h> are supported:

- getrusage()

The following methods and variables in <sys/resource.h> are not supported:

- getpriority()
- getrlimit()
- setpriority()
- setrlimit()

3.54 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

3.55 <sys/sem.h>

The following methods and variables in <sys/sem.h> are not supported:

- semctl()
- semget()
- semop()

3.56 <sys/shm.h>

The following methods and variables in <sys/shm.h> are not supported:

- shmat()
- shmctl()
- shmdt()
- shmget()

3.57 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

3.58 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- mknod()
- stat()
- umask()

The following methods and variables in <sys/stat.h> are not supported:

- fchmodat()
- fstatat()
- futimens()
- mkdirat()
- mkfifoat()
- mknodat()
- utimensat()

3.59 <sys/statvfs.h>

The following methods and variables in <sys/statvfs.h> are supported:

- statvfs()

The following methods and variables in <sys/statvfs.h> are not supported:

- fstatvfs()

3.60 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- gettimeofday()
- times()
- utimes()

The following methods in <sys/time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- getitimer()
- setitimer()

3.61 <sys/uio.h>

The following methods and variables in <sys/uio.h> are supported:

- readv()
- writev()

3.62 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

3.63 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()
- waitpid()

The following methods and variables in <sys/wait.h> are not supported:

- waitid()

3.64 <syslog.h>

The following methods and variables in <syslog.h> are not supported:

- closelog()
- openlog()
- setlogmask()
- syslog()

3.65 <termios.h>

The following methods and variables in <termios.h> are supported:

- cfgetispeed()
- cfgetospeed()
- cfsetispeed()
- cfsetospeed()
- tcdrain()
- tcflow()
- tcflush()
- tcgetattr()
- tcsendbreak()
- tcsetattr()

The following methods and variables in <termios.h> are not supported:

- tcgetsid()

3.66 <threads.h>

The following methods and variables in <threads.h> are supported:

- call_once()
- cnd_broadcast()
- cnd_destroy()
- cnd_init()
- cnd_signal()
- cnd_timedwait()
- cnd_wait()
- mtx_destroy()
- mtx_init()
- mtx_lock()
- mtx_timedlock()
- mtx_trylock()
- mtx_unlock()
- thrd_create()
- thrd_current()
- thrd_detach()
- thrd_equal()
- thrd_exit()
- thrd_join()
- thrd_sleep()
- thrd_yield()
- tss_create()
- tss_delete()
- tss_get()
- tss_set()

3.67 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- strftime_l()
- strptime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- timezone
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

The following methods and variables in <time.h> are not supported:

- daylight

- getdate()
- getdate_err

3.68 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxuserеventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

3.69 <ulimit.h>

The following methods and variables in <ulimit.h> are not supported:

- ulimit()

3.70 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchdir()
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getlogin_r()
- getopt()
- getpgrp()
- getpid()
- getppid()
- getuid()
- isatty()
- lchown()
- link()
- lseek()

- optarg
- opterr
- optind
- optopt
- pathconf()
- pause()
- pipe()
- pread()
- pwrite()
- read()
- readlink()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setpgid()
- setsid()
- setuid()
- sleep()
- swab()
- symlink()
- sync()
- sysconf()
- tcgetpgrp()
- tcsetpgrp()
- truncate()
- ttyname()
- ttyname_r()
- ualarm()
- unlink()
- usleep()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()

- execle()
- execlp()
- execv()
- execve()
- execvp()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()
- crypt()
- encrypt()
- faccessat()
- fchownat()
- fexecve()
- gethostid()
- getpgid()
- getsid()
- linkat()
- lockf()
- nice()
- readlinkat()
- setpgrp()
- setregid()
- setreuid()
- symlinkat()
- unlinkat()

3.71 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

3.72 <utmpx.h>

The following methods and variables in <utmpx.h> are not supported:

- endutxent()
- getutxent()
- getutxid()
- getutxline()
- pututxline()
- setutxent()

3.73 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsnrtowcs()
- mbsrtowcs()
- open_wmemstream()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcpcpy()
- wcpncpy()
- wcrtomb()
- wcscasecmp()
- wcscasecmp_l()

- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscoll_l()
- wcscpy()
- wcscspn()
- wcsdup()
- wcsftime()
- wcslcat()
- wcslcpy()
- wcslen()
- wcsncasecmp()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcsnlen()
- wcsnrtombs()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcswidth()
- wcsxfrm()
- wcsxfrm_l()

- wctob()
- wcwidth()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

The following methods and variables in <wchar.h> are not supported:

- wcsncasemcp_l()

3.74 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalnum_l()
- iswalpha()
- iswalpha_l()
- iswblank()
- iswblank_l()
- iswcntrl()
- iswcntrl_l()
- iswctype()
- iswctype_l()
- iswdigit()
- iswdigit_l()
- iswgraph()
- iswgraph_l()
- iswlower()
- iswlower_l()
- iswprint()
- iswprint_l()
- iswpunct()
- iswpunct_l()
- iswspace()
- iswspace_l()
- iswupper()
- iswupper_l()
- iswxdigit()
- iswxdigit_l()
- towctrans()
- towctrans_l()
- towlower()
- towlower_l()
- towupper()
- towupper_l()

- wctrans()
- wctrans_l()
- wctype()
- wctype_l()

3.75 <wordexp.h>

The following methods and variables in <wordexp.h> are not supported:

- wordexp()
- wordfree()

CHAPTER

FOUR

POSIX-2024 (ISSUE 8)

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

4.1 Summary

The follow table summarizes alignment with the POSIX-2024 (Issue 8) standard:

Supported	1030
ENOSYS	16
Not supported	125

4.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

4.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

4.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

4.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

4.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalnum_l()
- isalpha()
- isalpha_l()
- isblank()
- isblank_l()
- iscntrl()
- iscntrl_l()
- isdigit()
- isdigit_l()
- isgraph()
- isgraph_l()
- islower()
- islower_l()
- isprint()
- isprint_l()
- ispunct()
- ispunct_l()
- isspace()
- isspace_l()
- isupper()
- isupper_l()
- isxdigit()
- isxdigit_l()
- tolower()
- tolower_l()
- toupper()
- toupper_l()

4.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- alphasort()
- closedir()
- fdopendir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()
- scandir()
- seekdir()
- telldir()

The following methods and variables in <dirent.h> are not supported:

- dirfd()

4.8 <dlfcn.h>

The following methods and variables in <dlfcn.h> are supported:

- dlclose()
- dlerror()
- dlopen()
- dlsym()

4.9 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

4.10 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

The following methods and variables in <fcntl.h> are not supported:

- openat()
- posix_fadvise()
- posix_fallocate()
- posix_openpt()

4.11 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

4.12 <fmtmsg.h>

The following methods and variables in <fmtmsg.h> are not supported:

- fmtmsg()

4.13 <fnmatch.h>

The following methods and variables in <fnmatch.h> are supported:

- fnmatch()

4.14 <ftw.h>

The following methods and variables in <ftw.h> are supported:

- nftw()

4.15 <glob.h>

The following methods and variables in <glob.h> are supported:

- glob()
- globfree()

4.16 <grp.h>

The following methods and variables in <grp.h> are supported:

- endgrent()
- getgrent()
- getgrgid()
- getgrgid_r()
- getgrnam()
- getgrnam_r()
- setgrent()

4.17 <iconv.h>

The following methods and variables in <iconv.h> are supported:

- iconv()
- iconv_close()
- iconv_open()

4.18 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

4.19 <langinfo.h>

The following methods and variables in <langinfo.h> are supported:

- nl_langinfo()
- nl_langinfo_l()

4.20 <libgen.h>

The following methods and variables in <libgen.h> are supported:

- basename()
- dirname()

4.21 <libintl.h>

The following methods and variables in <libintl.h> are supported:

- textdomain()

4.22 <locale.h>

The following methods and variables in <locale.h> are supported:

- duplocale()
- freelocale()
- localeconv()
- newlocale()
- setlocale()
- uselocale()

4.23 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- j0()
- j1()
- jn()
- signbit()
- signgam
- y0()
- y1()
- yn()

4.24 <monetary.h>

The following methods and variables in <monetary.h> are not supported:

- strfmon()
- strfmon_l()

4.25 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

4.26 <ndbm.h>

The following methods and variables in <ndbm.h> are supported:

- dbm_clearerr()
- dbm_close()
- dbm_delete()
- dbm_error()
- dbm_fetch()
- dbm_firstkey()
- dbm_nextkey()
- dbm_open()
- dbm_store()

4.27 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

4.28 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

4.29 <nl_types.h>

The following methods and variables in <nl_types.h> are not supported:

- catclose()
- catgets()
- catopen()

4.30 <poll.h>

The following methods and variables in <poll.h> are supported:

- poll()

4.31 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_getpshared()
- pthread_barrierattr_init()
- pthread_barrierattr_setpshared()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()

- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()

- pthread_mutexattr_settype()
- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_getpshared()
- pthread_rwlockattr_init()
- pthread_rwlockattr_setpshared()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_spin_destroy()
- pthread_spin_init()
- pthread_spin_lock()
- pthread_spin_trylock()
- pthread_spin_unlock()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

The following methods and variables in <pthread.h> are not supported:

- pthread_mutex_consistent()
- pthread_mutexattr_getrobust()
- pthread_mutexattr_setrobust()

4.32 <pwd.h>

The following methods and variables in <pwd.h> are supported:

- endpwent()
- getpwent()
- getpwnam()
- getpwnam_r()
- getpwuid()
- getpwuid_r()
- setpwent()

4.33 <regex.h>

The following methods and variables in <regex.h> are supported:

- regcomp()
- regerror()
- regexec()
- regfree()

4.34 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

4.35 <search.h>

The following methods and variables in <search.h> are supported:

- hcreate()
- hdestroy()
- hsearch()
- tdelete()
- tfind()
- tsearch()
- twalk()

The following methods and variables in <search.h> are not supported:

- insque()
- lfind()
- lsearch()
- remque()

4.36 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

4.37 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

4.38 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- psignal()
- pthread_kill()
- pthread_sigmask()
- raise()
- sig2str()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

The following methods and variables in <signal.h> are not supported:

- killpg()
- psiginfo()
- sigaltstack()

4.39 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

4.40 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

4.41 <stdatomic.h>

The following methods and variables in <stdatomic.h> are supported:

- ATOMIC_VAR_INIT()
- atomic_compare_exchange_strong()
- atomic_compare_exchange_strong_explicit()
- atomic_compare_exchange_weak()
- atomic_compare_exchange_weak_explicit()
- atomic_exchange()
- atomic_exchange_explicit()
- atomic_fetch_key()
- atomic_fetch_key_explicit()
- atomic_flag_clear()
- atomic_flag_clear_explicit()
- atomic_flag_test_and_set()
- atomic_flag_test_and_set_explicit()
- atomic_init()
- atomic_is_lock_free()
- atomic_load()
- atomic_load_explicit()
- atomic_signal_fence()
- atomic_store()
- atomic_store_explicit()
- atomic_thread_fence()

4.42 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

4.43 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

4.44 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- ctermid()
- dprintf()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fmemopen()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()

- getchar_unlocked()
- open_memstream()
- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- tmpnam()
- ungetc()
- vdprintf()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

The following methods and variables in <stdio.h> are not supported:

- getdelim()

- getline()
- pclose()
- popen()
- renameat()

4.45 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- a64l()
- abort()
- abs()
- aligned_alloc()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- drand48()
- erand48()
- exit()
- free()
- getenv()
- getsubopt()
- jrand48()
- l64a()
- labs()
- lcong48()
- ldiv()
- llabs()
- lldiv()
- lrand48()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mkdtemp()

- mkstemp()
- mktime()
- mrand48()
- nrand48()
- posix_memalign()
- putenv()
- qsort()
- qsort_r()
- quick_exit()
- rand()
- random()
- realloc()
- reallocarray()
- realpath()
- seed48()
- setenv()
- srand()
- srand48()
- srandom()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

The following methods and variables in <stdlib.h> are not supported:

- grantpt()
- initstate()

- ptsname()
- setkey()
- setstate()
- unlockpt()

4.46 <string.h>

The following methods and variables in <string.h> are supported:

- memccpy()
- memchr()
- memcmp()
- memcpy()
- memmem()
- memmove()
- memset()
- stpcpy()
- stpncpy()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcoll_l()
- strcpy()
- strcspn()
- strdup()
- strerror()
- strerror_l()
- strerror_r()
- strlcat()
- strlcpy()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strndup()
- strnlen()
- strpbrk()
- strrchr()
- strsignal()
- strspn()

- strstr()
- strtok()
- strtok_r()
- strxfrm()
- strxfrm_l()

4.47 <strings.h>

The following methods and variables in <strings.h> are supported:

- ffs()
- strcasecmp()
- strcasecmp_l()
- strncasecmp()
- strncasecmp_l()

4.48 <sys/ipc.h>

The following methods and variables in <sys/ipc.h> are not supported:

- ftok()

4.49 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munlockall()
- munmap()
- posix_madvise()
- shm_open()
- shm_unlink()

The following methods and variables in <sys/mman.h> are not supported:

- posix_mem_offset()
- posix_typed_mem_get_info()
- posix_typed_mem_open()

4.50 <sys/msg.h>

The following methods and variables in <sys/msg.h> are not supported:

- msgctl()
- msgget()
- msgrcv()
- msgsnd()

4.51 <sys/resource.h>

The following methods and variables in <sys/resource.h> are supported:

- getrusage()

The following methods and variables in <sys/resource.h> are not supported:

