**C++ Standard Library**

The C++ standard library provides a large number of library functions (under different header files) for performing common tasks.

**C++ Header Files**

* [cmath](https://www.programiz.com/cpp-programming/library-function/cmath) - declares functions for mathematical operations
* [cstdlib](https://www.programiz.com/cpp-programming/library-function/cstdlib) - usually general purpose functions
* [iostream](https://www.programiz.com/cpp-programming/library-function/iostream) - functions for standard I/O
* [cstring](https://www.programiz.com/cpp-programming/library-function/cstring) - functions to manipulate C-style string
* [cctype](https://www.programiz.com/cpp-programming/library-function/cctype) - functions to classify (and transform) individual characters
* [csignal](https://www.programiz.com/cpp-programming/library-function/csignal) - to handle signals
* [clocale](https://www.programiz.com/cpp-programming/library-function/clocale) - internationalization support task such as date/time formatting
* [cwctype](https://www.programiz.com/cpp-programming/library-function/cwctype) - for classifying and transforming individual wide characters
* [cstdio](https://www.programiz.com/cpp-programming/library-function/cstdio) - C Standard Input and Output Library
* [cwchar](https://www.programiz.com/cpp-programming/library-function/cwchar) - to work with C wide string
* [cuchar](https://www.programiz.com/cpp-programming/library-function/cuchar) - convert between multibyte characters and UTF-16 or UTF-32
* [csetjmp](https://www.programiz.com/cpp-programming/library-function/csetjmp) - bypass the normal function call and return discipline
* [cfenv](https://www.programiz.com/cpp-programming/library-function/cfenv) - access floating point environment
* [ctime](https://www.programiz.com/cpp-programming/library-function/ctime) - functions to work with date and time

