

I INDEX

Symbols

@ filename (command file) compiler switch [2-14](#)

A

-A (assert) compiler switch [2-14](#)

abend (see abort function)

abort (abnormal program end) function [3-18](#)

abs (absolute value) function [3-19](#)

acos (arc cosine) function [3-20](#)

activation record [2-72](#)

aggregate assignment support (compiler) [2-60](#)

aggregate constructor expression support [2-60](#)

allocate memory (see calloc, free, malloc, realloc functions)

alphanumeric character test (see isalnum function)

alter macro [2-88](#)

-alttok (alternative tokens) compiler switch [2-14](#)

-analog (Analog C compilation) compiler switch [2-15](#)

-ansi (ANSI standard C compilation) compiler switch [2-15](#)

ANSI C extensions [A-4](#)

ANSI standard compiler [2-15](#), [2-18](#)

array search, binary (see bsearch function)

ASCII string (see atof, atoi, atol functions)

asin (arc sine) function [3-21](#)

asm compiler keyword [2-37](#)

asm compiler keyword (see inline assembly language support keyword (asm))

asm_sprt.h – mixed C/assembly support [2-87](#), [3-6](#)

assembler (easm218x), definition of [2-93](#)

assembly language subroutines [2-83](#)

assignments [2-52](#)

atan (arc tangent) function [3-22](#)

atan2 (arc tangent of quotient) function [3-23](#)

atexit (select exit function) function [3-24](#)

atof (convert string to double) function [3-25](#)

atoi (convert string to integer) function [3-26](#)

atol (convert string to long integer)

INDEX

function 3-27
automatic variables 2-50

B

binary array search (see bsearch
function)
biquad (biquad filter) function 3-28
bool (see Boolean type support
keywords (bool, true, false))
Boolean type support keywords (bool,
true, false) 2-37, 2-56
bsearch (binary search in sorted array)
function 3-31
-build-lib (build library) compiler
switch 2-16
builtin functions 2-62, 2-63

C

-C (comments) compiler switch 2-16
-c (compile only) compiler switch 2-16
C compiler and C run-time library A-3
C language extensions 2-37
aggregate assignments 2-60
asm keyword 2-40
bool keyword 2-56
C++-style comments 2-38
compound statements 2-58
false keyword 2-37
indexed initializers 2-59
inline keyword 2-39
non-constant initializers 2-58
segment keyword 2-37
true keyword 2-37

C run-time environment
see also C Run-time library
C run-time environment, definition of
2-93
C run-time library
guide 3-2
reference section 3-11
C++-style comments 2-62
C/assembly interface, *see* mixed
C/assembly programming)
calling library functions 3-2
calloc (allocate and initialize memory)
function 3-33
cc218x (ANSI C ADSP-218x C
compiler), definition of 2-93
ceil (ceiling) function 3-34
character string search (see strchr
function)
character string search, recursive (see
strrchr function)
circular buffer length registers 2-79
clear_interrupt (clear a pending signal)
function 3-35
clock (count clock ticks) function 3-38
compatibility call 2-92
compiler
c extensions 2-37
glossary 2-93
intrinsic functions 2-62
language extensions 2-3
legacy support A-1–A-9
reference 2-70