- getpriority()
- getrlimit()
- setpriority()
- setrlimit()

4.52 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

4.53 <sys/sem.h>

The following methods and variables in <sys/sem.h> are not supported:

- semctl()
- semget()
- semop()

4.54 <sys/shm.h>

The following methods and variables in <sys/shm.h> are not supported:

- shmat()
- shmctl()
- shmdt()
- shmget()

4.55 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

4.56 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- mknod()
- stat()
- umask()

The following methods and variables in <sys/stat.h> are not supported:

- fchmodat()
- fstatat()
- futimens()
- mkdirat()
- mkfifoat()
- mknodat()
- utimensat()

4.57 <sys/statvfs.h>

The following methods and variables in <sys/statvfs.h> are supported:

- statvfs()

The following methods and variables in <sys/statvfs.h> are not supported:

- fstatvfs()

4.58 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- times()
- utimes()

4.59 <sys/uio.h>

The following methods and variables in <sys/uio.h> are supported:

- readv()
- writev()

4.60 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

4.61 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()
- waitpid()

The following methods and variables in <sys/wait.h> are not supported:

- waitid()

4.62 <syslog.h>

The following methods and variables in <syslog.h> are not supported:

- closelog()
- openlog()
- setlogmask()
- syslog()

4.63 <termios.h>

The following methods and variables in <termios.h> are supported:

- cfgetispeed()
- cfgetospeed()
- cfsetispeed()
- cfsetospeed()
- tcdrain()
- tcflow()
- tcflush()
- tcgetattr()
- tcsendbreak()
- tcsetattr()

The following methods and variables in <termios.h> are not supported:

- tcgetsid()

4.64 <threads.h>

The following methods and variables in <threads.h> are supported:

- call_once()
- cnd_broadcast()
- cnd_destroy()
- cnd_init()
- cnd_signal()
- cnd_timedwait()
- cnd_wait()
- mtx_destroy()
- mtx_init()
- mtx_lock()
- mtx_timedlock()
- mtx_trylock()
- mtx_unlock()
- thrd_create()
- thrd_current()
- thrd_detach()
- thrd_equal()
- thrd_exit()
- thrd_join()
- thrd_sleep()
- thrd_yield()
- tss_create()
- tss_delete()
- tss_get()
- tss_set()

4.65 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- strftime_l()
- strptime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- timezone
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

The following methods and variables in <time.h> are not supported:

- daylight

- `getdate()`
- `getdate_err`

4.66 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchdir()
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getlogin_r()
- getopt()
- getpgrp()
- getpid()
- getppid()
- getuid()
- isatty()
- lchown()
- link()
- lseek()

- optarg
- opterr
- optind
- optopt
- pathconf()
- pause()
- pipe()
- pread()
- pwrite()
- read()
- readlink()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setpgid()
- setsid()
- setuid()
- sleep()
- swab()
- symlink()
- sync()
- sysconf()
- tcgetpgrp()
- tcsetpgrp()
- truncate()
- ttyname()
- ttyname_r()
- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()
- execlp()

- execv()
- execve()
- execvp()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()
- crypt()
- encrypt()
- faccessat()
- fchownat()
- fexecve()
- gethostid()
- getpgid()
- getsid()
- linkat()
- lockf()
- nice()
- readlinkat()
- setregid()
- setreuid()
- symlinkat()
- unlinkat()

4.67 <utmpx.h>

The following methods and variables in <utmpx.h> are not supported:

- endutxent()
- getutxent()
- getutxid()
- getutxline()
- pututxline()
- setutxent()

4.68 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsnrtowcs()
- mbsrtowcs()
- open_wmemstream()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcpcpy()
- wcpncpy()
- wcrtomb()
- wcscasecmp()
- wcscasecmp_l()

- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscoll_l()
- wcscpy()
- wcscspn()
- wcsdup()
- wcsftime()
- wcslcat()
- wcslcpy()
- wcslen()
- wcsncasecmp()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcsnlen()
- wcsnrtombs()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcswidth()
- wcsxfrm()
- wcsxfrm_l()

- wctob()
- wcwidth()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

The following methods and variables in <wchar.h> are not supported:

- wcsncasemcp_l()

4.69 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalnum_l()
- iswalpha()
- iswalpha_l()
- iswblank()
- iswblank_l()
- iswcntrl()
- iswcntrl_l()
- iswctype()
- iswctype_l()
- iswdigit()
- iswdigit_l()
- iswgraph()
- iswgraph_l()
- iswlower()
- iswlower_l()
- iswprint()
- iswprint_l()
- iswpunct()
- iswpunct_l()
- iswspace()
- iswspace_l()
- iswupper()
- iswupper_l()
- iswxdigit()
- iswxdigit_l()
- towctrans()
- towctrans_l()
- towlower()
- towlower_l()
- towupper()
- towupper_l()

- wctrans()
- wctrans_l()
- wctype()
- wctype_l()

4.70 <wordexp.h>

The following methods and variables in <wordexp.h> are not supported:

- wordexp()
- wordfree()

CHAPTER

FIVE

POSIX-2017 (ISSUE 7)

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

5.1 Summary

The follow table summarizes alignment with the POSIX-2017 (Issue 7) standard:

Supported	986
ENOSYS	18
Not supported	192

5.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

5.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

5.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

5.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

5.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- _tolower()
- _toupper()
- isalnum()
- isalnum_l()
- isalpha()
- isalpha_l()
- isascii()
- isblank()
- isblank_l()
- iscntrl()
- iscntrl_l()
- isdigit()
- isdigit_l()
- isgraph()
- isgraph_l()
- islower()
- islower_l()
- isprint()
- isprint_l()
- ispunct()
- ispunct_l()
- isspace()
- isspace_l()
- isupper()
- isupper_l()
- isxdigit()
- isxdigit_l()
- toascii()
- tolower()
- tolower_l()
- toupper()
- toupper_l()

5.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- alphasort()
- closedir()
- fdopendir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()
- scandir()
- seekdir()
- telldir()

The following methods and variables in <dirent.h> are not supported:

- dirfd()

5.8 <dlfcn.h>

The following methods and variables in <dlfcn.h> are supported:

- dlclose()
- dlerror()
- dlopen()
- dlsym()

5.9 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

5.10 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

The following methods and variables in <fcntl.h> are not supported:

- openat()
- posix_fadvise()
- posix_fallocate()
- posix_openpt()

5.11 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

5.12 <fmtmsg.h>

The following methods and variables in <fmtmsg.h> are not supported:

- fmtmsg()

5.13 <fnmatch.h>

The following methods and variables in <fnmatch.h> are supported:

- fnmatch()

5.14 <ftw.h>

The following methods and variables in <ftw.h> are supported:

- ftw()
- nftw()

5.15 <glob.h>

The following methods and variables in <glob.h> are supported:

- glob()
- globfree()

5.16 <grp.h>

The following methods and variables in <grp.h> are supported:

- endgrent()
- getgrent()
- getgrgid()
- getgrgid_r()
- getgrnam()
- getgrnam_r()
- setgrent()

5.17 <iconv.h>

The following methods and variables in <iconv.h> are supported:

- iconv()
- iconv_close()
- iconv_open()

5.18 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

5.19 <langinfo.h>

The following methods and variables in <langinfo.h> are supported:

- nl_langinfo()
- nl_langinfo_l()

5.20 <libgen.h>

The following methods and variables in <libgen.h> are supported:

- basename()
- dirname()

5.21 <locale.h>

The following methods and variables in <locale.h> are supported:

- duplocale()
- freelocale()
- localeconv()
- newlocale()
- setlocale()
- uselocale()

5.22 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- j0()
- j1()
- jn()
- signbit()
- signgam
- y0()
- y1()
- yn()

5.23 <monetary.h>

The following methods and variables in <monetary.h> are not supported:

- strfmon()
- strfmon_l()

5.24 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

5.25 <ndbm.h>

The following methods and variables in <ndbm.h> are supported:

- dbm_clearerr()
- dbm_close()
- dbm_delete()
- dbm_error()
- dbm_fetch()
- dbm_firstkey()
- dbm_nextkey()
- dbm_open()
- dbm_store()

5.26 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

5.27 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

5.28 <nl_types.h>

The following methods and variables in <nl_types.h> are not supported:

- catclose()
- catgets()
- catopen()

5.29 <poll.h>

The following methods and variables in <poll.h> are supported:

- poll()

5.30 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_getpshared()
- pthread_barrierattr_init()
- pthread_barrierattr_setpshared()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()

- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()

- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_getpshared()
- pthread_rwlockattr_init()
- pthread_rwlockattr_setpshared()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_spin_destroy()
- pthread_spin_init()
- pthread_spin_lock()
- pthread_spin_trylock()
- pthread_spin_unlock()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

The following methods and variables in <pthread.h> are not supported:

- pthread_mutex_consistent()

- pthread_mutexattr_getrobust()
- pthread_mutexattr_setrobust()

5.31 <pwd.h>

The following methods and variables in <pwd.h> are supported:

- endpwent()
- getpwent()
- getpwnam()
- getpwnam_r()
- getpwuid()
- getpwuid_r()
- setpwent()

5.32 <regex.h>

The following methods and variables in <regex.h> are supported:

- regcomp()
- regerror()
- regexec()
- regfree()

5.33 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

5.34 <search.h>

The following methods and variables in <search.h> are supported:

- hcreate()
- hdestroy()
- hsearch()
- tdelete()
- tfind()
- tsearch()
- twalk()

The following methods and variables in <search.h> are not supported:

- insque()
- lfind()
- lsearch()
- remque()

5.35 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

5.36 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

The following methods and variables in <setjmp.h> are not supported:

- _longjmp()
- _setjmp()

5.37 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- psignal()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

The following methods and variables in <signal.h> are not supported:

- killpg()
- psiginfo()
- sigaltstack()
- sighold()
- sigignore()
- siginterrupt()
- sigpause()
- sigrelse()
- sigset()

5.38 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

5.39 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

5.40 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

5.41 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

5.42 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- ctermid()
- dprintf()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fmemopen()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()

- getchar_unlocked()
- gets()
- open_memstream()
- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tempnam()
- tmpfile()
- tmpnam()
- ungetc()
- vdprintf()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

The following methods and variables in <stdio.h> are not supported:

- getdelim()
- getline()
- pclose()
- popen()
- renameat()

5.43 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- a64l()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- drand48()
- erand48()
- exit()
- free()
- getenv()
- getsubopt()
- jrand48()
- l64a()
- labs()
- lcong48()
- ldiv()
- llabs()
- lldiv()
- lrand48()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mkdtemp()
- mkstemp()

- mktime()
- mrand48()
- nrand48()
- posix_memalign()
- putenv()
- qsort()
- rand()
- rand_r()
- random()
- realloc()
- realpath()
- seed48()
- setenv()
- srand()
- srand48()
- srandom()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

The following methods and variables in <stdlib.h> are not supported:

- grantpt()
- initstate()
- ptsname()
- setkey()
- setstate()

- unlockpt()

5.44 <string.h>

The following methods and variables in <string.h> are supported:

- memccpy()
- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- stpcpy()
- stpncpy()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcoll_l()
- strcpy()
- strcspn()
- strdup()
- strerror()
- strerror_l()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strndup()
- strnlen()
- strpbrk()
- strrchr()
- strsignal()
- strspn()
- strstr()
- strtok()
- strtok_r()

- strxfrm()
- strxfrm_l()

5.45 <strings.h>

The following methods and variables in <strings.h> are supported:

- ffs()
- strcasecmp()
- strcasecmp_l()
- strncasecmp()
- strncasecmp_l()

5.46 <stropts.h>

The following methods and variables in <stropts.h> are supported:

- ioctl()

The following methods and variables in <stropts.h> are not supported:

- fattach()
- fdetach()
- getmsg()
- getpmsg()
- isastream()
- putmsg()
- putpmsg()

5.47 <sys/ipc.h>

The following methods and variables in <sys/ipc.h> are not supported:

- ftok()

5.48 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munlockall()
- munmap()
- posix_madvise()
- shm_open()
- shm_unlink()

The following methods and variables in <sys/mman.h> are not supported:

- posix_mem_offset()
- posix_typed_mem_get_info()
- posix_typed_mem_open()

5.49 <sys/msg.h>

The following methods and variables in <sys/msg.h> are not supported:

- msgctl()
- msgget()
- msgrcv()
- msgsnd()

5.50 <sys/resource.h>

The following methods and variables in <sys/resource.h> are supported:

- getrusage()

The following methods and variables in <sys/resource.h> are not supported:

- getpriority()
- getrlimit()
- setpriority()
- setrlimit()

5.51 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

5.52 <sys/sem.h>

The following methods and variables in <sys/sem.h> are not supported:

- semctl()
- semget()
- semop()

5.53 <sys/shm.h>

The following methods and variables in <sys/shm.h> are not supported:

- shmat()
- shmctl()
- shmdt()
- shmget()

5.54 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

5.55 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- mknod()
- stat()
- umask()

The following methods and variables in <sys/stat.h> are not supported:

- fchmodat()
- fstatat()
- futimens()
- mkdirat()
- mkfifoat()
- mknodat()
- utimensat()

5.56 <sys/statvfs.h>

The following methods and variables in <sys/statvfs.h> are supported:

- statvfs()

The following methods and variables in <sys/statvfs.h> are not supported:

- fstatvfs()

5.57 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- gettimeofday()
- times()
- utimes()

The following methods in <sys/time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- getitimer()
- setitimer()

5.58 <sys/uio.h>

The following methods and variables in <sys/uio.h> are supported:

- readv()
- writev()

5.59 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

5.60 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()
- waitpid()

The following methods and variables in <sys/wait.h> are not supported:

- waitid()

5.61 <syslog.h>

The following methods and variables in <syslog.h> are not supported:

- closelog()
- openlog()
- setlogmask()
- syslog()

5.62 <termios.h>

The following methods and variables in <termios.h> are supported:

- cfgetispeed()
- cfgetospeed()
- cfsetispeed()
- cfsetospeed()
- tcdrain()
- tcflow()
- tcflush()
- tcgetattr()
- tcsendbreak()
- tcsetattr()

The following methods and variables in <termios.h> are not supported:

- tcgetsid()

5.63 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- strftime_l()
- strptime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- timezone
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

The following methods and variables in <time.h> are not supported:

- daylight

- getdate()
- getdate_err

5.64 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxuserеventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

5.65 <ulimit.h>

The following methods and variables in <ulimit.h> are not supported:

- ulimit()

5.66 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchdir()
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getlogin_r()
- getopt()
- getpgrp()
- getpid()
- getppid()
- getuid()
- isatty()
- lchown()
- link()
- lseek()

- optarg
- opterr
- optind
- optopt
- pathconf()
- pause()
- pipe()
- pread()
- pwrite()
- read()
- readlink()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setpgid()
- setsid()
- setuid()
- sleep()
- swab()
- symlink()
- sync()
- sysconf()
- tcgetpgrp()
- tcsetpgrp()
- truncate()
- ttyname()
- ttyname_r()
- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()
- execlp()

- execv()
- execve()
- execvp()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()
- crypt()
- encrypt()
- faccessat()
- fchownat()
- fexecve()
- gethostid()
- getpgid()
- getsid()
- linkat()
- lockf()
- nice()
- readlinkat()
- setpgrp()
- setregid()
- setreuid()
- symlinkat()
- unlinkat()

5.67 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

5.68 <utmpx.h>

The following methods and variables in <utmpx.h> are not supported:

- endutxent()
- getutxent()
- getutxid()
- getutxline()
- pututxline()
- setutxent()

5.69 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsnrtowcs()
- mbsrtowcs()
- open_wmemstream()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcpcpy()
- wcpncpy()
- wcrtomb()
- wcscasecmp()
- wcscasecmp_l()

- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscoll_l()
- wcscpy()
- wcscspn()
- wcsdup()
- wcsftime()
- wcslen()
- wcsncasecmp()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcsnlen()
- wcsnrtombs()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcswidth()
- wcsxfrm()
- wcsxfrm_l()
- wctob()
- wcwidth()

- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

The following methods and variables in <wchar.h> are not supported:

- wcsncasemcp_l()

5.70 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalnum_l()
- iswalpha()
- iswalpha_l()
- iswblank()
- iswblank_l()
- iswcntrl()
- iswcntrl_l()
- iswctype()
- iswctype_l()
- iswdigit()
- iswdigit_l()
- iswgraph()
- iswgraph_l()
- iswlower()
- iswlower_l()
- iswprint()
- iswprint_l()
- iswpunct()
- iswpunct_l()
- iswspace()
- iswspace_l()
- iswupper()
- iswupper_l()
- iswxdigit()
- iswxdigit_l()
- towctrans()
- towctrans_l()
- towlower()
- towlower_l()
- towupper()
- towupper_l()

- wctrans()
- wctrans_l()
- wctype()
- wctype_l()

5.71 <wordexp.h>

The following methods and variables in <wordexp.h> are not supported:

- wordexp()
- wordfree()

CHAPTER

SIX

POSIX-2008 (ISSUE 6 TC2)

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

6.1 Summary

The follow table summarizes alignment with the POSIX-2008 (Issue 6 TC2) standard:

Supported	986
ENOSYS	18
Not supported	192

6.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

6.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

6.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

6.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

6.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- _tolower()
- _toupper()
- isalnum()
- isalnum_l()
- isalpha()
- isalpha_l()
- isascii()
- isblank()
- isblank_l()
- iscntrl()
- iscntrl_l()
- isdigit()
- isdigit_l()
- isgraph()
- isgraph_l()
- islower()
- islower_l()
- isprint()
- isprint_l()
- ispunct()
- ispunct_l()
- isspace()
- isspace_l()
- isupper()
- isupper_l()
- isxdigit()
- isxdigit_l()
- toascii()
- tolower()
- tolower_l()
- toupper()
- toupper_l()

6.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- alphasort()
- closedir()
- fdopendir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()
- scandir()
- seekdir()
- telldir()

The following methods and variables in <dirent.h> are not supported:

- dirfd()

6.8 <dlfcn.h>

The following methods and variables in <dlfcn.h> are supported:

- dlclose()
- dlerror()
- dlopen()
- dlsym()

6.9 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

6.10 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

The following methods and variables in <fcntl.h> are not supported:

- openat()
- posix_fadvise()
- posix_fallocate()
- posix_openpt()

6.11 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

6.12 <fmtmsg.h>

The following methods and variables in <fmtmsg.h> are not supported:

- fmtmsg()

6.13 <fnmatch.h>

The following methods and variables in <fnmatch.h> are supported:

- fnmatch()

6.14 <ftw.h>

The following methods and variables in <ftw.h> are supported:

- ftw()
- nftw()

6.15 <glob.h>

The following methods and variables in <glob.h> are supported:

- glob()
- globfree()

6.16 <grp.h>

The following methods and variables in <grp.h> are supported:

- endgrent()
- getgrent()
- getgrgid()
- getgrgid_r()
- getgrnam()
- getgrnam_r()
- setgrent()

6.17 <iconv.h>

The following methods and variables in <iconv.h> are supported:

- iconv()
- iconv_close()
- iconv_open()

6.18 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

6.19 <langinfo.h>

The following methods and variables in <langinfo.h> are supported:

- nl_langinfo()
- nl_langinfo_l()

6.20 <libgen.h>

The following methods and variables in <libgen.h> are supported:

- basename()
- dirname()

6.21 <locale.h>

The following methods and variables in <locale.h> are supported:

- duplocale()
- freelocale()
- localeconv()
- newlocale()
- setlocale()
- uselocale()

6.22 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- j0()
- j1()
- jn()
- signbit()
- signgam
- y0()
- y1()
- yn()

6.23 <monetary.h>

The following methods and variables in <monetary.h> are not supported:

- strfmon()
- strfmon_l()

6.24 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

6.25 <ndbm.h>

The following methods and variables in <ndbm.h> are supported:

- dbm_clearerr()
- dbm_close()
- dbm_delete()
- dbm_error()
- dbm_fetch()
- dbm_firstkey()
- dbm_nextkey()
- dbm_open()
- dbm_store()

6.26 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

6.27 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

6.28 <nl_types.h>

The following methods and variables in <nl_types.h> are not supported:

- catclose()
- catgets()
- catopen()

6.29 <poll.h>

The following methods and variables in <poll.h> are supported:

- poll()

6.30 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_getpshared()
- pthread_barrierattr_init()
- pthread_barrierattr_setpshared()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()

- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()

- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_getpshared()
- pthread_rwlockattr_init()
- pthread_rwlockattr_setpshared()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_spin_destroy()
- pthread_spin_init()
- pthread_spin_lock()
- pthread_spin_trylock()
- pthread_spin_unlock()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

The following methods and variables in <pthread.h> are not supported:

- pthread_mutex_consistent()

- pthread_mutexattr_getrobust()
- pthread_mutexattr_setrobust()

6.31 <pwd.h>

The following methods and variables in <pwd.h> are supported:

- endpwent()
- getpwent()
- getpwnam()
- getpwnam_r()
- getpwuid()
- getpwuid_r()
- setpwent()

6.32 <regex.h>

The following methods and variables in <regex.h> are supported:

- regcomp()
- regerror()
- regexec()
- regfree()

6.33 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

6.34 <search.h>

The following methods and variables in <search.h> are supported:

- hcreate()
- hdestroy()
- hsearch()
- tdelete()
- tfind()
- tsearch()
- twalk()

The following methods and variables in <search.h> are not supported:

- insque()
- lfind()
- lsearch()
- remque()

6.35 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

6.36 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

The following methods and variables in <setjmp.h> are not supported:

- _longjmp()
- _setjmp()

6.37 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- psignal()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

The following methods and variables in <signal.h> are not supported:

- killpg()
- psiginfo()
- sigaltstack()
- sighold()
- sigignore()
- siginterrupt()
- sigpause()
- sigrelse()
- sigset()

6.38 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

6.39 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

6.40 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

6.41 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

6.42 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- ctermid()
- dprintf()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fmemopen()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()

- getchar_unlocked()
- gets()
- open_memstream()
- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tempnam()
- tmpfile()
- tmpnam()
- ungetc()
- vdprintf()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

The following methods and variables in <stdio.h> are not supported:

- getdelim()
- getline()
- pclose()
- popen()
- renameat()

6.43 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- a64l()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- drand48()
- erand48()
- exit()
- free()
- getenv()
- getsubopt()
- jrand48()
- l64a()
- labs()
- lcong48()
- ldiv()
- llabs()
- lldiv()
- lrand48()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mkdtemp()
- mkstemp()

- mktime()
- mrand48()
- nrand48()
- posix_memalign()
- putenv()
- qsort()
- rand()
- rand_r()
- random()
- realloc()
- realpath()
- seed48()
- setenv()
- srand()
- srand48()
- srandom()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

The following methods and variables in <stdlib.h> are not supported:

- grantpt()
- initstate()
- ptsname()
- setkey()
- setstate()

- unlockpt()

6.44 <string.h>

The following methods and variables in <string.h> are supported:

- memccpy()
- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- stpcpy()
- stpncpy()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcoll_l()
- strcpy()
- strcspn()
- strdup()
- strerror()
- strerror_l()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strndup()
- strnlen()
- strpbrk()
- strrchr()
- strsignal()
- strspn()
- strstr()
- strtok()
- strtok_r()

- strxfrm()
- strxfrm_l()

6.45 <strings.h>

The following methods and variables in <strings.h> are supported:

- ffs()
- strcasecmp()
- strcasecmp_l()
- strncasecmp()
- strncasecmp_l()

6.46 <stropts.h>

The following methods and variables in <stropts.h> are supported:

- ioctl()

The following methods and variables in <stropts.h> are not supported:

- fattach()
- fdetach()
- getmsg()
- getpmsg()
- isastream()
- putmsg()
- putpmsg()

6.47 <sys/ipc.h>

The following methods and variables in <sys/ipc.h> are not supported:

- ftok()

6.48 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munlockall()
- munmap()
- posix_madvise()
- shm_open()
- shm_unlink()

The following methods and variables in <sys/mman.h> are not supported:

- posix_mem_offset()
- posix_typed_mem_get_info()
- posix_typed_mem_open()

6.49 <sys/msg.h>

The following methods and variables in <sys/msg.h> are not supported:

- msgctl()
- msgget()
- msgrcv()
- msgsnd()

6.50 <sys/resource.h>

The following methods and variables in <sys/resource.h> are supported:

- getrusage()

The following methods and variables in <sys/resource.h> are not supported:

- getpriority()
- getrlimit()
- setpriority()
- setrlimit()

6.51 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

6.52 <sys/sem.h>

The following methods and variables in <sys/sem.h> are not supported:

- semctl()
- semget()
- semop()

6.53 <sys/shm.h>

The following methods and variables in <sys/shm.h> are not supported:

- shmat()
- shmctl()
- shmdt()
- shmget()

6.54 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

6.55 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- mknod()
- stat()
- umask()

The following methods and variables in <sys/stat.h> are not supported:

- fchmodat()
- fstatat()
- futimens()
- mkdirat()
- mkfifoat()
- mknodat()
- utimensat()

6.56 <sys/statvfs.h>

The following methods and variables in <sys/statvfs.h> are supported:

- statvfs()

The following methods and variables in <sys/statvfs.h> are not supported:

- fstatvfs()

6.57 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- gettimeofday()
- times()
- utimes()

The following methods in <sys/time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- getitimer()
- setitimer()

6.58 <sys/uio.h>

The following methods and variables in <sys/uio.h> are supported:

- readv()
- writev()

6.59 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

6.60 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()
- waitpid()

The following methods and variables in <sys/wait.h> are not supported:

- waitid()

6.61 <syslog.h>

The following methods and variables in <syslog.h> are not supported:

- closelog()
- openlog()
- setlogmask()
- syslog()

6.62 <termios.h>

The following methods and variables in <termios.h> are supported:

- cfgetispeed()
- cfgetospeed()
- cfsetispeed()
- cfsetospeed()
- tcdrain()
- tcflow()
- tcflush()
- tcgetattr()
- tcsendbreak()
- tcsetattr()

The following methods and variables in <termios.h> are not supported:

- tcgetsid()

6.63 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- strftime_l()
- strptime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- timezone
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

The following methods and variables in <time.h> are not supported:

- daylight

- getdate()
- getdate_err

6.64 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxusereventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

6.65 <ulimit.h>

The following methods and variables in <ulimit.h> are not supported:

- ulimit()

6.66 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchdir()
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getlogin_r()
- getopt()
- getpgrp()
- getpid()
- getppid()
- getuid()
- isatty()
- lchown()
- link()
- lseek()

- optarg
- opterr
- optind
- optopt
- pathconf()
- pause()
- pipe()
- pread()
- pwrite()
- read()
- readlink()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setpgid()
- setsid()
- setuid()
- sleep()
- swab()
- symlink()
- sync()
- sysconf()
- tcgetpgrp()
- tcsetpgrp()
- truncate()
- ttyname()
- ttyname_r()
- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()
- execlp()