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**<cmath>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ pow()](https://www.programiz.com/cpp-programming/library-function/cmath/pow) | Computes Power a Number |  |
| [C++ llrint()](https://www.programiz.com/cpp-programming/library-function/cmath/llrint) | Rounds argument using current rounding mode |  |
| [C++ remainder()](https://www.programiz.com/cpp-programming/library-function/cmath/remainder) | Returns remainder of x/y |  |
| [C++ nan()](https://www.programiz.com/cpp-programming/library-function/cmath/nan) | returns a quiet NaN value |  |
| [C++ cosh()](https://www.programiz.com/cpp-programming/library-function/cmath/cosh) | Returns Hyperbolic Cosine of an Angle |  |
| [C++ copysign()](https://www.programiz.com/cpp-programming/library-function/cmath/copysign) | returns num with value of first and sign of second |  |
| [C++ fma()](https://www.programiz.com/cpp-programming/library-function/cmath/fma) | Returns Fused Multiply–Accumulate |  |
| [C++ abs()](https://www.programiz.com/cpp-programming/library-function/cmath/abs) | returns absolute value of an argument |  |
| [C++ fabs()](https://www.programiz.com/cpp-programming/library-function/cmath/fabs) | returns absolute value of argument |  |
| [C++ fdim()](https://www.programiz.com/cpp-programming/library-function/cmath/fdim) | Returns Positive Different Between Arguments |  |
| [C++ fmin()](https://www.programiz.com/cpp-programming/library-function/cmath/fmin) | returns smallest among two given arguments |  |
| [C++ fmax()](https://www.programiz.com/cpp-programming/library-function/cmath/fmax) | returns largest among two arguments passed |  |
| [C++ hypot()](https://www.programiz.com/cpp-programming/library-function/cmath/hypot) | Returns Square Root of sum of square of Arguments |  |
| [C++ nexttoward()](https://www.programiz.com/cpp-programming/library-function/cmath/nexttoward) | returns next value after x in direction of y |  |
| [C++ nextafter()](https://www.programiz.com/cpp-programming/library-function/cmath/nextafter) | returns next value after x in direction of y |  |
| [C++ cbrt()](https://www.programiz.com/cpp-programming/library-function/cmath/cbrt) | Computes Cube Root of a Number |  |
| [C++ sqrt()](https://www.programiz.com/cpp-programming/library-function/cmath/sqrt) | Computes Square Root of A Number |  |
| [C++ remquo()](https://www.programiz.com/cpp-programming/library-function/cmath/remquo) | Computer remainder and stores quotient of x/y |  |
| [C++ logb()](https://www.programiz.com/cpp-programming/library-function/cmath/logb) | returns logarithm of |x| |  |
| [C++ log1p()](https://www.programiz.com/cpp-programming/library-function/cmath/log1p) | returns natural logarithm of x+1. |  |
| [C++ scalbln()](https://www.programiz.com/cpp-programming/library-function/cmath/scalbln) | Scales x by FLT\_RADIX to the power n |  |
| [C++ log2()](https://www.programiz.com/cpp-programming/library-function/cmath/log2) | returns base2 logarithm of a number |  |
| [C++ scalbn()](https://www.programiz.com/cpp-programming/library-function/cmath/scalbn) | Scales x by FLT\_RADIX to the power n |  |
| [C++ ilogb()](https://www.programiz.com/cpp-programming/library-function/cmath/ilogb) | returns integral part of logarithm of |x| |  |
| [C++ nearbyint()](https://www.programiz.com/cpp-programming/library-function/cmath/nearbyint) | Rounds argument to using current rounding mode |  |
| [C++ expm1()](https://www.programiz.com/cpp-programming/library-function/cmath/expm1) | Returns e raised to Power Minus 1 |  |
| [C++ ldexp()](https://www.programiz.com/cpp-programming/library-function/cmath/ldexp) | returns product of x and 2 raised to the power e |  |
| [C++ frexp()](https://www.programiz.com/cpp-programming/library-function/cmath/frexp) | breaks float to its binary significand |  |
| [C++ exp2()](https://www.programiz.com/cpp-programming/library-function/cmath/exp2) | Returns 2 raised to a Number |  |
| [C++ exp()](https://www.programiz.com/cpp-programming/library-function/cmath/exp) | returns exponential (e) raised to a number |  |
| [C++ modf()](https://www.programiz.com/cpp-programming/library-function/cmath/modf) | Breaks Number Into Integral and Fractional Part |  |
| [C++ log10()](https://www.programiz.com/cpp-programming/library-function/cmath/log10) | Returns Base 10 Logarithm of a Number |  |
| [C++ lrint()](https://www.programiz.com/cpp-programming/library-function/cmath/lrint) | Rounds argument using current rounding mode |  |
| [C++ rint()](https://www.programiz.com/cpp-programming/library-function/cmath/rint) | Rounds argument using current rounding mode |  |
| [C++ llround()](https://www.programiz.com/cpp-programming/library-function/cmath/llround) | Rounds argument to nearest long long int value |  |
| [C++ lround()](https://www.programiz.com/cpp-programming/library-function/cmath/lround) | Returns the long int value nearest to the argument |  |
| [C++ round()](https://www.programiz.com/cpp-programming/library-function/cmath/round) | Returns integral value nearest to argument |  |
| [C++ trunc()](https://www.programiz.com/cpp-programming/library-function/cmath/trunc) | Truncates the demical part of a number |  |
| [C++ log()](https://www.programiz.com/cpp-programming/library-function/cmath/log) | Returns Natural Logarithm of a Number |  |
| [C++ atanh()](https://www.programiz.com/cpp-programming/library-function/cmath/atanh) | returns arc hyperbolic tangent of a number |  |
| [C++ asinh()](https://www.programiz.com/cpp-programming/library-function/cmath/asinh) | returns arc hyperbolic sine of a number |  |
| [C++ acosh()](https://www.programiz.com/cpp-programming/library-function/cmath/acosh) | returns hyperbolic cosine of a number |  |
| [C++ fmod()](https://www.programiz.com/cpp-programming/library-function/cmath/fmod) | Computes floating point remainder of division |  |
| [C++ tanh()](https://www.programiz.com/cpp-programming/library-function/cmath/tanh) | returns hyperbolic tangent of an angle |  |
| [C++ floor()](https://www.programiz.com/cpp-programming/library-function/cmath/floor) | Returns floor value of decimal number |  |
| [C++ ceil()](https://www.programiz.com/cpp-programming/library-function/cmath/ceil) | Return ceiling value of number |  |
| [C++ sinh()](https://www.programiz.com/cpp-programming/library-function/cmath/sinh) | returns hyperbolic sine of an angle |  |
| [C++ acos()](https://www.programiz.com/cpp-programming/library-function/cmath/acos) | Returns Inverse cosine a Number |  |
| [C++ atan2()](https://www.programiz.com/cpp-programming/library-function/cmath/atan2) | Returns Inverse Tangent of a Coordinate |  |
| [C++ tan()](https://www.programiz.com/cpp-programming/library-function/cmath/tan) | Returns Tangent of the Argument |  |
| [C++ atan()](https://www.programiz.com/cpp-programming/library-function/cmath/atan) | Returns Inverse tangent a Number |  |
| [C++ asin()](https://www.programiz.com/cpp-programming/library-function/cmath/asin) | Returns Inverse Sine a Number |  |
| [C++ sin()](https://www.programiz.com/cpp-programming/library-function/cmath/sin) | Returns Sine of the Argument |  |
| [C++ cos()](https://www.programiz.com/cpp-programming/library-function/cmath/cos) | Returns Cosine of the Argument |  |