compiler command-line switches

- @ filename (command file) [2-14](#)
- 21{part number} [2-14](#)
- a (assert) [2-14](#)
- alttok (alternative tokens) [2-14](#)
- analog (analog c compilation) [2-15](#)
- ansi (ISO/ANSI standard C compilation) [2-15](#)
- build-lib (build library) [2-16](#)
- C (comments) [2-16](#)
- c (compile only) [2-16](#)
- default-linkage- (assembler linkage) [2-17](#)
- Dmacro (define macro) [2-16](#)
- dry (verbose dry-run) [2-17](#)
- dryrun (terse dry-run) [2-17](#)
- E (stop after preprocessing) [2-17](#)
- EE (run after preprocessing) [2-18](#)
- extra-keywords [2-18](#)
- flags (command-line input) [2-18](#)
- g (generate debug information) [2-18](#)
- H (list headers) [2-19](#)
- h[elp] (command-line help) [2-19](#)
- HH (list headers and compile) [2-19](#)
- I directory (include search directory) [2-19](#)
- include filename (include file) [2-20](#)
- jump-{dm|pm} (select jump table memory type) [2-20](#)
- L (library search directory) [2-20](#)
- l (link library) [2-20](#)
- M (generate make rules only) [2-21](#)
- make-autostatic (make automatic variables static) [2-21](#)
- map (generate a memory map) [2-21](#)
- no_hardware_pc_stack [2-23](#)
- no-alttok (disable tokens) [2-21](#)
- no-builtin (no built-in functions) [2-22](#)
- no-defs (disable defaults) [2-22](#)
- no-extra-keywords (disable short-form keywords) [2-22](#)
- no-inline (disable inline keyword) [2-23](#)
- no-std-def (disable standard macro definitions) [2-23](#)
- nostd-inc (disable standard include search) [2-23](#)
- no-std-lib (disable standard library search) [2-24](#)
- O (enable optimizations) [2-24](#)
- o (output file) [2-24](#)
- Os (optimize for size) [2-24](#)
- P (omit line numbers) [2-24](#)
- path (tool location) [2-25](#)
- path-install directory (installation location) [2-25](#)
- path-output (non-temporary files location) [2-25](#)
- path-temp (temporary files location) [2-25](#)
- pedantic (ANSI standard warnings)

INDEX

- [2-25](#)
- pedantic-errors (ANSI C errors) [2-26](#)
- pplist (preprocessor listing) [2-26](#)
- proc identifier [2-26](#)
- R (add source directory) [2-27](#)
- R- (disable source path) [2-27](#)
- reserve (reserve register) [2-27](#)
- S (stop after compilation) [2-28](#)
- s (strip debugging information) [2-28](#)
- save-temps (save intermediate files) [2-28](#)
- show (display command line) [2-28](#)
- signed-char (make char signed) [2-28](#)
- syntax-only (just check syntax) [2-29](#)
- sysdefs (system definitions) [2-29](#)
- T (linker description file) [2-29](#)
- time (time the compiler) [2-29](#)
- traditional (traditional C compilation) [2-30](#)
- Umacro (undefine macro) [2-30](#)
- unsigned-char (make char unsigned) [2-30](#)
- v (version and verbose) [2-30](#)
- verbose (display command line) [2-31](#)
- version (display version) [2-31](#)
- w (display all warnings) [2-31](#)
- W (override error messages) [2-31](#)
- warns-protos (prototypes warning) [2-31](#)
- Wdriver-limit (maximum process errors) [2-32](#)
- Werror-limit (maximum compiler errors) [2-32](#)
- Wremarks (enable diagnostic warnings) [2-32](#)
- write-files (enable driver I/O redirection) [2-32](#)
- Wterse (terse warnings) [2-32](#)
- xref file (cross-reference list) [2-33](#)
- compiler diagnostics [A-4](#)
- compiler obsolete/modified switches [A-5](#)
- compound statements with in expressions support (compiler) [2-58](#)
- const keyword [2-30](#)
- control character test (see iscntrl function)
- controlling interrupts [2-64](#)
- convert
 - characters (see tolower, toupper functions)
 - strings (see atof, atoi, atol, strtok, strtol, strtoul, functions)
- copysign [3-37](#)
- cos (cosine) function [3-38](#)
- cosh (hyperbolic cosine) function [3-39](#)
- C-type functions
 - isalnum [3-69](#)
 - iscntrl [3-71](#)
 - isgraph [3-73](#)
 - islower [3-74](#), [3-76](#)
 - isprint [3-79](#)
 - ispunct [3-80](#)
 - isspace [3-81](#)
 - isupper [3-82](#)
 - isxdigit [3-83](#)
 - tolower [3-153](#)
 - toupper [3-154](#)

customer support [1-2](#)