- execv()
- execve()
- execvp()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()
- crypt()
- encrypt()
- faccessat()
- fchownat()
- fexecve()
- gethostid()
- getpgid()
- getsid()
- linkat()
- lockf()
- nice()
- readlinkat()
- setpgrp()
- setregid()
- setreuid()
- symlinkat()
- unlinkat()

6.67 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

6.68 <utmpx.h>

The following methods and variables in <utmpx.h> are not supported:

- endutxent()
- getutxent()
- getutxid()
- getutxline()
- pututxline()
- setutxent()

6.69 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsnrtowcs()
- mbsrtowcs()
- open_wmemstream()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcpcpy()
- wcpncpy()
- wcrtomb()
- wcscasecmp()
- wcscasecmp_l()

- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscoll_l()
- wcscpy()
- wcscspn()
- wcsdup()
- wcsftime()
- wcslen()
- wcsncasecmp()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcsnlen()
- wcsnrtombs()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcswidth()
- wcsxfrm()
- wcsxfrm_l()
- wctob()
- wcwidth()

- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

The following methods and variables in <wchar.h> are not supported:

- wcsncasemcp_l()

6.70 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalnum_l()
- iswalpha()
- iswalpha_l()
- iswblank()
- iswblank_l()
- iswcntrl()
- iswcntrl_l()
- iswctype()
- iswctype_l()
- iswdigit()
- iswdigit_l()
- iswgraph()
- iswgraph_l()
- iswlower()
- iswlower_l()
- iswprint()
- iswprint_l()
- iswpunct()
- iswpunct_l()
- iswspace()
- iswspace_l()
- iswupper()
- iswupper_l()
- iswxdigit()
- iswxdigit_l()
- towctrans()
- towctrans_l()
- towlower()
- towlower_l()
- towupper()
- towupper_l()

- wctrans()
- wctrans_l()
- wctype()
- wctype_l()

6.71 <wordexp.h>

The following methods and variables in <wordexp.h> are not supported:

- wordexp()
- wordfree()

CHAPTER

SEVEN

POSIX-2003 (ISSUE 6)

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

7.1 Summary

The follow table summarizes alignment with the POSIX-2003 (Issue 6) standard:

Supported	938
ENOSYS	18
Not supported	166

7.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

7.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

7.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

7.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

7.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- _tolower()
- _toupper()
- isalnum()
- isalpha()
- isascii()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- islower_l()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- toascii()
- tolower()
- toupper()

7.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()
- seekdir()

7.8 <dlfcn.h>

The following methods and variables in <dlfcn.h> are supported:

- dlclose()
- dlerror()
- dlopen()
- dlsym()

7.9 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

7.10 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

The following methods and variables in <fcntl.h> are not supported:

- posix_fadvise()
- posix_fallocate()
- posix_openpt()

7.11 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

7.12 <fmtmsg.h>

The following methods and variables in <fmtmsg.h> are not supported:

- fmtmsg()

7.13 <fnmatch.h>

The following methods and variables in <fnmatch.h> are supported:

- fnmatch()

7.14 <ftw.h>

The following methods and variables in <ftw.h> are supported:

- ftw()
- nftw()

7.15 <glob.h>

The following methods and variables in <glob.h> are supported:

- glob()
- globfree()

7.16 <grp.h>

The following methods and variables in <grp.h> are supported:

- endgrent()
- getgrent()
- getgrgid()
- getgrgid_r()
- getgrnam()
- getgrnam_r()
- setgrent()

7.17 <iconv.h>

The following methods and variables in <iconv.h> are supported:

- iconv()
- iconv_close()
- iconv_open()

7.18 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

7.19 <langinfo.h>

The following methods and variables in <langinfo.h> are supported:

- nl_langinfo()

7.20 <libgen.h>

The following methods and variables in <libgen.h> are supported:

- basename()
- dirname()

7.21 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

7.22 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalb()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()

- sqrt()
- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- j0()
- j1()
- jn()
- signbit()
- signgam
- y0()
- y1()
- yn()

7.23 <monetary.h>

The following methods and variables in <monetary.h> are not supported:

- strfmon()

7.24 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

7.25 <ndbm.h>

The following methods and variables in <ndbm.h> are supported:

- dbm_clearerr()
- dbm_close()
- dbm_delete()
- dbm_error()
- dbm_fetch()
- dbm_firstkey()
- dbm_nextkey()
- dbm_open()
- dbm_store()

7.26 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

7.27 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostbyaddr()
- gethostbyname()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- h_errno
- sethostent()
- setnetent()
- setprotoent()
- setservent()

7.28 <nl_types.h>

The following methods and variables in <nl_types.h> are not supported:

- catclose()
- catgets()
- catopen()

7.29 <poll.h>

The following methods and variables in <poll.h> are supported:

- poll()

7.30 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_getpshared()
- pthread_barrierattr_init()
- pthread_barrierattr_setpshared()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()

- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()

- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_getpshared()
- pthread_rwlockattr_init()
- pthread_rwlockattr_setpshared()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_spin_destroy()
- pthread_spin_init()
- pthread_spin_lock()
- pthread_spin_trylock()
- pthread_spin_unlock()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

7.31 <pwd.h>

The following methods and variables in <pwd.h> are supported:

- endpwent()
- getpwent()
- getpwnam()
- getpwnam_r()
- getpwuid()
- getpwuid_r()
- setpwent()

7.32 <regex.h>

The following methods and variables in <regex.h> are supported:

- regcomp()
- regerror()
- regexec()
- regfree()

7.33 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

7.34 <search.h>

The following methods and variables in <search.h> are supported:

- hcreate()
- hdestroy()
- hsearch()
- tdelete()
- tfind()
- tsearch()
- twalk()

The following methods and variables in <search.h> are not supported:

- insque()
- lfind()
- lsearch()
- remque()

7.35 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

7.36 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

The following methods and variables in <setjmp.h> are not supported:

- _longjmp()
- _setjmp()

7.37 <signal.h>

The following methods and variables in <signal.h> are supported:

- bsd_signal()
- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

The following methods and variables in <signal.h> are not supported:

- killpg()
- sighold()
- sigignore()
- siginterrupt()
- sigpause()
- sigrelse()
- sigset()

7.38 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

7.39 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

7.40 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

7.41 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

7.42 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- ctermid()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- gets()

- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tempnam()
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

The following methods and variables in <stdio.h> are not supported:

- pclose()
- popen()

7.43 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- a64l()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- drand48()
- ecvt()
- erand48()
- exit()
- fcvt()
- free()
- gcvt()
- getenv()
- getsubopt()
- jrand48()
- l64a()
- labs()
- lcong48()
- ldiv()
- llabs()
- lldiv()
- lrand48()
- malloc()
- mblen()
- mbstowcs()

- mbtowc()
- mkstemp()
- mktemp()
- mktime()
- mrand48()
- nrand48()
- posix_memalign()
- putenv()
- qsort()
- rand()
- rand_r()
- random()
- realloc()
- realpath()
- seed48()
- setenv()
- srand()
- srand48()
- srandom()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

The following methods and variables in <stdlib.h> are not supported:

- grantpt()
- initstate()

- ptsname()
- setkey()
- setstate()
- unlockpt()

7.44 <string.h>

The following methods and variables in <string.h> are supported:

- memccpy()
- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strdup()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

7.45 <strings.h>

The following methods and variables in <strings.h> are supported:

- bcmp()
- bcopy()
- bzero()
- ffs()
- ftime()
- index()
- rindex()
- strcasecmp()
- strncasecmp()

7.46 <stropts.h>

The following methods and variables in <stropts.h> are supported:

- ioctl()

The following methods and variables in <stropts.h> are not supported:

- fattach()
- fdetach()
- getmsg()
- getpmsg()
- isastream()
- putmsg()
- putpmsg()

7.47 <sys/ipc.h>

The following methods and variables in <sys/ipc.h> are not supported:

- ftok()

7.48 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munlockall()
- munmap()
- posix_madvise()
- shm_open()
- shm_unlink()

The following methods and variables in <sys/mman.h> are not supported:

- posix_mem_offset()
- posix_typed_mem_get_info()
- posix_typed_mem_open()

7.49 <sys/msg.h>

The following methods and variables in <sys/msg.h> are not supported:

- msgctl()
- msgget()
- msgrcv()
- msgsnd()

7.50 <sys/resource.h>

The following methods and variables in <sys/resource.h> are supported:

- getrusage()

The following methods and variables in <sys/resource.h> are not supported:

- getpriority()
- getrlimit()
- setpriority()
- setrlimit()

7.51 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

7.52 <sys/sem.h>

The following methods and variables in <sys/sem.h> are not supported:

- semctl()
- semget()
- semop()

7.53 <sys/shm.h>

The following methods and variables in <sys/shm.h> are not supported:

- shmat()
- shmctl()
- shmdt()
- shmget()

7.54 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

7.55 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- mknod()
- stat()
- umask()

7.56 <sys/statvfs.h>

The following methods and variables in <sys/statvfs.h> are supported:

- statvfs()

The following methods and variables in <sys/statvfs.h> are not supported:

- fstatvfs()

7.57 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- gettimeofday()
- times()
- utimes()

The following methods in <sys/time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- getitimer()
- setitimer()

7.58 <sys/uio.h>

The following methods and variables in <sys/uio.h> are supported:

- readv()
- writev()

7.59 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

7.60 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()
- waitpid()

The following methods and variables in <sys/wait.h> are not supported:

- waitid()

7.61 <syslog.h>

The following methods and variables in <syslog.h> are not supported:

- closelog()
- openlog()
- setlogmask()
- syslog()

7.62 <termios.h>

The following methods and variables in <termios.h> are supported:

- cfgetispeed()
- cfgetospeed()
- cfsetispeed()
- cfsetospeed()
- tcdrain()
- tcflow()
- tcflush()
- tcgetattr()
- tcsendbreak()
- tcsetattr()

The following methods and variables in <termios.h> are not supported:

- tcgetsid()

7.63 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- strptime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- timezone
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

The following methods and variables in <time.h> are not supported:

- daylight
- getdate()

- getdate_err

7.64 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxusereventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

7.65 <ulimit.h>

The following methods and variables in <ulimit.h> are not supported:

- ulimit()

7.66 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchdir()
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getlogin_r()
- getopt()
- getpgrp()
- getpid()
- getppid()
- getuid()
- isatty()
- lchown()
- link()
- lseek()

- optarg
- opterr
- optind
- optopt
- pathconf()
- pause()
- pipe()
- pread()
- pwrite()
- read()
- readlink()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setpgid()
- setsid()
- setuid()
- sleep()
- swab()
- symlink()
- sync()
- sysconf()
- tcgetpgrp()
- tcsetpgrp()
- truncate()
- ttyname()
- ttyname_r()
- ualarm()
- unlink()
- usleep()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()

- execle()
- execlp()
- execv()
- execve()
- execvp()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()
- crypt()
- encrypt()
- gethostid()
- getpgid()
- getsid()
- lockf()
- nice()
- setpgrp()
- setregid()
- setreuid()

7.67 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

7.68 <utmpx.h>

The following methods and variables in <utmpx.h> are not supported:

- endutxent()
- getutxent()
- getutxid()
- getutxline()
- pututxline()
- setutxent()

7.69 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcrtomb()
- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscpy()
- wcscspn()

- wcsftime()
- wcslen()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcsnlen()
- wcsnrtombs()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcswidth()
- wcsxfrm()
- wctob()
- wcwidth()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

7.70 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()
- wctrans()
- wctype()

7.71 <wordexp.h>

The following methods and variables in <wordexp.h> are not supported:

- wordexp()
- wordfree()

CHAPTER

EIGHT

POSIX PSE51 - MINIMAL

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

8.1 Summary

The follow table summarizes alignment with the POSIX PSE51 - Minimal standard:

Supported	282
ENOSYS	2
Not supported	1

8.2 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

8.3 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

8.4 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- open()

8.5 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

8.6 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()

8.7 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

8.8 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()

- pthread_condattr_setclock()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

8.9 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()

8.10 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

8.11 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()

8.12 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

8.13 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

8.14 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

8.15 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- gets()
- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()

- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

8.16 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()

8.17 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

8.18 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- munlock()
- munmap()
- shm_open()
- shm_unlink()

8.19 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

8.20 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

8.21 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- alarm()
- close()
- environ
- fdatasync()
- fsync()
- pause()
- read()
- sysconf()
- write()

The following methods and variables in <unistd.h> are not supported:

- confstr()

CHAPTER

NINE

POSIX PSE52 - REAL-TIME CONTROLLER

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

9.1 Summary

The follow table summarizes alignment with the POSIX PSE52 - Real-Time Controller standard:

Supported	575
ENOSYS	2
Not supported	52

9.2 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

9.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

9.4 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

9.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

9.6 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

9.7 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

9.8 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()

9.9 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

9.10 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

9.11 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

9.12 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()

- pthread_condattr_setclock()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

9.13 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()

9.14 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

9.15 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()

9.16 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

9.17 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

9.18 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

9.19 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- gets()
- perror()

- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

9.20 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()

9.21 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

9.22 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- msync()
- munlock()
- munmap()
- shm_open()
- shm_unlink()

9.23 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()

9.24 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

9.25 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

9.26 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxuserеventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

9.27 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- close()
- dup()
- dup2()
- environ
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- link()
- lseek()
- pathconf()
- pause()
- read()
- rmdir()
- sysconf()
- unlink()
- write()