**<cstdlib>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ calloc()](https://www.programiz.com/cpp-programming/library-function/cstdlib/calloc) | allocates block of memory and initializes to zero |  |
| [C++ wcstombs()](https://www.programiz.com/cpp-programming/library-function/cstdlib/wcstombs) | converts wide character string to multibyte seq |  |
| [C++ mbstowcs()](https://www.programiz.com/cpp-programming/library-function/cstdlib/mbstowcs) | converts multibyte char string to wide char seq |  |
| [C++ wctomb()](https://www.programiz.com/cpp-programming/library-function/cstdlib/wctomb) | converts wide character to a multibyte character |  |
| [C++ mbtowc()](https://www.programiz.com/cpp-programming/library-function/cstdlib/mbtowc) | converts multibyte character to a wide character |  |
| [C++ mblen()](https://www.programiz.com/cpp-programming/library-function/cstdlib/mblen) | determines size of a multibyte character |  |
| [C++ lldiv()](https://www.programiz.com/cpp-programming/library-function/cstdlib/lldiv) | computes integral division of two long long int. |  |
| [C++ llabs()](https://www.programiz.com/cpp-programming/library-function/cstdlib/llabs) | returns absolute value of a long long int data |  |
| [C++ ldiv()](https://www.programiz.com/cpp-programming/library-function/cstdlib/ldiv) | computes integral division of long int numbers |  |
| [C++ labs()](https://www.programiz.com/cpp-programming/library-function/cstdlib/labs) | returns absolute value of long or long int number |  |
| [C++ abs()](https://www.programiz.com/cpp-programming/library-function/cstdlib/abs) | returns absolute value of an integer |  |
| [C++ div()](https://www.programiz.com/cpp-programming/library-function/cstdlib/div) | computes integral quotient and remainder of number |  |
| [C++ qsort()](https://www.programiz.com/cpp-programming/library-function/cstdlib/qsort) | sorts array using quick-sort algorithm |  |
| [C++ bsearch()](https://www.programiz.com/cpp-programming/library-function/cstdlib/bsearch) | performs binary search on sorted array |  |
| [C++ \_Exit()](https://www.programiz.com/cpp-programming/library-function/cstdlib/exit) | causes termination without cleanup tasks |  |
| [C++ quick\_exit()](https://www.programiz.com/cpp-programming/library-function/cstdlib/quick-exit) | causes termination without cleaning resources |  |
| [C++ getenv()](https://www.programiz.com/cpp-programming/library-function/cstdlib/getenv) | returns pointer to environment variable passed |  |
| [C++ at\_quick\_exit()](https://www.programiz.com/cpp-programming/library-function/cstdlib/at-quick-exit) | registers function and calls on quick termination |  |
| [C++ atexit()](https://www.programiz.com/cpp-programming/library-function/cstdlib/atexit) | registers function to be called on termination |  |
| [C++ realloc()](https://www.programiz.com/cpp-programming/library-function/cstdlib/realloc) | reallocates a block of previously allocated memory |  |
| [C++ malloc()](https://www.programiz.com/cpp-programming/library-function/cstdlib/malloc) | allocates a block of unitialized memory |  |
| [C++ free()](https://www.programiz.com/cpp-programming/library-function/cstdlib/free) | deallocates a block of memory |  |
| [C++ srand()](https://www.programiz.com/cpp-programming/library-function/cstdlib/srand) | seeds pseudo random number for rand() |  |
| [C++ strtoull()](https://www.programiz.com/cpp-programming/library-function/cstdlib/strtoull) | converts string to unsigned long long int |  |
| [C++ strtoll()](https://www.programiz.com/cpp-programming/library-function/cstdlib/strtoll) | converts string to long long int in C++ |  |
| [C++ atol()](https://www.programiz.com/cpp-programming/library-function/cstdlib/atol) | Converts String to Integer |  |
| [C++ strtol()](https://www.programiz.com/cpp-programming/library-function/cstdlib/strtol) | Converts a string to number |  |
| [C++ atof()](https://www.programiz.com/cpp-programming/library-function/cstdlib/atof) | Converts String to Double |  |
| [C++ strtod()](https://www.programiz.com/cpp-programming/library-function/cstdlib/strtod) | returns string float to double |  |

**<iostream>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ wclog](https://www.programiz.com/cpp-programming/library-function/iostream/wclog) | writes to log stream with wide character |  |
| [C++ wcerr](https://www.programiz.com/cpp-programming/library-function/iostream/wcerr) | prints to error stream as wide character type |  |
| [C++ wcout](https://www.programiz.com/cpp-programming/library-function/iostream/wcout) | displays wide characters (Unicode) to screen |  |
| [C++ wcin](https://www.programiz.com/cpp-programming/library-function/iostream/wcin) | accepts input in wide character type |  |
| [C++ clog](https://www.programiz.com/cpp-programming/library-function/iostream/clog) | used for streaming logs |  |
| [C++ cerr](https://www.programiz.com/cpp-programming/library-function/iostream/cerr) | writes to error stream |  |
| [C++ cout](https://www.programiz.com/cpp-programming/library-function/iostream/cout) | displays output to output device i.e monitor |  |
| [C++ cin](https://www.programiz.com/cpp-programming/library-function/iostream/cin) | accepts input from user |  |