D

-D (define macro) compiler switch
[2-16, 2-30](#)
 data registers, definition of [2-93](#)
 deallocate memory (see free function)
 debugging information [2-28](#)
 dedicated registers [2-78](#)
 dedicated registers, definition of [2-93](#)
 -default-linkage- (assembler linkage)
 compiler switch [2-17](#)
 demean_buffer (remove mean of data
 buffer) function [3-40](#)
 differences between releases [A-1](#)
 disable_interrupts (disable interrupts)
 function [3-42](#)
 div (division) function [3-43](#)
 division (see div, ldiv functions)
 dm (see dual memory support keywords
 (pm dm))
 -dry (verbose dry-run) compiler switch
 [2-17](#)
 -dryrun (terse dry-run) compiler switch
 [2-17](#)
 dual memory support keywords (pm
 dm) [2-34, 2-37, 2-50](#)

E

-E stop after preprocessing) compiler
 switch [2-17](#)
 -EE (run after preprocessing) compiler
 switch [2-18](#)
 enable_interrupts (enable interrupts)

 function [3-44](#)
 end (see atexit, exit functions)
 exit (normal program termination)
 function [3-45](#)
 exit macro [2-87](#)
 exp (exponential) function [3-46](#)
 -extra-keywords (not quite -analog)
 compiler switch [2-18](#)

F

fabs (float absolute value) function [3-47](#)
 false (see Boolean type support
 keywords (bool, true, false))
 far jump return (see longjmp, setjmp
 functions)
 fftN (N-point complex input FFT)
 function [3-48](#)
 ffts.h – Fast Fourier Transforms [3-7](#)
 file extension [2-3, 2-6](#)
 file searches [2-5](#)
 filenames [2-14](#)
 filter functions
 biquad [3-28](#)
 filters.h – DSP filters [3-7](#)
 fir (finite impulse response filter)
 function [3-51](#)
 -flags (command line input) compiler
 switch [2-18](#)
 float.h – floating point [3-8](#)
 floor function [3-53](#)
 fmod (floating-point modulus) function
 [3-54](#)
 frame pointer (FP), definition of [2-93](#)
 free (deallocate memory) function [3-55](#)

INDEX

frexp (separate fraction and exponent)
function [3-56](#)

function_entry macro [2-87](#)

functions

primitive I/O [3-9](#)

G

-g (generate debug information)
compiler switch [2-18](#)

g21-based options and extensions [A-3](#)

getsfirst macro [2-89](#)

getsnext macro [2-90](#)

graphical character test (see isgraph
function)

H

-H (list *.h) compiler switch [2-19](#)

header files [2-23](#), [2-68](#)

asm_sprt.h [3-6](#)

def2181.h [3-6](#)

defESP202.h [3-6](#)

ffts.h [3-7](#)

filters.h [3-7](#)

fract.h [3-8](#)

macros.h [3-8](#)

misc.h [3-9](#)

signal.h [3-9](#)

sport.h [3-9](#)

stdio.h [3-9](#)

sysreg.h [2-62](#), [2-63](#), [3-10](#)

-help (command line help) compiler
switch [2-19](#)

hexadecimal digit test (see isxdigit
function)

-HH (list *.h and compile) compiler
switch [2-19](#)

I

-I (include search directory) compiler
switch [2-19](#), [2-23](#)

I/O space [2-63](#)

ifftN (inverse complex FFT) function
[3-57](#)

iir (infinite impulse response) filter
function [3-60](#)

-include (include file) compiler switch
[2-20](#)

index registers, definition of [2-93](#)

indexed initializer support [2-59](#)

indexed initializers [A-4](#)

inline assembly code [2-70](#)

inline assembly language support

keyword (asm) [2-40](#)

construct I/O operands [2-48](#)

construct optimization [2-47](#)

construct template [2-41](#)

construct template operands [2-44](#)

constructs with multiple instructions
[2-47](#)

macros containing asm [2-49](#)

inline function support keyword (inline)
[2-30](#), [2-34](#), [2-37](#), [2-39](#)

interfacing C/assembly (see mixed
C/assembly programming)

interrupt

RTI instruction [2-71](#)

interrupt (define interrupt handling)
function [3-64](#)