The following methods and variables in <unistd.h> are not supported:

- confstr()

9.28 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

CHAPTER

TEN

POSIX PSE53 - DEDICATED

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

10.1 Summary

The follow table summarizes alignment with the POSIX PSE53 - Dedicated standard:

Supported	661
ENOSYS	15
Not supported	75

10.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

10.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

10.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

10.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

10.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

10.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

10.8 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

10.9 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

10.10 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

10.11 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()

10.12 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

10.13 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

10.14 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

10.15 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

10.16 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

10.17 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()

- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()

- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

10.18 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

10.19 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

10.20 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

10.21 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

10.22 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

10.23 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

10.24 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

10.25 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- gets()
- perror()

- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

10.26 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()

- strtoull()
- unsetenv()

10.27 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

10.28 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munmap()
- shm_open()
- shm_unlink()

10.29 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

10.30 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

10.31 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()

10.32 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- times()
- utimes()

10.33 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

10.34 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()

10.35 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

10.36 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxusereventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

10.37 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- close()
- dup()
- dup2()
- environ
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- gethostname()
- getpgrp()
- getpid()
- getppid()
- link()
- lseek()
- pathconf()
- pause()
- pipe()
- read()
- rmdir()
- sleep()
- sysconf()
- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()

- `execlp()`
- `execv()`
- `execve()`
- `execvp()`
- `fork()`

The following methods and variables in `<unistd.h>` are not supported:

- `confstr()`

10.38 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

CHAPTER

ELEVEN

POSIX PSE54 - MULTIPURPOSE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

11.1 Summary

The follow table summarizes alignment with the POSIX PSE54 - Multipurpose standard:

Supported	805
ENOSYS	16
Not supported	85

11.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

11.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

11.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

11.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

11.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

11.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

11.8 <dlfcn.h>

The following methods and variables in <dlfcn.h> are supported:

- dlclose()
- dlerror()
- dlopen()
- dlsym()

11.9 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

11.10 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

The following methods and variables in <fcntl.h> are not supported:

- posix_fadvise()
- posix_fallocate()

11.11 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

11.12 <fnmatch.h>

The following methods and variables in <fnmatch.h> are supported:

- fnmatch()

11.13 <glob.h>

The following methods and variables in <glob.h> are supported:

- glob()
- globfree()

11.14 <grp.h>

The following methods and variables in <grp.h> are supported:

- getgrgid()
- getgrgid_r()
- getgrnam()
- getgrnam_r()

11.15 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

11.16 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

11.17 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

11.18 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

11.19 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

11.20 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

11.21 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()

- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()

- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

11.22 <pwd.h>

The following methods and variables in <pwd.h> are supported:

- getpwnam()
- getpwnam_r()
- getpwuid()
- getpwuid_r()

11.23 <regex.h>

The following methods and variables in <regex.h> are supported:

- regcomp()
- regerror()
- regexec()
- regfree()

11.24 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

11.25 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

11.26 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

11.27 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

11.28 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

11.29 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

11.30 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

11.31 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- ctermid()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- gets()

- perror()
- printf()
- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

The following methods and variables in <stdio.h> are not supported:

- pclose()
- popen()

11.32 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mktime()
- posix_memalign()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()

- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

11.33 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

11.34 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munmap()
- posix_madvise()
- shm_open()
- shm_unlink()

11.35 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

11.36 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

11.37 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

11.38 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- times()
- utimes()

11.39 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

11.40 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()

11.41 <syslog.h>

The following methods and variables in <syslog.h> are not supported:

- closelog()
- openlog()
- setlogmask()
- syslog()

11.42 <termios.h>

The following methods and variables in <termios.h> are supported:

- cfgetispeed()
- cfgetospeed()
- cfsetispeed()
- cfsetospeed()
- tcdrain()
- tcflow()
- tcflush()
- tcgetattr()
- tcsendbreak()
- tcsetattr()

11.43 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

11.44 <trace.h>

The following methods and variables in <trace.h> are not supported:

- posix_trace_attr_destroy()
- posix_trace_attr_getclockres()
- posix_trace_attr_getcreatetime()
- posix_trace_attr_getgenversion()
- posix_trace_attr_getinherited()
- posix_trace_attr_getlogfullpolicy()
- posix_trace_attr_getlogsize()
- posix_trace_attr_getmaxdatasize()
- posix_trace_attr_getmaxsystemeventsize()
- posix_trace_attr_getmaxusereventsize()
- posix_trace_attr_getname()
- posix_trace_attr_getstreamfullpolicy()
- posix_trace_attr_getstreamsize()
- posix_trace_attr_init()
- posix_trace_attr_setinherited()
- posix_trace_attr_setlogfullpolicy()
- posix_trace_attr_setlogsize()
- posix_trace_attr_setmaxdatasize()
- posix_trace_attr_setname()
- posix_trace_attr_setstreamfullpolicy()
- posix_trace_attr_setstreamsize()
- posix_trace_clear()
- posix_trace_close()
- posix_trace_create()
- posix_trace_create_withlog()
- posix_trace_event()
- posix_trace_eventid_equal()
- posix_trace_eventid_get_name()
- posix_trace_eventid_open()
- posix_trace_eventset_add()
- posix_trace_eventset_del()
- posix_trace_eventset_empty()

- posix_trace_eventset_fill()
- posix_trace_eventset_ismember()
- posix_trace_eventtypelist_getnext_id()
- posix_trace_eventtypelist_rewind()
- posix_trace_flush()
- posix_trace_get_attr()
- posix_trace_get_filter()
- posix_trace_get_status()
- posix_trace_getnext_event()
- posix_trace_open()
- posix_trace_rewind()
- posix_trace_set_filter()
- posix_trace_shutdown()
- posix_trace_start()
- posix_trace_stop()
- posix_trace_timedgetnext_event()
- posix_trace_trid_eventid_open()
- posix_trace_trygetnext_event()

11.45 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getlogin_r()
- getopt()
- getpgrp()
- getpid()
- getppid()
- getuid()
- isatty()
- link()
- lseek()
- optarg
- opterr
- optind

- optopt
- pathconf()
- pipe()
- read()
- readlink()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setpgid()
- setuid()
- sleep()
- symlink()
- sysconf()
- tcgetpgrp()
- tcsetpgrp()
- ttyname()
- ttyname_r()
- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()
- execlp()
- execv()
- execve()
- execvp()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()

11.46 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

11.47 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcrtomb()
- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscpy()
- wcscspn()

- wcsftime()
- wcslen()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcsxfrm()
- wctob()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

11.48 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()
- wctrans()
- wctype()

11.49 <wordexp.h>

The following methods and variables in <wordexp.h> are not supported:

- wordexp()
- wordfree()

CHAPTER

TWELVE

C99 STANDARD LIBRARY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

12.1 Summary

The follow table summarizes alignment with the C99 Standard Library standard:

Supported	488
ENOSYS	0
Not supported	1

12.2 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

12.3 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

12.4 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

12.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

12.6 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

12.7 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

12.8 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

12.9 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

12.10 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()

12.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- raise()
- signal()

12.12 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

12.13 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

12.14 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

12.15 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fsetpos()
- ftell()
- fwrite()
- getc()
- getchar()
- gets()
- perror()
- printf()
- putc()
- putchar()
- puts()
- remove()
- rename()
- rewind()
- scanf()

- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

12.16 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mktime()
- qsort()
- rand()
- realloc()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()

- strtoull()
- wcstombs()
- wctomb()

12.17 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strxfrm()

12.18 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- clock()
- ctime()
- difftime()
- gmtime()
- localtime()
- strftime()
- time()

12.19 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcrtomb()
- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscpy()
- wcscspn()

- wcsftime()
- wcslen()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcsxfrm()
- wctob()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

12.20 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()
- wctrans()
- wctype()

CHAPTER

THIRTEEN

C11 STANDARD LIBRARY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

13.1 Summary

The follow table summarizes alignment with the C11 Standard Library standard:

Supported	534
ENOSYS	0
Not supported	1

13.2 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

13.3 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

13.4 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

13.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

13.6 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

13.7 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

13.8 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

13.9 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

13.10 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()

13.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- raise()
- signal()

13.12 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

13.13 <stdatomic.h>

The following methods and variables in <stdatomic.h> are supported:

- ATOMIC_VAR_INIT()
- atomic_compare_exchange_strong()
- atomic_compare_exchange_strong_explicit()
- atomic_compare_exchange_weak()
- atomic_compare_exchange_weak_explicit()
- atomic_exchange()
- atomic_exchange_explicit()
- atomic_fetch_key()
- atomic_fetch_key_explicit()
- atomic_flag_clear()
- atomic_flag_clear_explicit()
- atomic_flag_test_and_set()
- atomic_flag_test_and_set_explicit()
- atomic_init()
- atomic_is_lock_free()
- atomic_load()
- atomic_load_explicit()
- atomic_signal_fence()
- atomic_store()
- atomic_store_explicit()
- atomic_thread_fence()

13.14 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

13.15 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

13.16 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fsetpos()
- ftell()
- fwrite()
- getc()
- getchar()
- perror()
- printf()
- putc()
- putchar()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()

- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

13.17 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abs()
- aligned_alloc()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mktime()
- qsort()
- quick_exit()
- rand()
- realloc()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()

- strtoll()
- strtoul()
- strtoull()
- wcstombs()
- wctomb()

13.18 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strxfrm()

13.19 <threads.h>

The following methods and variables in <threads.h> are supported:

- call_once()
- cnd_broadcast()
- cnd_destroy()
- cnd_init()
- cnd_signal()
- cnd_timedwait()
- cnd_wait()
- mtx_destroy()
- mtx_init()
- mtx_lock()
- mtx_timedlock()
- mtx_trylock()
- mtx_unlock()
- thrd_create()
- thrd_current()
- thrd_detach()
- thrd_equal()
- thrd_exit()
- thrd_join()
- thrd_sleep()
- thrd_yield()
- tss_create()
- tss_delete()
- tss_get()
- tss_set()

13.20 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- clock()
- ctime()
- difftime()
- gmtime()
- localtime()
- strftime()
- time()

13.21 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcrtomb()
- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscpy()
- wcscspn()

- wcsftime()
- wcslen()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcsxfrm()
- wctob()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

13.22 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()
- wctrans()
- wctype()

CHAPTER

FOURTEEN

C17 STANDARD LIBRARY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

14.1 Summary

The follow table summarizes alignment with the C17 Standard Library standard:

Supported	526
ENOSYS	1
Not supported	1

14.2 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

14.3 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

14.4 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

14.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

14.6 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

14.7 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

14.8 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

14.9 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

14.10 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()

14.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- raise()
- signal()

14.12 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

14.13 <stdatomic.h>

The following methods and variables in <stdatomic.h> are supported:

- ATOMIC_VAR_INIT()
- atomic_compare_exchange_strong()
- atomic_compare_exchange_strong_explicit()
- atomic_compare_exchange_weak()
- atomic_compare_exchange_weak_explicit()
- atomic_exchange()
- atomic_exchange_explicit()
- atomic_fetch_key()
- atomic_fetch_key_explicit()
- atomic_flag_clear()
- atomic_flag_clear_explicit()
- atomic_flag_test_and_set()
- atomic_flag_test_and_set_explicit()
- atomic_init()
- atomic_is_lock_free()
- atomic_load()
- atomic_load_explicit()
- atomic_signal_fence()
- atomic_store()
- atomic_store_explicit()
- atomic_thread_fence()

14.14 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

14.15 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fsetpos()
- ftell()
- fwrite()
- getc()
- getchar()
- perror()
- printf()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()

- sscanf()
- tmpfile()
- tmpnam()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

14.16 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abort()
- abs()
- aligned_alloc()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mblen()
- mbstowcs()
- mbtowc()
- mktime()
- qsort()
- quick_exit()
- rand()
- realloc()
- srand()
- strtod()
- strtof()
- strtol()

- strtold()
- strtoll()
- strtoul()
- strtoull()
- wcstombs()
- wctomb()

The following methods in <stdlib.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- system()

14.17 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strxfrm()

14.18 <threads.h>

The following methods and variables in <threads.h> are supported:

- call_once()
- cnd_broadcast()
- cnd_destroy()
- cnd_init()
- cnd_signal()
- cnd_timedwait()
- cnd_wait()
- mtx_destroy()
- mtx_init()
- mtx_lock()
- mtx_timedlock()
- mtx_trylock()
- mtx_unlock()
- thrd_create()
- thrd_current()
- thrd_detach()
- thrd_equal()
- thrd_exit()
- thrd_join()
- thrd_sleep()
- thrd_yield()
- tss_create()
- tss_delete()
- tss_get()
- tss_set()

14.19 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- clock()
- ctime()
- difftime()
- gmtime()
- localtime()
- strftime()
- time()

14.20 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcrtomb()
- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscpy()
- wcscspn()

- wcsftime()
- wcslen()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcsxfrm()
- wctob()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

14.21 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()
- wctrans()
- wctype()

CHAPTER

FIFTEEN

FACE TECHNICAL STANDARD, EDITION 2.1 SECURITY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

15.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 2.1 Security standard:

Supported	162
ENOSYS	1
Not supported	0

15.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

15.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

15.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

15.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

15.6 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- modf()
- pow()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()

15.7 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

15.8 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

15.9 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

15.10 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

15.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

15.12 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- div()
- labs()
- ldiv()
- malloc()
- rand_r()
- strtod()
- strtol()
- strtoul()

15.13 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

15.14 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mmap()
- shm_open()

15.15 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- shutdown()
- socket()