**<cstring>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ strxfrm()](https://www.programiz.com/cpp-programming/library-function/cstring/strxfrm) | transform byte string into implementation def form |  |
| [C++ strcoll()](https://www.programiz.com/cpp-programming/library-function/cstring/strcoll) | compares two null terminated string |  |
| [C++ strlen()](https://www.programiz.com/cpp-programming/library-function/cstring/strlen) | returns length of given string |  |
| [C++ strerror()](https://www.programiz.com/cpp-programming/library-function/cstring/strerror) | gives description of system error code |  |
| [C++ memset()](https://www.programiz.com/cpp-programming/library-function/cstring/memset) | copies character to beginning of string n times |  |
| [C++ strtok()](https://www.programiz.com/cpp-programming/library-function/cstring/strtok) | split string based on delimiter |  |
| [C++ strstr()](https://www.programiz.com/cpp-programming/library-function/cstring/strstr) | finds first occurrence of a substring in string |  |
| [C++ strspn()](https://www.programiz.com/cpp-programming/library-function/cstring/strspn) | gives length of maximum initial segment |  |
| [C++ strrchr()](https://www.programiz.com/cpp-programming/library-function/cstring/strrchr) | searches last occurence of a character in string |  |
| [C++ strpbrk()](https://www.programiz.com/cpp-programming/library-function/cstring/strpbrk) | search characters in one string in another string |  |
| [C++ strcspn()](https://www.programiz.com/cpp-programming/library-function/cstring/strcspn) | searches a string for characters in another string |  |
| [C++ strchr()](https://www.programiz.com/cpp-programming/library-function/cstring/strchr) | searches for character in string |  |
| [C++ memchr()](https://www.programiz.com/cpp-programming/library-function/cstring/memchr) | searches for character in string |  |
| [C++ strncmp()](https://www.programiz.com/cpp-programming/library-function/cstring/strncmp) | compares two strings lexographically |  |
| [C++ strcmp()](https://www.programiz.com/cpp-programming/library-function/cstring/strcmp) | compare two strings |  |
| [C++ memcmp()](https://www.programiz.com/cpp-programming/library-function/cstring/memcmp) | compares two pointer objects |  |
| [C++ strncat()](https://www.programiz.com/cpp-programming/library-function/cstring/strncat) | appends string to end of another string |  |
| [C++ strcat()](https://www.programiz.com/cpp-programming/library-function/cstring/strcat) | appends copy of string to end of another string |  |
| [C++ strncpy()](https://www.programiz.com/cpp-programming/library-function/cstring/strncpy) | copies character string from source to destination |  |
| [C++ strcpy()](https://www.programiz.com/cpp-programming/library-function/cstring/strcpy) | copies character string from source to destination |  |
| [C++ memmove()](https://www.programiz.com/cpp-programming/library-function/cstring/memmove) | copies memory even if there is overlapping blocks |  |
| [C++ memcpy()](https://www.programiz.com/cpp-programming/library-function/cstring/memcpy) | copies block of memory from source to destination |  |

**<cctype>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ toupper()](https://www.programiz.com/cpp-programming/library-function/cctype/toupper) | converts a given character to uppercase |  |
| [C++ tolower()](https://www.programiz.com/cpp-programming/library-function/cctype/tolower) | converts a given character to lowercase |  |
| [C++ isxdigit()](https://www.programiz.com/cpp-programming/library-function/cctype/isxdigit) | checks if given character is hexadecimal character |  |
| [C++ isupper()](https://www.programiz.com/cpp-programming/library-function/cctype/isupper) | check if given character is uppercase or not |  |
| [C++ isspace()](https://www.programiz.com/cpp-programming/library-function/cctype/isspace) | check if given character is whitespace character |  |
| [C++ ispunct()](https://www.programiz.com/cpp-programming/library-function/cctype/ispunct) | check if given character is punctuation character |  |
| [C++ isprint()](https://www.programiz.com/cpp-programming/library-function/cctype/isprint) | check if given character is printable or not |  |
| [C++ islower()](https://www.programiz.com/cpp-programming/library-function/cctype/islower) | checks if given character is lowercase |  |
| [C++ isgraph()](https://www.programiz.com/cpp-programming/library-function/cctype/isgraph) | checks if given character is graphic or not |  |
| [C++ isdigit()](https://www.programiz.com/cpp-programming/library-function/cctype/isdigit) | checks if given character is a digit or not |  |
| [C++ iscntrl()](https://www.programiz.com/cpp-programming/library-function/cctype/iscntrl) | checks if given character is control character |  |
| [C++ isblank()](https://www.programiz.com/cpp-programming/library-function/cctype/isblank) | checks if given character is a blank character |  |
| [C++ isalpha()](https://www.programiz.com/cpp-programming/library-function/cctype/isalpha) | checks if given character is alphabet or not |  |