- interrupt control [2-64](#)
- interrupt table
 - 218x_int_tab.asm [2-71](#)
- interrupt table symbols
 - _____system_start [2-71](#)
 - __lib_int_determiner [2-71](#)
 - _lib_int_table [2-71](#)
- interrupts (see clear_interrupt, interruptf, interrupts, signal, raise functions)
- intrinsic functions [2-62](#)
- io_space_read (read I/O space) function [3-67](#)
- io_space_write (write I/O space)
 - function [3-68](#)
- isalnum (detect alphanumeric character)
 - function [3-69](#)
- isalpha (detect alphabetic character)
 - function [3-70](#)
- isctrl (detect control character)
 - function [3-71](#)
- isdigit (detect decimal digit) function [3-72](#)
- isgraph (detect printable character)
 - function [3-73](#)
- islower (detect lowercase character)
 - function [3-76](#)
- isprint (detect printable character)
 - function [3-79](#)
- ispunct (detect punctuation character)
 - function [3-80](#)
- isspace (detect whitespace character)
 - function [3-81](#)
- isupper (detect uppercase character)
 - function [3-82](#)
- isxdigit (detect hexadecimal digit)
 - function [3-83](#)
- J**
- jump-{dm|pm} (select jump table memory type) compiler switch [2-20](#)
- K**
- keywords (compiler) (see compiler C extensions)
- L**
- L (length) registers, definition of [2-94](#)
- L (library search directory) compiler switch [2-20](#)
- l (link library) compiler switch [2-20](#), [2-24](#)
- labs (long integer absolute value)
 - function [3-84](#)
- language extensions (compiler) (see compiler C extensions)
- ldexp (multiple by power of 2) function [3-85](#)
- ldiv (division) function [3-86](#)
- ldiv (division, long) function [3-86](#)
- leaf assembly routines, definition of [2-94](#)
- leaf procedure [2-73](#)
- leaf_entry macro [2-88](#)
- leaf_exit macro [2-88](#)

INDEX

- library
 - header files, working with [3-4](#)
 - linking functions [3-3](#)
 - source code, working with [3-4](#)
- linker [2-94](#)
- linking library functions [3-3](#)
- localtime (return address of encoded calendar time) function [3-87](#)
- log (natural logarithm) function [3-87](#)
- log, logf (log base e) function [3-91](#)
- log10 (base 10 logarithm) function [3-88](#)
- log10, log10f (log base 10) function [3-91](#)
- long jump (see longjmp, setjmp functions)
- longjmp (far jump return) function [3-91](#)
- longjmp (second return from setjmp) function [3-89](#)
- lower case (see islower, tolower functions)
- M**
- M (generate make rules only) compiler switch [2-21](#)
- M (modify) registers, definition of [2-94](#)
- macros
 - `_ADSP21_` [2-65](#)
 - `_ADSP21XX_` and `_ADSP218X_` [2-65](#)
 - `_ANALOG_EXTENSIONS_` [2-65](#)
 - `_DATE_` [2-66](#)
 - `_DOUBLES_ARE_FLOATS_` [2-66](#)
 - `_ECC_` [2-66](#)
 - `_EDG_` [2-66](#)
 - `_EDG_VERSION_` [2-66](#)
 - `_FILE_` [2-66](#)
 - `_LINE_` [2-66](#)
 - `_NO_BUILTIN` [2-67](#)
 - `_SIGNED_CHARS_` [2-67](#)
 - `_STDC_` [2-67](#)
 - `_STDC_VERSION_` [2-67](#)
 - `_TIME_` [2-67](#)
- circular buffer [3-8](#)
- EDOM [3-8](#)
- ERANGE [3-8](#)
- HUGE_VAL [3-8](#)
- macros and asm() C program constructs [2-49](#)
- macros and the C preprocessor [2-94](#)
- make-autostatic (make automatic variables static) compiler switch [2-21](#)
- malloc (allocate memory) function [3-91](#)
- manual
 - related documents [1-5](#)
- map (generate a memory map) compiler switch [2-21](#)
- map file [2-21](#)
- mata memory (dm), definition of [2-93](#)
- math.h – Mathematics [3-8](#)
- max (find larger, int) function [3-108](#)
- mean (mean, array) function [3-108](#)
- memchr (find first occurrence of character) function [3-92](#)
- memcmp (compare objects) function [3-93](#)
- memcpy (copy characters from one