15.16 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- stat()

15.17 <time.h>

The following methods and variables in <time.h> are supported:

- clock_getres()
- clock_gettime()
- clock_settime()
- nanosleep()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()

15.18 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- alarm()
- ftruncate()
- pause()

CHAPTER

SIXTEEN

FACE TECHNICAL STANDARD, EDITION 2.1 SAFETY BASE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

16.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 2.1 Safety Base standard:

Supported	246
ENOSYS	1
Not supported	0

16.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

16.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

16.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

16.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

16.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

16.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- open()

16.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- modf()
- pow()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()

16.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()

16.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

16.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()
- pthread_equal()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_key_create()
- pthread_mutex_init()
- pthread_mutex_lock()

- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

16.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

16.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

16.14 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

16.15 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- fwrite()
- remove()
- rename()
- snprintf()

16.16 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- calloc()
- div()
- labs()
- ldiv()
- malloc()
- mktime()
- rand_r()
- strtod()
- strtol()
- strtoul()

16.17 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

16.18 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- shm_open()

16.19 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

16.20 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- shutdown()
- socket()

16.21 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()
- umask()

16.22 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- time()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

16.23 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- close()
- fsync()
- ftruncate()
- getcwd()
- gethostname()
- link()
- lseek()
- pause()
- read()
- rmdir()
- unlink()
- write()

CHAPTER

SEVENTEEN

FACE TECHNICAL STANDARD, EDITION 2.1 SAFETY EXTENDED

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

17.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 2.1 Safety Extended standard:

Supported	316
ENOSYS	11
Not supported	9

17.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

17.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

17.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

17.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

17.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

17.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

17.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- modf()
- pow()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()

17.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()

17.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

17.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()

- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

17.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

17.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

17.14 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- siglongjmp()
- sigsetjmp()

17.15 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

17.16 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()

17.17 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_end()
- va_start()

17.18 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- remove()
- rename()
- snprintf()
- sscanf()
- vfprintf()
- vsnprintf()

17.19 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- malloc()
- mktime()
- rand_r()
- realloc()
- strtod()
- strtol()
- strtoul()

17.20 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

17.21 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- shm_open()

17.22 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

17.23 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- shutdown()
- socket()

17.24 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

17.25 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- times()

17.26 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

17.27 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- waitpid()

17.28 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

17.29 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup2()
- environ
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getpgrp()
- getpid()
- getppid()
- getuid()
- link()
- lseek()
- pause()
- pipe()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sleep()
- sysconf()

- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()
- execv()
- execve()
- fork()

CHAPTER

EIGHTEEN

FACE TECHNICAL STANDARD, EDITION 2.1 GENERAL PURPOSE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

18.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 2.1 General Purpose standard:

Supported	773
ENOSYS	13
Not supported	25

18.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

18.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

18.4 <assert.h>

The following methods and variables in <assert.h> are supported:

- assert()

18.5 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

18.6 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

18.7 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

18.8 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

18.9 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

18.10 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

18.11 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

18.12 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

18.13 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

18.14 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

18.15 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

18.16 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

18.17 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

18.18 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_init()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()

- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getconcurrency()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()

- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_init()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setconcurrency()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

18.19 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

The following methods in <sched.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- sched_getparam()
- sched_getscheduler()
- sched_setparam()
- sched_setscheduler()

18.20 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

18.21 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

18.22 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

18.23 <spawn.h>

The following methods and variables in <spawn.h> are not supported:

- posix_spawn()
- posix_spawn_file_actions_addclose()
- posix_spawn_file_actions_adddup2()
- posix_spawn_file_actions_addopen()
- posix_spawn_file_actions_destroy()
- posix_spawn_file_actions_init()
- posix_spawnattr_destroy()
- posix_spawnattr_getflags()
- posix_spawnattr_getpgroup()
- posix_spawnattr_getschedparam()
- posix_spawnattr_getschedpolicy()
- posix_spawnattr_getsigdefault()
- posix_spawnattr_getsigmask()
- posix_spawnattr_init()
- posix_spawnattr_setflags()
- posix_spawnattr_setpgroup()
- posix_spawnattr_setschedparam()
- posix_spawnattr_setschedpolicy()
- posix_spawnattr_setsigdefault()
- posix_spawnattr_setsigmask()
- posix_spawnp()

18.24 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

18.25 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- perror()
- printf()

- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setbuf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

18.26 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- _Exit()
- abort()
- abs()
- atexit()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- exit()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mblen()
- mbtowc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()

- strtoll()
- strtoul()
- strtoull()
- unsetenv()
- wcstombs()
- wctomb()

18.27 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

18.28 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlock()
- mlockall()
- mmap()
- mprotect()
- msync()
- munlock()
- munlockall()
- munmap()
- shm_open()
- shm_unlink()

18.29 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

18.30 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

18.31 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

18.32 <sys/time.h>

The following methods and variables in <sys/time.h> are supported:

- times()

18.33 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

18.34 <sys/wait.h>

The following methods and variables in <sys/wait.h> are supported:

- wait()
- waitpid()

18.35 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

18.36 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- _exit()
- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin()
- getpgrp()
- getpid()
- getppid()
- getuid()
- link()
- lseek()
- pathconf()
- pause()
- pipe()
- read()
- rmdir()

- setegid()
- seteuid()
- setgid()
- setsid()
- setuid()
- sleep()
- sysconf()
- unlink()
- write()

The following methods in <unistd.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- execl()
- execle()
- execv()
- execve()
- fork()

The following methods and variables in <unistd.h> are not supported:

- confstr()

18.37 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()
- putwc()
- putwchar()
- swprintf()
- swscanf()
- ungetwc()
- vfwprintf()
- vfwscanf()
- vswprintf()
- vswscanf()
- vwprintf()
- vwscanf()
- wcrtomb()
- wcscat()
- wcschr()
- wcscmp()
- wcscoll()
- wcscpy()
- wcscspn()

- wcsftime()
- wcslen()
- wcsncat()
- wcsncmp()
- wcsncpy()
- wcspbrk()
- wcsrchr()
- wcsrtombs()
- wcsspn()
- wcsstr()
- wcstod()
- wcstof()
- wcstok()
- wcstol()
- wcstold()
- wcstoll()
- wcstoul()
- wcstoull()
- wcsxfrm()
- wctob()
- wmemchr()
- wmemcmp()
- wmemcpy()
- wmemmove()
- wmemset()
- wprintf()
- wscanf()

18.38 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()
- wctrans()
- wctype()

CHAPTER

NINETEEN

FACE TECHNICAL STANDARD, EDITION 3.0 SECURITY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

19.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.0 Security standard:

Supported	172
ENOSYS	1
Not supported	0

19.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

19.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

19.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

19.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

19.6 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

19.7 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

19.8 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

19.9 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

19.10 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

19.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

19.12 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

19.13 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

19.14 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- div()
- labs()
- ldiv()
- malloc()
- rand_r()
- strtod()
- strtol()
- strtoul()

19.15 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

19.16 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mmap()
- shm_open()

19.17 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

19.18 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- stat()

19.19 <time.h>

The following methods and variables in <time.h> are supported:

- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- nanosleep()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()

19.20 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- alarm()
- ftruncate()
- pause()

CHAPTER

TWENTY

FACE TECHNICAL STANDARD, EDITION 3.0 SAFETY BASE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

20.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.0 Safety Base standard:

Supported	254
ENOSYS	1
Not supported	0

20.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

20.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

20.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

20.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

20.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

20.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- open()

20.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

20.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()

20.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

20.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_key_create()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()

- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

20.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

20.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

20.14 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

20.15 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

20.16 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

20.17 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- fwrite()
- remove()
- rename()
- snprintf()

20.18 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- calloc()
- div()
- labs()
- ldiv()
- malloc()
- mktime()
- rand_r()
- strtod()
- strtol()
- strtoul()

20.19 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

20.20 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- shm_open()

20.21 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

20.22 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

20.23 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()
- umask()

20.24 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- time()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

20.25 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- close()
- fsync()
- ftruncate()
- getcwd()
- gethostname()
- link()
- lseek()
- pause()
- read()
- rmdir()
- unlink()
- write()

CHAPTER

TWENTYONE

FACE TECHNICAL STANDARD, EDITION 3.0 SAFETY EXTENDED

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

21.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.0 Safety Extended standard:

Supported	319
ENOSYS	2
Not supported	0

21.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

21.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

21.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

21.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

21.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

21.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

21.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

21.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

21.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

21.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()

- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

21.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

21.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

21.14 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- siglongjmp()
- sigsetjmp()

21.15 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

21.16 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

21.17 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

21.18 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

21.19 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- remove()
- rename()
- snprintf()
- sscanf()
- vfprintf()
- vsnprintf()

21.20 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- malloc()
- mktime()
- qsort()
- rand_r()
- realloc()
- strtod()
- strtol()
- strtoul()

21.21 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

21.22 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- mprotect()
- shm_open()

21.23 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

21.24 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- shutdown()
- socket()

21.25 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

21.26 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

21.27 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

21.28 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- chown()
- close()
- dup2()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getuid()
- link()
- lseek()
- pause()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sysconf()
- unlink()
- write()

CHAPTER

TWENTYTWO

FACE TECHNICAL STANDARD, EDITION 3.0 GENERAL PURPOSE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

22.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.0 General Purpose standard:

Supported	704
ENOSYS	4
Not supported	3

22.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

22.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

22.4 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

22.5 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

22.6 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

22.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

22.8 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

22.9 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

22.10 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

22.11 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()
- wcstoimax()
- wcstoumax()

22.12 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

22.13 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

22.14 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

22.15 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

22.16 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

22.17 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_init()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()

- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()

- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_init()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

22.18 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

22.19 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

22.20 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

22.21 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

22.22 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

22.23 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

22.24 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

22.25 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- perror()
- printf()

- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

22.26 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mblen()
- mbtowc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()

- unsetenv()
- wcstombs()
- wctomb()

22.27 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

22.28 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- mprotect()
- munmap()
- shm_open()
- shm_unlink()

22.29 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

22.30 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

22.31 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

22.32 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

22.33 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

22.34 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin_r()
- getuid()
- link()
- lseek()
- pathconf()
- pause()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sysconf()
- unlink()

- write()

22.35 <wchar.h>

The following methods and variables in <wchar.h> are supported:

- btowc()
- fgetwc()
- fgetws()
- fputwc()
- fputws()
- fwide()
- fwprintf()
- fwscanf()
- getwc()
- getwchar()
- mbrlen()
- mbrtowc()
- mbsinit()
- mbsrtowcs()

22.36 <wctype.h>

The following methods and variables in <wctype.h> are supported:

- iswalnum()
- iswalpha()
- iswblank()
- iswcntrl()
- iswctype()
- iswdigit()
- iswgraph()
- iswlower()
- iswprint()
- iswpunct()
- iswspace()
- iswupper()
- iswxdigit()
- towctrans()
- towlower()
- towupper()

CHAPTER

TWENTYTHREE

FACE TECHNICAL STANDARD, EDITION 3.1 SECURITY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

23.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.1 Security standard:

Supported	174
ENOSYS	1
Not supported	0

23.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

23.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

23.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

23.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

23.6 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

23.7 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

23.8 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

23.9 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

23.10 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

23.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

23.12 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

23.13 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

23.14 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- div()
- labs()
- ldiv()
- malloc()
- rand_r()
- strtod()
- strtol()
- strtoul()

23.15 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

23.16 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- shm_open()

23.17 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

23.18 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- stat()

23.19 <time.h>

The following methods and variables in <time.h> are supported:

- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- nanosleep()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()

23.20 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- alarm()
- ftruncate()
- gethostname()
- pause()

CHAPTER

TWENTYFOUR

FACE TECHNICAL STANDARD, EDITION 3.1 SAFETY BASE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

24.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.1 Safety Base standard:

Supported	254
ENOSYS	1
Not supported	0

24.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

24.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

24.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

24.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

24.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

24.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- open()

24.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

24.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()

24.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

24.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_key_create()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()

- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

24.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

24.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

24.14 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

24.15 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

24.16 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

24.17 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- fwrite()
- remove()
- rename()
- snprintf()

24.18 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- calloc()
- div()
- labs()
- ldiv()
- malloc()
- mktime()
- rand_r()
- strtod()
- strtol()
- strtoul()

24.19 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

24.20 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- shm_open()

24.21 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

24.22 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

24.23 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()
- umask()

24.24 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- time()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

24.25 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- close()
- fsync()
- ftruncate()
- getcwd()
- gethostname()
- link()
- lseek()
- pause()
- read()
- rmdir()
- unlink()
- write()

CHAPTER

TWENTYFIVE

FACE TECHNICAL STANDARD, EDITION 3.1 SAFETY EXTENDED

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

25.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.1 Safety Extended standard:

Supported	320
ENOSYS	2
Not supported	0

25.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

25.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

25.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

25.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

25.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

25.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

25.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

25.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

25.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

25.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()

- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

25.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

25.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

25.14 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- siglongjmp()
- sigsetjmp()

25.15 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

25.16 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

25.17 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

25.18 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

25.19 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- remove()
- rename()
- snprintf()
- sscanf()
- vfprintf()
- vsnprintf()

25.20 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- malloc()
- mktime()
- qsort()
- rand_r()
- realloc()
- strtod()
- strtol()
- strtoul()

25.21 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

25.22 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- mprotect()
- shm_open()

25.23 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

25.24 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- shutdown()
- socket()

25.25 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

25.26 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

25.27 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

25.28 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- chown()
- close()
- dup2()
- environ
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getuid()
- link()
- lseek()
- pause()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sysconf()
- unlink()
- write()