**<csignal>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ raise()](https://www.programiz.com/cpp-programming/library-function/csignal/raise) | sends signal to the program |  |
| [C++ signal()](https://www.programiz.com/cpp-programming/library-function/csignal/signal) | sets error handler for specifiied signal |  |

**<clocale>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ localeconv()](https://www.programiz.com/cpp-programming/library-function/clocale/localeconv) | returns current locale formatting rules |  |
| [C++ setlocale()](https://www.programiz.com/cpp-programming/library-function/clocale/setlocale) | sets locale information for the current program |  |

**<cwctype>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ iswdigit()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswdigit) | checks if given wide character is digit or not |  |
| [C++ wctype()](https://www.programiz.com/cpp-programming/library-function/cwctype/wctype) | returns wide character classification |  |
| [C++ wctrans()](https://www.programiz.com/cpp-programming/library-function/cwctype/wctrans) | returns current transformation for wide character |  |
| [C++ towctrans()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswctrans) | transforms a given wide character |  |
| [C++ iswctype()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswctype) | checks if given wide char has certain property |  |
| [C++ towupper()](https://www.programiz.com/cpp-programming/library-function/cwctype/towupper) | converts given wide character to uppercase |  |
| [C++ towlower()](https://www.programiz.com/cpp-programming/library-function/cwctype/tolower) | converts given wide character to lowercase |  |
| [C++ iswxdigit()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswxdigit) | checks if given wide character is hexadecimal num |  |
| [C++ iswupper()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswupper) | checks if given wide character is uppercase |  |
| [C++ iswspace()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswspace) | checks if given wide character is wide whitespace |  |
| [C++ iswpunct()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswpunct) | checks if given wide character is punctuation |  |
| [C++ iswprint()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswprint) | checks if given wide character can be printed |  |
| [C++ iswlower()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswlower) | checks if given wide character is lowercase |  |
| [C++ iswgraph()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswgraph) | checks if wide char has graphical representation |  |
| [C++ iswcntrl()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswcntrl) | checks if given wide char is control character |  |
| [C++ iswblank()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswblank) | checks if given wide character is blank character |  |
| [C++ iswalpha()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswalpha) | checks if given wide character is an alphabet |  |
| [C++ iswalnum()](https://www.programiz.com/cpp-programming/library-function/cwctype/iswalnum) | checks if given wide character is alphanumeric |  |