- object to another) function [3-94](#)
 - memmove (move characters from one object to another) function [3-95](#)
 - memory (see calloc, free, malloc, memcmp, memcpy, memset, memmove, memchar, realloc functions)
 - memset (set range of memory to a character) function [3-96](#)
 - mixed C/assembly
 - C run-time model [2-70](#)
 - calling C from assembler [2-86](#)
 - naming conventions [2-90](#)
 - programming [2-70](#)
 - asm() constructs [2-40](#), [2-41](#), [2-44](#), [2-47](#), [2-48](#), [2-49](#)
 - support macros [2-87](#)
 - modf (separate integral and fractional parts) function [3-97](#)
 - move memory range (see memmove function)
 - multi-line asm() C program constructs [2-47](#)
- N**
- no_hardware_pc_stack compiler switch [2-23](#)
 - no-alttok (disable alternative tokens) compiler switch [2-21](#)
 - no-builtin (no builtin functions) compiler switch [2-22](#)
 - no-def (disable defaults) compiler switch [2-22](#)
 - no-extra-keywords (disable short-form keywords) compiler switch [2-22](#)
 - no-inline (disable inline keyword) compiler switch [2-23](#)
 - non-constant initializer support (compiler) [2-58](#)
 - non-leaf assembly routines [2-94](#)
 - non-memory-mapped registers [2-63](#)
 - no-std-def (disable standard macro definitions) compiler switch [2-23](#)
 - no-std-inc (disable standard include search) compiler switch [2-23](#)
 - no-std-lib (disable standard library search) compiler switch [2-24](#)
 - notation conventions [1-6](#)
- O**
- O (enable optimization) compiler switch [2-24](#)
 - o (output file) compiler switch [2-24](#)
 - obsolete warning switches [A-9](#)
 - obsolete/modified switches [A-5](#)
 - optimizing asm() C program constructs [2-47](#)
 - Os (optimize for size) compiler switch [2-24](#)
- P**
- P (omit line numbers) compiler switch [2-24](#)
 - path-install (installation location) compiler switch [2-25](#)
 - path-output (non-temporary files location) compiler switch [2-25](#)
 - path-temp (temporary files location)

INDEX

- compiler switch [2-25](#)
 - path-tool (tool location) compiler switch [2-25](#)
 - pedantic (ANSI standard warnings) compiler switch [2-25](#)
 - pedantic-errors (ANSI C errors) compiler switch [2-26](#)
 - perror (map error number to error message) function [3-98](#)
 - placement support keyword (segment) [2-37](#), [2-55](#)
 - pm (see dual memory support keywords (pm dm))
 - pointer class support keyword (restrict) [2-37](#), [2-56](#)
 - pow (raise to a power) function [3-99](#)
 - pplist (preprocessor listing) compiler switch [2-26](#)
 - predefined macros [2-65](#)
 - __ADSP21{81|83|84|85|86|87|88|89}__ [2-65](#)
 - __ADSP21XX__ , __ADSP218X__ [2-65](#)
 - __ANALOG_EXTENSIONS__ [2-65](#)
 - __DATE__ [2-66](#)
 - __DOUBLES_ARE_FLOATS__ [2-66](#)
 - __ECC__ [2-66](#)
 - __EDG__ [2-66](#)
 - __EDG_VERSION__ [2-66](#)
 - __FILE__ [2-66](#)
 - __LINE__ [2-66](#)
 - __NO_BUILTIN [2-67](#)
 - __SIGNED_CHARS__ [2-67](#)
 - __STDC__ [2-67](#)
 - __STDC_VERSION__ [2-67](#)
 - __TIME__ [2-67](#)
 - preprocessing a program [2-65](#)
 - preprocessor features [2-65](#)
 - preserved registers [2-78](#)
 - preserved registers, definition of [2-94](#)
 - primitive I/O functions [3-9](#)
 - printable character test (see isprint function)
 - printf (write formatted stream output to standard out) function [3-100](#)
 - proc (target processor) compiler switch [2-26](#)
 - procedure call/return [2-77](#)
 - program control functions
 - calloc [3-33](#)
 - malloc [3-91](#)
 - realloc [3-107](#)
 - program memory (pm) [2-94](#)
 - punctuation character test (ispunct) function [3-80](#)
 - putsfirst macro [2-89](#)
 - putsnext macro [2-89](#)
- ## Q
- qsort (quicksort) function [3-101](#)
- ## R
- R- (disable source path) compiler switch [2-27](#)
 - R (search for source files) compiler switch [2-27](#)