CHAPTER

TWENTYSIX

FACE TECHNICAL STANDARD, EDITION 3.1 GENERAL PURPOSE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

26.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.1 General Purpose standard:

Supported	673
ENOSYS	4
Not supported	5

26.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

26.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

26.4 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

26.5 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

26.6 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

26.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

26.8 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

26.9 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

26.10 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

26.11 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()

26.12 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

26.13 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

26.14 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

26.15 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

26.16 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

26.17 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_init()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()

- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()

- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_init()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

26.18 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

26.19 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

26.20 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

The following methods and variables in <setjmp.h> are not supported:

- _longjmp()
- _setjmp()

26.21 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

26.22 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

26.23 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

26.24 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

26.25 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- perror()
- printf()

- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

26.26 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()

26.27 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

26.28 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mlockall()
- mmap()
- mprotect()
- munmap()
- shm_open()
- shm_unlink()

26.29 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

26.30 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

26.31 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

26.32 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

26.33 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

26.34 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin_r()
- getuid()
- link()
- lseek()
- pathconf()
- pause()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sysconf()

- unlink()
- write()

CHAPTER

TWENTYSEVEN

FACE TECHNICAL STANDARD, EDITION 3.2 SECURITY

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

27.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.2 Security standard:

Supported	172
ENOSYS	1
Not supported	0

27.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

27.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

27.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

27.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

27.6 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

27.7 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

27.8 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

27.9 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

27.10 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

27.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

27.12 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

27.13 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

27.14 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- div()
- labs()
- ldiv()
- malloc()
- rand_r()
- strtod()
- strtol()
- strtoul()

27.15 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

27.16 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mmap()
- shm_open()

27.17 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

27.18 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- stat()

27.19 <time.h>

The following methods and variables in <time.h> are supported:

- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- nanosleep()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()

27.20 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- alarm()
- ftruncate()
- pause()

CHAPTER

TWENTYEIGHT

FACE TECHNICAL STANDARD, EDITION 3.2 SAFETY BASE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

28.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.2 Safety Base standard:

Supported	253
ENOSYS	1
Not supported	0

28.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

28.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

28.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

28.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

28.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

28.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- open()

28.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

28.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()

28.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

28.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()
- pthread_equal()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_key_create()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()

- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_getcpuclockid()

28.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_yield()

28.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_wait()

28.14 <signal.h>

The following methods and variables in <signal.h> are supported:

- pthread_sigmask()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

28.15 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

28.16 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

28.17 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- fwrite()
- remove()
- rename()
- snprintf()

28.18 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- calloc()
- div()
- labs()
- ldiv()
- malloc()
- mktime()
- rand_r()
- strtod()
- strtol()
- strtoul()

28.19 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

28.20 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mmap()
- shm_open()

28.21 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

28.22 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

28.23 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()
- umask()

28.24 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- time()
- timer_create()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

28.25 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- close()
- fsync()
- ftruncate()
- getcwd()
- gethostname()
- link()
- lseek()
- pause()
- read()
- rmdir()
- unlink()
- write()

CHAPTER

TWENTYNINE

FACE TECHNICAL STANDARD, EDITION 3.2 SAFETY EXTENDED

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

29.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.2 Safety Extended standard:

Supported	319
ENOSYS	2
Not supported	0

29.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

29.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

29.4 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

29.5 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

29.6 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

29.7 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

29.8 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- isinf()
- isnan()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

29.9 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

29.10 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- freeaddrinfo()
- getaddrinfo()
- getnameinfo()

29.11 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_create()

- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

29.12 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

29.13 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

29.14 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- siglongjmp()
- sigsetjmp()

29.15 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- sigpending()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

29.16 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

29.17 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

29.18 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

29.19 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fread()
- freopen()
- fseek()
- fseeko()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- remove()
- rename()
- snprintf()
- sscanf()
- vfprintf()
- vsnprintf()

29.20 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- malloc()
- mktime()
- qsort()
- rand_r()
- realloc()
- strtod()
- strtol()
- strtoul()

29.21 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok_r()

29.22 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mmap()
- mprotect()
- shm_open()

29.23 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

29.24 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- shutdown()
- socket()

29.25 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

29.26 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

29.27 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime_r()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

29.28 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- chown()
- close()
- dup2()
- environ
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getuid()
- link()
- lseek()
- pause()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sysconf()
- unlink()
- write()

CHAPTER

THIRTY

FACE TECHNICAL STANDARD, EDITION 3.2 GENERAL PURPOSE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

30.1 Summary

The follow table summarizes alignment with the FACE Technical Standard, Edition 3.2 General Purpose standard:

Supported	672
ENOSYS	4
Not supported	5

30.2 <aio.h>

The following methods and variables in <aio.h> are supported:

- aio_cancel()
- aio_error()
- aio_fsync()
- aio_read()
- aio_return()
- aio_write()
- lio_listio()

The following methods in <aio.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- aio_suspend()

30.3 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- inet_addr()
- inet_ntoa()
- inet_ntop()
- inet_pton()
- ntohl()
- ntohs()

30.4 <complex.h>

The following methods and variables in <complex.h> are supported:

- cabs()
- cabsf()
- cabsl()
- cacos()
- cacosf()
- cacosh()
- cacoshf()
- cacoshl()
- cacosl()
- carg()
- cargf()
- cargl()
- casin()
- casinf()
- casinh()
- casinhf()
- casinhl()
- casinl()
- catan()
- catanf()
- catanh()
- catanhf()
- catanhl()
- catanl()
- ccos()
- ccosf()
- ccosh()
- ccoshf()
- ccoshl()
- ccosl()
- cexp()
- cexpf()

- cexpl()
- cimag()
- cimagf()
- cimagl()
- clog()
- clogf()
- clogl()
- conj()
- conjf()
- conjl()
- cpow()
- cpowf()
- cpowl()
- cproj()
- cprojf()
- cprojl()
- creal()
- crealf()
- creall()
- csin()
- csinf()
- csinh()
- csinhf()
- csinhl()
- csinl()
- csqrt()
- csqrtf()
- csqrtl()
- ctan()
- ctanf()
- ctanh()
- ctanhf()
- ctanhl()
- ctanl()

30.5 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

30.6 <devctl.h>

The following methods and variables in <devctl.h> are supported:

- posix_devctl()

30.7 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

30.8 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

30.9 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- fcntl()
- open()

30.10 <fenv.h>

The following methods and variables in <fenv.h> are supported:

- feclearexcept()
- fegetenv()
- fegetexceptflag()
- fegetround()
- feholdexcept()
- feraiseexcept()
- fesetenv()
- fesetexceptflag()
- fesetround()
- fetestexcept()
- feupdateenv()

30.11 <inttypes.h>

The following methods and variables in <inttypes.h> are supported:

- imaxabs()
- imaxdiv()
- strtoimax()
- strtoumax()

30.12 <locale.h>

The following methods and variables in <locale.h> are supported:

- localeconv()
- setlocale()

30.13 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosf()
- acosh()
- acoshf()
- acoshl()
- acosl()
- asin()
- asinf()
- asinh()
- asinhf()
- asinhl()
- asinl()
- atan()
- atan2()
- atan2f()
- atan2l()
- atanf()
- atanh()
- atanhf()
- atanhl()
- atanl()
- cbrt()
- cbrtf()
- cbrtl()
- ceil()
- ceilf()
- ceill()
- copysign()
- copysignf()
- copysignl()
- cos()
- cosf()

- cosh()
- coshf()
- coshl()
- cosl()
- erf()
- erfc()
- erfcf()
- erfcl()
- erff()
- erfl()
- exp()
- exp2()
- exp2f()
- exp2l()
- expf()
- expl()
- expm1()
- expm1f()
- expm1l()
- fabs()
- fabsf()
- fabsl()
- fdim()
- fdimf()
- fdiml()
- floor()
- floorf()
- floorl()
- fma()
- fmaf()
- fmal()
- fmax()
- fmaxf()
- fmaxl()

- fmin()
- fminf()
- fminl()
- fmod()
- fmodf()
- fmodl()
- fpclassify()
- frexp()
- frexpf()
- frexpl()
- hypot()
- hypotf()
- hypotl()
- ilogb()
- ilogbf()
- ilogbl()
- isfinite()
- isgreater()
- isgreaterequal()
- isinf()
- isless()
- islessequal()
- islessgreater()
- isnan()
- isnormal()
- isunordered()
- ldexp()
- ldexpf()
- ldexpl()
- lgamma()
- lgammaf()
- lgammal()
- llrint()
- llrintf()

- llrintl()
- llround()
- llroundf()
- llroundl()
- log()
- log10()
- log10f()
- log10l()
- log1p()
- log1pf()
- log1pl()
- log2()
- log2f()
- log2l()
- logb()
- logbf()
- logbl()
- logf()
- logl()
- lrint()
- lrintf()
- lrintl()
- lround()
- lroundf()
- lroundl()
- modf()
- modff()
- modfl()
- nan()
- nanf()
- nanl()
- nearbyint()
- nearbyintf()
- nearbyintl()

- nextafter()
- nextafterf()
- nextafterl()
- nexttoward()
- nexttowardf()
- nexttowardl()
- pow()
- powf()
- powl()
- remainder()
- remainderf()
- remainderl()
- remquo()
- remquof()
- remquol()
- rint()
- rintf()
- rintl()
- round()
- roundf()
- roundl()
- scalbln()
- scalblnf()
- scalblnl()
- scalbn()
- scalbnf()
- scalbnl()
- sin()
- sinf()
- sinh()
- sinhf()
- sinhl()
- sinl()
- sqrt()

- sqrtf()
- sqrtl()
- tan()
- tanf()
- tanh()
- tanhf()
- tanhl()
- tanl()
- tgamma()
- tgammaf()
- tgammal()
- trunc()
- truncf()
- truncl()

The following methods and variables in <math.h> are not supported:

- signbit()

30.14 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_timedreceive()
- mq_timedsend()
- mq_unlink()

30.15 <net/if.h>

The following methods and variables in <net/if.h> are supported:

- if_freenameindex()
- if_indextoname()
- if_nameindex()
- if_nametoindex()

30.16 <netdb.h>

The following methods and variables in <netdb.h> are supported:

- endhostent()
- endnetent()
- endprotoent()
- endservent()
- freeaddrinfo()
- gai_strerror()
- getaddrinfo()
- gethostent()
- getnameinfo()
- getnetbyaddr()
- getnetbyname()
- getnetent()
- getprotobyname()
- getprotobynumber()
- getprotoent()
- getservbyname()
- getservbyport()
- getservent()
- sethostent()
- setnetent()
- setprotoent()
- setservent()

30.17 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstacksize()
- pthread_barrier_destroy()
- pthread_barrier_init()
- pthread_barrier_wait()
- pthread_barrierattr_destroy()
- pthread_barrierattr_init()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()

- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()
- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()

- pthread_rwlock_destroy()
- pthread_rwlock_init()
- pthread_rwlock_rdlock()
- pthread_rwlock_timedrdlock()
- pthread_rwlock_timedwrlock()
- pthread_rwlock_tryrdlock()
- pthread_rwlock_trywrlock()
- pthread_rwlock_unlock()
- pthread_rwlock_wrlock()
- pthread_rwlockattr_destroy()
- pthread_rwlockattr_init()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setschedprio()
- pthread_setspecific()
- pthread_testcancel()

The following methods in <pthread.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- pthread_atfork()
- pthread_getcpuclockid()

30.18 <sched.h>

The following methods and variables in <sched.h> are supported:

- sched_get_priority_max()
- sched_get_priority_min()
- sched_rr_get_interval()
- sched_yield()

30.19 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

30.20 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()
- siglongjmp()
- sigsetjmp()

The following methods and variables in <setjmp.h> are not supported:

- _longjmp()
- _setjmp()

30.21 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigqueue()
- sigsuspend()
- sigtimedwait()
- sigwait()
- sigwaitinfo()

30.22 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

30.23 <stddef.h>

The following methods and variables in <stddef.h> are supported:

- offsetof()

30.24 <stdint.h>

The following methods and variables in <stdint.h> are supported:

- INTMAX_C()
- INTN_C()
- UINTMAX_C()
- UINTN_C()

30.25 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgetpos()
- fgets()
- fileno()
- flockfile()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- fsetpos()
- ftell()
- ftello()
- ftrylockfile()
- funlockfile()
- fwrite()
- getc()
- getc_unlocked()
- getchar()
- getchar_unlocked()
- perror()
- printf()

- putc()
- putc_unlocked()
- putchar()
- putchar_unlocked()
- puts()
- remove()
- rename()
- rewind()
- scanf()
- setvbuf()
- snprintf()
- sprintf()
- sscanf()
- stderr
- stdin
- stdout
- tmpfile()
- ungetc()
- vfprintf()
- vfscanf()
- vprintf()
- vscanf()
- vsnprintf()
- vsprintf()
- vsscanf()

30.26 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- atoll()
- bsearch()
- calloc()
- div()
- free()
- getenv()
- labs()
- ldiv()
- llabs()
- lldiv()
- malloc()
- mktime()
- qsort()
- rand()
- rand_r()
- realloc()
- setenv()
- srand()
- strtod()
- strtof()
- strtol()
- strtold()
- strtoll()
- strtoul()
- strtoull()
- unsetenv()

30.27 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strcat()
- strchr()
- strcmp()
- strcoll()
- strcpy()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

30.28 <sys/mman.h>

The following methods and variables in <sys/mman.h> are supported:

- mmap()
- mprotect()
- munmap()
- shm_open()
- shm_unlink()

30.29 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- FD_CLR()
- FD_ISSET()
- FD_SET()
- FD_ZERO()
- select()

The following methods and variables in <sys/select.h> are not supported:

- pselect()

30.30 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getpeername()
- getsockname()
- getsockopt()
- listen()
- recv()
- recvfrom()
- recvmsg()
- send()
- sendmsg()
- sendto()
- setsockopt()
- shutdown()
- socket()
- socketpair()

The following methods and variables in <sys/socket.h> are not supported:

- sockatmark()

30.31 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- chmod()
- fchmod()
- fstat()
- lstat()
- mkdir()
- mkfifo()
- stat()
- umask()

30.32 <sys/utsname.h>

The following methods and variables in <sys/utsname.h> are supported:

- uname()

30.33 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_nanosleep()
- clock_settime()
- ctime_r()
- difftime()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()
- tzname
- tzset()

The following methods in <time.h> are implemented as stubs returning -1 and setting errno to ENOSYS:

- clock_getcpuclockid()

30.34 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- alarm()
- chdir()
- chown()
- close()
- dup()
- dup2()
- environ
- fchown()
- fdatasync()
- fpathconf()
- fsync()
- ftruncate()
- getcwd()
- getegid()
- geteuid()
- getgid()
- getgroups()
- gethostname()
- getlogin_r()
- getuid()
- link()
- lseek()
- pathconf()
- pause()
- read()
- rmdir()
- setegid()
- seteuid()
- setgid()
- setuid()
- sysconf()

- unlink()
- write()

CHAPTER

THIRTYONE

SOFTWARE COMMUNICATIONS ARCHITECTURE 2.2.2 AEP

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

31.1 Summary

The follow table summarizes alignment with the Software Communications Architecture 2.2.2 AEP standard:

Supported	243
ENOSYS	0
Not supported	0

31.2 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

31.3 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

31.4 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- open()

31.5 <locale.h>

The following methods and variables in <locale.h> are supported:

- setlocale()

31.6 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- asin()
- atan()
- atan2()
- ceil()
- cos()
- cosh()
- exp()
- fabs()
- floor()
- fmod()
- frexp()
- ldexp()
- log()
- log10()
- modf()
- pow()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()

31.7 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getguardsize()
- pthread_attr_getinheritsched()
- pthread_attr_getschedparam()
- pthread_attr_getschedpolicy()
- pthread_attr_getscope()
- pthread_attr_getstack()
- pthread_attr_getstackaddr()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setdetachstate()
- pthread_attr_setguardsize()
- pthread_attr_setinheritsched()
- pthread_attr_setschedparam()
- pthread_attr_setschedpolicy()
- pthread_attr_setscope()
- pthread_attr_setstack()
- pthread_attr_setstackaddr()
- pthread_attr_setstacksize()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_getclock()
- pthread_condattr_getpshared()

- pthread_condattr_init()
- pthread_condattr_setclock()
- pthread_condattr_setpshared()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_getprioceiling()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_setprioceiling()
- pthread_mutex_timedlock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_destroy()
- pthread_mutexattr_getprioceiling()
- pthread_mutexattr_getprotocol()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_gettype()
- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_setprotocol()
- pthread_mutexattr_setpshared()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()

- pthread_setschedparam()
- pthread_setspecific()
- pthread_testcancel()

31.8 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_trywait()
- sem_unlink()
- sem_wait()

31.9 <setjmp.h>

The following methods and variables in <setjmp.h> are supported:

- longjmp()
- setjmp()

31.10 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigsuspend()
- sigwait()

31.11 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- ftell()
- ftello()
- fwrite()
- getc()
- getchar()
- gets()
- perror()
- printf()
- putc()
- putchar()
- puts()
- remove()
- rename()
- rewind()

- scanf()
- setbuf()
- setvbuf()
- sprintf()
- sscanf()
- tmpfile()
- tmpnam()
- ungetc()

31.12 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- free()
- malloc()
- qsort()
- rand()
- rand_r()
- realloc()
- srand()

31.13 <string.h>

The following methods and variables in <string.h> are supported:

- strcat()
- strchr()
- strcmp()
- strcpy()
- strcspn()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()

31.14 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()

31.15 <time.h>

The following methods and variables in <time.h> are supported:

- asctime()
- asctime_r()
- clock_getres()
- clock_gettime()
- clock_settime()
- ctime()
- ctime_r()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()

31.16 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- chdir()
- close()
- fpathconf()
- getcwd()
- link()
- lseek()
- pathconf()
- pause()
- read()
- rmdir()
- unlink()
- write()

31.17 <utime.h>

The following methods and variables in <utime.h> are supported:

- utime()

CHAPTER

THIRTYTWO

SOFTWARE COMMUNICATIONS ARCHITECTURE 4.1 ULTRA LIGHTWEIGHT APPLICATION ENVIRONMENT PROFILE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

32.1 Summary

The follow table summarizes alignment with the Software Communications Architecture 4.1 Ultra Lightweight Application Environment Profile standard:

Supported	22
ENOSYS	0
Not supported	0

32.2 <math.h>

The following methods and variables in <math.h> are supported:

- exp()
- exp2()

32.3 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_open()
- mq_receive()
- mq_send()

32.4 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_create()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_unlock()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_settype()
- pthread_self()

32.5 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_init()
- sem_post()
- sem_wait()

32.6 <time.h>

The following methods and variables in <time.h> are supported:

- clock_getres()
- clock_gettime()
- timer_create()
- timer_settime()

CHAPTER

THIRTYTHREE

SOFTWARE COMMUNICATIONS ARCHITECTURE 4.1 LIGHTWEIGHT APPLICATION ENVIRONMENT PROFILE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

33.1 Summary

The follow table summarizes alignment with the Software Communications Architecture 4.1 Lightweight Application Environment Profile standard:

Supported	110
ENOSYS	0
Not supported	0

33.2 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

33.3 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- open()

33.4 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

33.5 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_open()
- mq_receive()
- mq_send()

33.6 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getschedparam()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_wait()
- pthread_create()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_unlock()
- pthread_mutexattr_getpshared()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_settype()
- pthread_self()

33.7 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_getvalue()
- sem_init()
- sem_post()
- sem_wait()

33.8 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- sscanf()

33.9 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abs()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- free()
- malloc()
- qsort()
- rand()
- realloc()
- srand()

33.10 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strchr()
- strcmp()
- strcspn()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()

33.11 <time.h>

The following methods and variables in <time.h> are supported:

- clock_getres()
- clock_gettime()
- gmtime()
- localtime()
- strftime()
- time()
- timer_create()
- timer_gettime()
- timer_settime()

33.12 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- close()
- read()
- write()

CHAPTER

THIRTYFOUR

SOFTWARE COMMUNICATIONS ARCHITECTURE 4.1 [FULL] APPLIATION ENVIRONMENT PROFILE

This chapter has a subsection per header file to detail the methods provided by RTEMS that are in that header file.

34.1 Summary

The follow table summarizes alignment with the Software Communications Architecture 4.1 [Full] Appliation Environment Profile standard:

Supported	255
ENOSYS	0
Not supported	0

34.2 <arpa/inet.h>

The following methods and variables in <arpa/inet.h> are supported:

- htonl()
- htons()
- ntohl()
- ntohs()

34.3 <ctype.h>

The following methods and variables in <ctype.h> are supported:

- isalnum()
- isalpha()
- isblank()
- iscntrl()
- isdigit()
- isgraph()
- islower()
- isprint()
- ispunct()
- isspace()
- isupper()
- isxdigit()
- tolower()
- toupper()

34.4 <dirent.h>

The following methods and variables in <dirent.h> are supported:

- closedir()
- opendir()
- readdir()
- readdir_r()
- rewinddir()

34.5 <errno.h>

The following methods and variables in <errno.h> are supported:

- errno

34.6 <fcntl.h>

The following methods and variables in <fcntl.h> are supported:

- creat()
- open()

34.7 <math.h>

The following methods and variables in <math.h> are supported:

- acos()
- acosh()
- asin()
- asinh()
- atan()
- atan2()
- atanh()
- ceil()
- cos()
- cosh()
- exp()
- exp2()
- fabs()
- floor()
- fmod()
- frexp()
- ldexp()
- log()
- log10()
- log2()
- modf()
- pow()
- round()
- sin()
- sinh()
- sqrt()
- tan()
- tanh()
- trunc()

34.8 <mqueue.h>

The following methods and variables in <mqueue.h> are supported:

- mq_close()
- mq_getattr()
- mq_notify()
- mq_open()
- mq_receive()
- mq_send()
- mq_setattr()
- mq_unlink()

34.9 <pthread.h>

The following methods and variables in <pthread.h> are supported:

- pthread_attr_destroy()
- pthread_attr_getdetachstate()
- pthread_attr_getschedparam()
- pthread_attr_getstacksize()
- pthread_attr_init()
- pthread_attr_setinheritsched()
- pthread_cancel()
- pthread_cleanup_pop()
- pthread_cleanup_push()
- pthread_cond_broadcast()
- pthread_cond_destroy()
- pthread_cond_init()
- pthread_cond_signal()
- pthread_cond_timedwait()
- pthread_cond_wait()
- pthread_condattr_destroy()
- pthread_condattr_init()
- pthread_create()
- pthread_detach()
- pthread_equal()
- pthread_exit()
- pthread_getschedparam()
- pthread_getspecific()
- pthread_join()
- pthread_key_create()
- pthread_key_delete()
- pthread_mutex_destroy()
- pthread_mutex_init()
- pthread_mutex_lock()
- pthread_mutex_trylock()
- pthread_mutex_unlock()
- pthread_mutexattr_getpshared()

- pthread_mutexattr_init()
- pthread_mutexattr_setprioceiling()
- pthread_mutexattr_settype()
- pthread_once()
- pthread_self()
- pthread_setcancelstate()
- pthread_setcanceltype()
- pthread_setschedparam()
- pthread_setspecific()
- pthread_testcancel()

34.10 <semaphore.h>

The following methods and variables in <semaphore.h> are supported:

- sem_close()
- sem_destroy()
- sem_getvalue()
- sem_init()
- sem_open()
- sem_post()
- sem_timedwait()
- sem_trywait()
- sem_unlink()
- sem_wait()

34.11 <signal.h>

The following methods and variables in <signal.h> are supported:

- kill()
- pthread_kill()
- pthread_sigmask()
- raise()
- sigaction()
- sigaddset()
- sigdelset()
- sigemptyset()
- sigfillset()
- sigismember()
- signal()
- sigpending()
- sigprocmask()
- sigsuspend()
- sigwait()

34.12 <stdarg.h>

The following methods and variables in <stdarg.h> are supported:

- va_arg()
- va_copy()
- va_end()
- va_start()

34.13 <stdio.h>

The following methods and variables in <stdio.h> are supported:

- clearerr()
- fclose()
- fdopen()
- feof()
- ferror()
- fflush()
- fgetc()
- fgets()
- fileno()
- fopen()
- fprintf()
- fputc()
- fputs()
- fread()
- freopen()
- fscanf()
- fseek()
- fseeko()
- ftell()
- ftello()
- fwrite()
- getc()
- getchar()
- perror()
- printf()
- putc()
- putchar()
- remove()
- rename()
- rewind()
- setbuf()
- setvbuf()

- snprintf()
- sscanf()
- ungetc()
- vsnprintf()

34.14 <stdlib.h>

The following methods and variables in <stdlib.h> are supported:

- abort()
- abs()
- atof()
- atoi()
- atol()
- bsearch()
- calloc()
- free()
- labs()
- malloc()
- qsort()
- rand()
- rand_r()
- realloc()
- srand()
- strtod()
- strtol()
- strtoul()

34.15 <string.h>

The following methods and variables in <string.h> are supported:

- memchr()
- memcmp()
- memcpy()
- memmove()
- memset()
- strchr()
- strcmp()
- strcoll()
- strcspn()
- strerror()
- strerror_r()
- strlen()
- strncat()
- strncmp()
- strncpy()
- strpbrk()
- strrchr()
- strspn()
- strstr()
- strtok()
- strtok_r()
- strxfrm()

34.16 <sys/select.h>

The following methods and variables in <sys/select.h> are supported:

- select()

34.17 <sys/socket.h>

The following methods and variables in <sys/socket.h> are supported:

- accept()
- bind()
- connect()
- getsockopt()
- listen()
- recv()
- recvfrom()
- send()
- sendto()
- setsockopt()
- socket()

34.18 <sys/stat.h>

The following methods and variables in <sys/stat.h> are supported:

- fstat()
- mkdir()
- stat()

34.19 <time.h>

The following methods and variables in <time.h> are supported:

- asctime_r()
- clock_getres()
- clock_gettime()
- clock_settime()
- ctime_r()
- gmtime()
- gmtime_r()
- localtime()
- localtime_r()
- nanosleep()
- strftime()
- time()
- timer_create()
- timer_delete()
- timer_getoverrun()
- timer_gettime()
- timer_settime()

34.20 <unistd.h>

The following methods and variables in <unistd.h> are supported:

- access()
- chdir()
- close()
- fpathconf()
- getcwd()
- link()
- lseek()
- pathconf()
- pause()
- read()
- rmdir()
- unlink()
- write()

CHAPTER

THIRTYFIVE

GLOSSARY

POSIX
Portable Operating System Interface is a family of standards specified by the IEEE Computer Society for maintaining compatibility between operating systems.

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P

POSIX, **1325**