**<cstdio>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ getc()](https://www.programiz.com/cpp-programming/library-function/cstdio/getc) | reads next character from input stream |  |
| [C++ fseek()](https://www.programiz.com/cpp-programming/library-function/cstdio/fseek) | sets file position indicator for given file stream |  |
| [C++ ungetc()](https://www.programiz.com/cpp-programming/library-function/cstdio/ungetc) | push previously read character back to the stream |  |
| [C++ vsscanf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vsscanf) | read data from a string buffer |  |
| [C++ vscanf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vscanf) | read data from stdin |  |
| [C++ vfscanf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vfscanf) | read data from a file stream |  |
| [C++ freopen()](https://www.programiz.com/cpp-programming/library-function/cstdio/freopen) | opens a new file with stream associated to another |  |
| [C++ fflush()](https://www.programiz.com/cpp-programming/library-function/cstdio/fflush) | flushes any buffered data to the respective device |  |
| [C++ setvbuf()](https://www.programiz.com/cpp-programming/library-function/cstdio/setvbuf) | change or specify buffering mode and buffer size |  |
| [C++ perror()](https://www.programiz.com/cpp-programming/library-function/cstdio/perror) | prints error to stderr |  |
| [C++ ferror()](https://www.programiz.com/cpp-programming/library-function/cstdio/ferror) | checks for errors in given stream |  |
| [C++ feof() function](https://www.programiz.com/cpp-programming/library-function/cstdio/feof) | checks if file stream EOF has been reached or not |  |
| [C++ clearerr()](https://www.programiz.com/cpp-programming/library-function/cstdio/clearerr) | resets error flags and EOF indicator for stream |  |
| [C++ rewind()](https://www.programiz.com/cpp-programming/library-function/cstdio/rewind) | sets file position to beginning of stream |  |
| [C++ ftell()](https://www.programiz.com/cpp-programming/library-function/cstdio/ftell) | returns current position of file pointer |  |
| [C++ fsetpos()](https://www.programiz.com/cpp-programming/library-function/cstdio/fsetpos) | sets stream file pointer to given position |  |
| [C++ fgetpos()](https://www.programiz.com/cpp-programming/library-function/cstdio/fgetpos) | gets current file position |  |
| [C++ fwrite()](https://www.programiz.com/cpp-programming/library-function/cstdio/fwrite) | writes specified number of characters to stream |  |
| [C++ fread()](https://www.programiz.com/cpp-programming/library-function/cstdio/fread) | reads specified no. of characters from stream |  |
| [C++ puts()](https://www.programiz.com/cpp-programming/library-function/cstdio/puts) | writes string to stdout |  |
| [C++ putchar()](https://www.programiz.com/cpp-programming/library-function/cstdio/putchar) | writes a character to stdout |  |
| [C++ putc()](https://www.programiz.com/cpp-programming/library-function/cstdio/putc) | writes character to given output stream |  |
| [C++ gets()](https://www.programiz.com/cpp-programming/library-function/cstdio/gets) | reads line from stdin |  |
| [C++ getchar()](https://www.programiz.com/cpp-programming/library-function/cstdio/getchar) | reads next character from stdin |  |
| [C++ fputs()](https://www.programiz.com/cpp-programming/library-function/cstdio/fputs) | writes string to file stream |  |
| [C++ fputc()](https://www.programiz.com/cpp-programming/library-function/cstdio/fputc) | writes character to given output stream |  |
| [C++ fgets()](https://www.programiz.com/cpp-programming/library-function/cstdio/fgets) | reads n number of characters from file stream |  |
| [C++ fgetc()](https://www.programiz.com/cpp-programming/library-function/cstdio/fgetc) | reads the next character from given input stream |  |
| [C++ vsprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vsprintf) | write formatted string to a string buffer |  |
| [C++ vsnprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vsnprintf) | write formatted string to string buffer |  |
| [C++ vprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vprintf) | printf but takes args from vlist instead |  |
| [C++ vfprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/vfprintf) | write formatted string to file stream |  |
| [C++ sscanf()](https://www.programiz.com/cpp-programming/library-function/cstdio/sscanf) | read data from string buffer |  |
| [C++ sprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/sprintf) | write a formatted string to buffer |  |
| [C++ snprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/snprintf) | write formatted string to character string buffer |  |
| [C++ scanf](https://www.programiz.com/cpp-programming/library-function/cstdio/scanf) | read data form stdin |  |
| [C++ printf()](https://www.programiz.com/cpp-programming/library-function/cstdio/printf) | write formatted string to stdout |  |
| [C++ fscanf()](https://www.programiz.com/cpp-programming/library-function/cstdio/fscanf) | read data from file stream |  |
| [C++ fprintf()](https://www.programiz.com/cpp-programming/library-function/cstdio/fprintf) | write a formatted string to file stream |  |
| [C++ setbuf()](https://www.programiz.com/cpp-programming/library-function/cstdio/setbuf) | sets the internal buffer to be used for I/O |  |
| [C++ fopen()](https://www.programiz.com/cpp-programming/library-function/cstdio/fopen) | opens specified file |  |
| [C++ fclose()](https://www.programiz.com/cpp-programming/library-function/cstdio/fclose) | closes given file stream |  |
| [C++ tmpnam()](https://www.programiz.com/cpp-programming/library-function/cstdio/tmpnam) | generates unique filename |  |
| [C++ tmpfile()](https://www.programiz.com/cpp-programming/library-function/cstdio/tmpfile) | creates temporary file with auto-generated name |  |
| [C++ rename()](https://www.programiz.com/cpp-programming/library-function/cstdio/rename) | renames or moves specified file |  |
| [C++ remove()](https://www.programiz.com/cpp-programming/library-function/cstdio/remove) | deletes the specified file |  |