- raise (raise a signal) function [3-103](#)
 - rand (random number generator)
 - function [3-106](#)
 - random number (see rand, srand
 - functions) [3-106](#)
 - readfirst macro [2-89](#)
 - readsnxt macro [2-89](#)
 - realloc (allocate used memory) function [3-108](#)
 - realloc (change memory allocation)
 - function [3-107](#)
 - real-time signals (see clear_interrupt,
 - interruptf, interrupts, poll_flag_in,
 - raise, signal functions)
 - register
 - complete list of [2-79](#)
 - register classification [2-78](#)
 - circular buffer [2-79](#)
 - dedicated [2-78](#)
 - preserved [2-78](#)
 - save/scratch [2-79](#)
 - register usage (see mixed C/assembly
 - programming)
 - registers for asm() constructs [2-44](#)
 - related documents [1-5](#)
 - reordering asm() C program constructs [2-47](#)
 - reserve compiler switch [2-27](#)
 - restore_reg macro [2-88](#)
 - restrict (see pointer class support
 - keyword (restrict))
 - return values [2-76](#)
 - run-time environment (see mixed
 - C/assembly programming)
 - run-time environment programming
 - (see mixed C/assembly programming)
 - run-time header [2-70](#)
 - 218x_hdr.asm [2-70](#)
 - run-time model [A-9](#)
- ## S
- S (stop after compilation) compiler
 - switch [2-28](#)
 - s (strip debugging information)
 - compiler switch [2-28](#)
 - save/scratch registers [2-79](#)
 - save_reg macro [2-88](#)
 - save-temps (save intermediate files)
 - compiler switch [2-28](#)
 - scratch registers [2-94](#)
 - search character string (see strchr,
 - strchr functions)
 - search memory, character (see memchar
 - function)
 - search path
 - for include files [2-19](#)
 - for library files [2-20](#)
 - segment (see placement support
 - keyword (segment))
 - segment placement [A-3](#)
 - set jump (see longjmp, setjmp
 - functions)
 - setjmp (label for external linkage)
 - function [3-108](#)
 - setjmp (long jump) function [3-108](#)
 - setting compiler options [2-70](#)
 - show (display command line) compiler

INDEX

- switch 2-28
- signal (define signal handling) function 3-109
- signals (see clear_interrupt, interruptf, interrupts, poll_flag_in, raise, signal functions)
- signed keyword 2-30
- signed-char (make char signed) compiler switch 2-28
- sin (sine) function 3-112
- sinh (hyperbolic sine) function 3-113
- some general caveats 2-85
- sqrt (square root) function 3-116
- srand (random number seed) function 3-115
- stack frame 2-72
 - free space 2-75
 - incoming arguments 2-74
 - linkage information 2-74
 - local variables/temporaries 2-75
 - outgoing arguments 2-75
 - system-wide specifications 2-75
- stack pointer (SP) 2-95
- standard header files
 - assert.h 3-6
 - ctype.h 3-6
 - errno.h 3-7
 - float.h 3-8
 - math.h 3-8
 - signal.h 3-9
 - stdio.h 3-9
- standard library functions
 - abort 3-18
 - atexit 3-24
 - atof 3-25
 - atol 3-27
 - bsearch 3-31
 - div 3-43
 - exit 3-45
 - free 3-55
 - ldiv 3-86
 - malloc 3-91
 - rand 3-106
 - srand 3-115
 - strtol 3-137
 - strtoul 3-139
- status registers 2-95
- stop (see atexit, exit functions)
- strcat (concatenate strings) function 3-116
- strchr (find first occurrence of character in string) function 3-117
- strcmp (compare strings) function 3-118, 3-121
- strcoll (compare strings) function 3-119
- strcpy (copy from one string to another) function 3-120
- strcspn (length of character segment in one string but not the other) function 3-121
- strerror (get string containing error message) function 3-122
- string conversion (see atof, atoi, atol, strtok, strtol, strtoul functions)

