

# Stream I/O

These functions process data in different sizes and formats, from single characters to large data structures. They also provide buffering, which can improve performance. The default size of a stream buffer is 4K. These routines affect only buffers created by the run-time library routines, and have no effect on buffers created by the operating system.

## Stream I/O Routines

Routine	Use
<a href="#">clearerr</a>	Clear error indicator for stream
<a href="#">fclose</a>	Close stream
<a href="#">_fcloseall</a>	Close all open streams except <b>stdin</b> , <b>stdout</b> , and <b>stderr</b>
<a href="#">_fdopen, wfdopen</a>	Associate stream with handle to open file
<a href="#">feof</a>	Test for end of file on stream
<a href="#">ferror</a>	Test for error on stream
<a href="#">fflush</a>	Flush stream to buffer or storage device
<a href="#">fgetc, fgetwc</a>	Read character from stream (function versions of <b>getc</b> and <b>getwc</b> )
<a href="#">_fgetchar, _fgetwchar</a>	Read character from <b>stdin</b> (function versions of <b>getchar</b> and <b>getwchar</b> )
<a href="#">fgetpos</a>	Get position indicator of stream
<a href="#">fgets, fgets</a>	Read string from stream
<a href="#">_fileno</a>	Get file handle associated with stream
<a href="#">_flushall</a>	Flush all streams to buffer or storage device
<a href="#">fopen, _wopen</a>	Open stream
<a href="#">fprintf, fwprintf</a>	Write formatted data to stream
<a href="#">fputc, fputwc</a>	Write a character to a stream (function versions of <b>putc</b> and <b>putwc</b> )
<a href="#">_fputchar, _fputwchar</a>	Write character to <b>stdout</b> (function versions of <b>putchar</b> and <b>putwchar</b> )
<a href="#">fputs, fputs</a>	Write string to stream
<a href="#">fread</a>	Read unformatted data from stream
<a href="#">freopen, _wfreopen</a>	Reassign <b>FILE</b> stream pointer to new file or device
<a href="#">fscanf, fwscanf</a>	Read formatted data from stream
<a href="#">fseek</a>	Move file position to given location
<a href="#">fsetpos</a>	Set position indicator of stream

<a href="#">_fsopen, _wfsopen</a>	Open stream with file sharing
<a href="#">ftell</a>	Get current file position
<a href="#">fwrite</a>	Write unformatted data items to stream
<a href="#">getc, getwc</a>	Read character from stream (macro versions of <b>fgetc</b> and <b>fgetwc</b> )
<a href="#">getchar, getwchar</a>	Read character from <b>stdin</b> (macro versions of <b>fgetchar</b> and <b>fgetwchar</b> )
<a href="#">gets, getws</a>	Read line from <b>stdin</b>
<a href="#">_getw</a>	Read binary <b>int</b> from stream
<a href="#">printf, wprintf</a>	Write formatted data to <b>stdout</b>
<a href="#">putc, putwc</a>	Write character to a stream (macro versions of <b>fputc</b> and <b>fputwc</b> )
<a href="#">putchar, putwchar</a>	Write character to <b>stdout</b> (macro versions of <b>fputchar</b> and <b>fputwchar</b> )
<a href="#">puts, _putws</a>	Write line to stream
<a href="#">_putw</a>	Write binary <b>int</b> to stream
<a href="#">rewind</a>	Move file position to beginning of stream
<a href="#">_rmtmp</a>	Remove temporary files created by <b>tmpfile</b>
<a href="#">scanf, wscanf</a>	Read formatted data from <b>stdin</b>
<a href="#">setbuf</a>	Control stream buffering
<a href="#">_setmaxstdio</a>	Set a maximum for the number of simultaneously open files at the stream I/O level.
<a href="#">setvbuf</a>	Control stream buffering and buffer size
<a href="#">_snprintf, _snwprintf</a>	Write formatted data of specified length to string
<a href="#">sprintf, swprintf</a>	Write formatted data to string
<a href="#">sscanf, swscanf</a>	Read formatted data from string
<a href="#">_tempnam, _wtempnam</a>	Generate temporary filename in given directory
<a href="#">tmpfile</a>	Create temporary file
<a href="#">tmpnam, _wtmpnam</a>	Generate temporary filename
<a href="#">ungetc, ungetwc</a>	Push character back onto stream
<a href="#">vfprintf, vfwprintf</a>	Write formatted data to stream
<a href="#">vprintf, vwprintf</a>	Write formatted data to <b>stdout</b>
<a href="#">_vsnprintf, _vsnwprintf</a>	Write formatted data of specified length to buffer
<a href="#">vsprintf, vswprintf</a>	Write formatted data to buffer