**<cwchar>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ wcscoll()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcscoll) | compares two null terminated wide string |  |
| [C++ wcstoull()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstoull) | converts wide string num to unsigned long long |  |
| [C++ wcstoul()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstoul) | converts wide str of given base to unsigned long |  |
| [C++ wcstoll()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstoll) | converts wide string of specified base to int |  |
| [C++ wcsftime()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsftime) | converts given date and time to wide character str |  |
| [C++ wmemset()](https://www.programiz.com/cpp-programming/library-function/cwchar/wmemset) | copies single wide char for a certain num of time |  |
| [C++ wmemmove()](https://www.programiz.com/cpp-programming/library-function/cwchar/wmemmove) | moves wide chars from src to dest |  |
| [C++ wmemcpy()](https://www.programiz.com/cpp-programming/library-function/cwchar/wmemcpy) | copies specified num of wide char from src to dest |  |
| [C++ wmemcmp()](https://www.programiz.com/cpp-programming/library-function/cwchar/wmemcmp) | compares wide chars of two wide strings |  |
| [C++ wmemchr()](https://www.programiz.com/cpp-programming/library-function/cwchar/wmemchr) | searches for first occurrence of wide char |  |
| [C++ wcsxfrm()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsxfrm) | transforms wide string to implementation defined |  |
| [C++ wcsstr()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsstr) | finds first occurrence of wide substring in a str |  |
| [C++ wcsspn()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsspn) | returns length of maximum initial segment |  |
| [C++ wcsrchr()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsrchr) | searches last occurrence of wide char in string |  |
| [C++ wcspbrk()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcspbrk) | searches for set of wide char in given wide string |  |
| [C++ wcsncpy()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsncpy) | copies specified number of wide characters |  |
| [C++ wcsncmp()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsncmp) | compares specified number of wide char of strings |  |
| [C++ wcsncat()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsncat) | appends specified num of wide char to another str |  |
| [C++ wcslen()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcslen) | returns length of the given wide string |  |
| [C++ wcscspn()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcscspn) | returns number of wide char before first occurence |  |
| [C++ wcscpy()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcscpy) | copies wide character string from source to dest |  |
| [C++ wcscmp()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcscmp) | lexicographically compares two wide string |  |
| [C++ wcschr()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcschr) | searches for a wide character in a wide string |  |
| [C++ wcscat()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcscat) | appends copy of wide string to the end of another |  |
| [C++ wcsrtombs()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcsrtombs) | convert wide char seq to narrow multibyte char seq |  |
| [C++ wctob()](https://www.programiz.com/cpp-programming/library-function/cwchar/wctob) | converts wide character to single byte character |  |
| [C++ wcrtomb()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcrtomb) | convert wide character to its narrow multibyte rep |  |
| [C++ mbsrtowcs()](https://www.programiz.com/cpp-programming/library-function/cwchar/mbsrtowcs) | convert narrow multibyte char seq to wide char seq |  |
| [C++ mbsinit()](https://www.programiz.com/cpp-programming/library-function/cwchar/mbsinit) | describe initial conversion state of mbstate\_t obj |  |
| [C++ mbrtowc()](https://www.programiz.com/cpp-programming/library-function/cwchar/mbrtowc) | converts narrow multibyte char to wide char |  |
| [C++ mbrlen()](https://www.programiz.com/cpp-programming/library-function/cwchar/mbrlen) | determines size in bytes of a multibyte character |  |
| [C++ btowc()](https://www.programiz.com/cpp-programming/library-function/cwchar/btowc) | converts character to its wide character |  |
| [C++ wcstok()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstok) | returns next token in null terminated wide string |  |
| [C++ wcstold()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstold) | converts wide string float number to long double |  |
| [C++ wcstol()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstol) | converts wide string float number to long int |  |
| [C++ wcstof()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstof) | converts wide string float number to float |  |
| [C++ wcstod()](https://www.programiz.com/cpp-programming/library-function/cwchar/wcstod) | converts wide string float number to double |  |
| [C++ wscanf()](https://www.programiz.com/cpp-programming/library-function/cwchar/wscanf) | reads wide character from stdin |  |
| [C++ wprintf()](https://www.programiz.com/cpp-programming/library-function/cwchar/wprintf) | write formatted wide string to stdout |  |
| [C++ vwscanf()](https://www.programiz.com/cpp-programming/library-function/cwchar/vwscanf) | read wide character from stdin |  |
| [C++ vwprintf()](https://www.programiz.com/cpp-programming/library-function/cwchar/vwprintf) | write formatted wide string to stdout |  |
| [C++ vswscanf()](https://www.programiz.com/cpp-programming/library-function/cwchar/vswscanf) | read wide character string from wide string buffer |  |
| [C++ vswprintf()](https://www.programiz.com/cpp-programming/library-function/cwchar/vswprintf) | write formatted wide string to wide string buffer |  |
| [C++ vfwscanf()](https://www.programiz.com/cpp-programming/library-function/cwchar/vfwscanf) | read wide character string from a file stream |  |
| [C++ vfwprintf()](https://www.programiz.com/cpp-programming/library-function/cwchar/vfwprintf) | write formatted wide string to a file stream |  |
| [C++ ungetwc()](https://www.programiz.com/cpp-programming/library-function/cwchar/ungetwc) | push previously read wide character back to stream |  |
| [C++ swscanf()](https://www.programiz.com/cpp-programming/library-function/cwchar/swscanf) | reads wide character from wide string buffer |  |
| [C++ swprintf()](https://www.programiz.com/cpp-programming/library-function/cwchar/swprintf) | write formatted wide string to wide string buffer |  |
| [C++ putwchar()](https://www.programiz.com/cpp-programming/library-function/cwchar/putwchar) | writes wide character to stdout |  |
| [C++ putwc()](https://www.programiz.com/cpp-programming/library-function/cwchar/putwc) | writes wide character to the given output stream |  |
| [C++ getwchar()](https://www.programiz.com/cpp-programming/library-function/cwchar/getwchar) | reads next wide character from stdin |  |
| [C++ getwc()](https://www.programiz.com/cpp-programming/library-function/cwchar/getwc) | reads next wide character from input stream |  |
| [C++ fwscanf()](https://www.programiz.com/cpp-programming/library-function/cwchar/fwscanf) | reads wide character from file stream |  |
| [C++ fwprintf()](https://www.programiz.com/cpp-programming/library-function/cwchar/fwprintf) | write formatted wide string to a file stream |  |
| [C++ fwide()](https://www.programiz.com/cpp-programming/library-function/cwchar/fwide) | set or query orientation of given file stream |  |
| [C++ fputws()](https://www.programiz.com/cpp-programming/library-function/cwchar/fputws) | writes wide string except null wide char to output |  |
| [C++ fputwc()](https://www.programiz.com/cpp-programming/library-function/cwchar/fputwc) | writes wide character to the given output stream |  |
| [C++ fgetws()](https://www.programiz.com/cpp-programming/library-function/cwchar/fgetws) | reads specified num of wide characters from stream |  |
| [C++ fgetwc()](https://www.programiz.com/cpp-programming/library-function/cwchar/fgetwc) | reads next wide character from given input stream |  |