- string functions
 - memchar [3-92](#)
 - memmove [3-95](#)
 - strchr [3-117](#)
 - strcoll [3-119](#)
 - strcspn [3-121](#)
 - strerror [3-122](#)
 - strpbrk [3-127](#)
 - strrchr [3-128](#), [3-129](#)
 - strspn [3-129](#)
 - strstr [3-130](#)
 - strtok [3-135](#)
 - strxfrm [3-141](#)
 - strlen (string length) function [3-123](#)
 - strncat (concatenate characters from one string to another) function [3-124](#)
 - strncmp (compare characters in strings) function [3-125](#)
 - strncpy (copy characters from one string to another) function [3-126](#)
 - strpbrk (find character match in two strings) function [3-127](#)
 - strrchr (find last occurrence of character in string) function [3-128](#)
 - strspn (length of segment of characters in both strings) function [3-129](#)
 - strstr (find string within string) function [3-130](#)
 - strtod (convert portion of string to double) function [3-131](#)
 - strtodf (convert portion of string to float) function [3-133](#)
 - strtok (convert string to tokens) function [3-135](#)
 - strtol (convert string to long integer) function [3-137](#)
 - strtoul (convert string to unsigned long integer) function [3-139](#)
 - strxfrm (transform string using LC_COLLATE) function [3-141](#)
 - syntax-only (just check syntax) compiler switch [2-29](#)
 - sysdef (system definitions) compiler switch [2-29](#)
 - sysreg [3-10](#)
 - sysreg_read (read from non-memory-mapped register) function [3-143](#)
 - sysreg_write (write to non-memory-mapped register) function [3-145](#)
 - system header file [2-87](#)
 - system header files [2-68](#)
- T**
- T (linker description file) compiler switch [2-29](#)
 - tan (tangent) function [3-147](#)
 - tanh (hyperbolic tangent) function [3-148](#)
 - technical support [1-2](#)
 - template for asm() in C programs [2-41](#)
 - terminate (see atexit, exit functions)
 - time (store and return current calendar time) function [3-149](#)
 - time (time the compiler) compiler switch [2-29](#)

INDEX

- timer_off (disable ADSP-218x timer)
function [3-149](#)
- timer_on (enable ADSP-218x timer)
function [3-150](#)
- timer_set (initialize ADSP-218x timer)
function [3-151](#)
- tokens, string convert (see strtok
function)
- tolower (convert from uppercase to
lowercase) function [3-153](#)
- toupper (convert characters to upper
case) function [3-154](#)
- traditional (traditional C compilation)
compiler switch [2-30](#)
- true (see Boolean type support keywords
(bool, true, false))

- U
- U (undefine macro) compiler switch
[2-16](#), [2-30](#)
- unsigned-char (make char unsigned)
compiler switch [2-30](#)
- upper case (see isupper, toupper
functions)
- user header files [2-68](#)

- V
- v (version & verbose) compiler switch
[2-30](#)
- va_arg (get next argument in variable
list) function [3-155](#)
- va_end (reset variable list pointer)
function [3-156](#)

- va_start (set variable list pointer)
function [3-157](#)
- variable-length array support [2-57](#)
- verbose (display command line)
compiler switch [2-31](#)
- version (display version) switch [2-31](#)
- VisualDSP++
compiler C language extensions [2-37](#)
mixed C/assembly reference [2-70](#)
- volatile keyword [2-30](#)
- volatile and asm() C program constructs
[2-47](#)

- W
- w (disable all warnings) switch [2-31](#)
- W (override error message) compiler
switch [2-31](#)
- warnings, new in this release [A-8](#)
- warn-protos (prototypes warning)
compiler switch [2-31](#)
- Wdriver-limit (maximum process
errors) compiler switch [2-32](#)
- Werror-limit (maximum compiler
errors) compiler switch [2-32](#)
- white space character test (see isspace
function)
- Wremarks (enable diagnostic
warnings) compiler switch [2-32](#)
- write-files (enable driver I/O
redirection) compiler switch [2-32](#)
- writing macros [2-68](#)
- Wterse (enable terse warnings)
compiler switch [2-32](#)

X

-xref (cross-reference list) compiler switch [2-33](#)

INDEX