

C Library - <signal.h>

The **signal.h** header defines a variable type **sig_atomic_t**, two function calls, and several macros to handle different signals reported during a program's execution.

Library Variables

Following is the variable type defined in the header signal.h –

Sr.No.	Variable & Description
1	sig_atomic_t This is of int type and is used as a variable in a signal handler. This is an integral type of an object that can be accessed as an atomic entity, even in the presence of asynchronous signals.

Library Macros

Following are the macros defined in the header signal.h and these macros will be used in two functions listed below. The **SIG_** macros are used with the signal function to define signal functions.

Sr.No.	Macro & Description
1	SIG_DFL Default signal handler.
2	SIG_ERR Represents a signal error.
3	SIG_IGN Signal ignore.

The **SIG** macros are used to represent a signal number in the following conditions –

Sr.No.	Macro & Description
1	SIGABRT Abnormal program termination.
2	SIGFPE Floating-point error like division by zero.
3	SIGILL Illegal operation.
4	SIGINT Interrupt signal such as ctrl-C.
5	SIGSEGV Invalid access to storage like segment violation.
6	SIGTERM Termination request.

Library Functions

Following are the functions defined in the header signal.h –

Sr.No.	Function & Description
1	void (*signal(int sig, void (*func)(int)))(int) This function sets a function to handle signal i.e. a signal handler.
2	int raise(int sig) This function causes signal sig to be generated. The sig argument is compatible with the SIG macros.