**<cuchar>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ mbrtoc32()](https://www.programiz.com/cpp-programming/library-function/cuchar/mbrtoc32) | converts narrow multibyte char to 32 bit char |  |
| [C++ mbrtoc16()](https://www.programiz.com/cpp-programming/library-function/cuchar/mbrtoc16) | converts narrow multibyte char to 16 bit char |  |
| [C++ c32rtomb()](https://www.programiz.com/cpp-programming/library-function/cuchar/c32rtomb) | converts 32 bit char to narrow multibyte char |  |
| [C++ c16rtomb()](https://www.programiz.com/cpp-programming/library-function/cuchar/c16rtomb) | converts 16 bit char to narrow multibyte char |  |

**<csetjmp>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ longjmp() and setjmp()](https://www.programiz.com/cpp-programming/library-function/csetjmp/longjmp) | restores previously saved environment |  |

**<cfenv>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ fetestexcept()](https://www.programiz.com/cpp-programming/library-function/cfenv/fetestexcept) | tests floating point exception |  |
| [C++ feupdateenv()](https://www.programiz.com/cpp-programming/library-function/cfenv/feupdateenv) | updates floating point environment |  |
| [C++ feholdexcept()](https://www.programiz.com/cpp-programming/library-function/cfenv/feholdexcept) | saves and clear floating point status flags |  |
| [C++ fesetenv()](https://www.programiz.com/cpp-programming/library-function/cfenv/fesetenv) | set floating point environment |  |
| [C++ fesetround()](https://www.programiz.com/cpp-programming/library-function/cfenv/fesetround) | set rounding direction |  |
| [C++ fegetenv()](https://www.programiz.com/cpp-programming/library-function/cfenv/fegetenv) | store status of floating point env in an object |  |
| [C++ fegetround()](https://www.programiz.com/cpp-programming/library-function/cfenv/fegetround) | gets round direction mode |  |
| [C++ fesetexceptflag()](https://www.programiz.com/cpp-programming/library-function/cfenv/fesetexceptflag) | sets given floating point exceptions to the env |  |
| [C++ fegetexceptflag()](https://www.programiz.com/cpp-programming/library-function/cfenv/fegetexceptflag) | gets floating point exception flags |  |
| [C++ feraiseexcept()](https://www.programiz.com/cpp-programming/library-function/cfenv/feraiseexcept) | raises floating point exceptions specified |  |
| [C++ feclearexcept()](https://www.programiz.com/cpp-programming/library-function/cfenv/feclearexcept) | attempts to clear floating point exception flags |  |

**<ctime>**

| **Title** | **Description** |  |
| --- | --- | --- |
| [C++ strftime()](https://www.programiz.com/cpp-programming/library-function/ctime/strftime) | converts calendar time to multibyte character str |  |
| [C++ mktime()](https://www.programiz.com/cpp-programming/library-function/ctime/mktime) | converts local calendar time to time since epoch |  |
| [C++ localtime()](https://www.programiz.com/cpp-programming/library-function/ctime/localtime) | converts given time since epoch to local time |  |
| [C++ gmtime()](https://www.programiz.com/cpp-programming/library-function/ctime/gmtime) | converts given time since epoch to UTC time |  |
| [C++ ctime()](https://www.programiz.com/cpp-programming/library-function/ctime/ctime) | converts time since epoch to char representation |  |
| [C++ asctime()](https://www.programiz.com/cpp-programming/library-function/ctime/asctime) | converts calendar time to character representation |  |
| [C++ time()](https://www.programiz.com/cpp-programming/library-function/ctime/time) | returns current calendar time |  |
| [C++ difftime()](https://www.programiz.com/cpp-programming/library-function/ctime/difftime) | computes difference between two times in seconds |  |
| [C++ clock()](https://www.programiz.com/cpp-programming/library-function/ctime/clock) | returns processor time consumed by program |  |