NAME

set_constraint_handler_s, **abort_handler_s**, **ignore_handler_s** - runtime-constraint violation handling

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#define __STDC_WANT_LIB_EXT1__ 1

#include <stdlib.h>

constraint_handler_t
set_constraint_handler_s(*constraint_handler_t handler*);

Handler Prototype

typedef void
(*constraint_handler_t)(*const char * restrict msg*, *void * restrict ptr*, *errno_t error*);

Predefined Handlers

void
abort_handler_s(*const char * restrict msg*, *void * restrict ptr*, *errno_t error*);

void
ignore_handler_s(*const char * restrict msg*, *void * restrict ptr*, *errno_t error*);

DESCRIPTION

The **set_constraint_handler_s**() function sets the runtime-constraint violation handler to be *handler*.

The runtime-constraint handler is the callback function invoked when a library function detects a runtime-constraint violation.

The arguments are as follows:

msg   A pointer to a character string describing the runtime-constraint violation.

ptr   A NULL pointer.

error If the function calling the handler has a return type declared as *errno_t*, the return value of the function is passed. Otherwise, a positive value of type *errno_t* is passed.

Only the most recent handler registered with **set_constraint_handler_s**() is called when a runtime-constraint violation occurs.

The implementation has a default constraint handler that is used if no calls to the **set_constraint_handler_s**() function have been made. If the *handler* argument to **set_constraint_handler_s**() is a NULL pointer, the default handler becomes the current constraint handler.

The **abort_handler_s**() and **ignore_handler_s**() are the standard-defined runtime-constraint handlers provided by the C library.

The **abort_handler_s**() function writes the error message including the *msg* to stderr and calls the abort(3) function. The **abort_handler_s**() is currently the default runtime-constraint handler.

The **ignore_handler_s**() simply returns to its caller.

RETURN VALUES
The **set_constraint_handler_s**() function returns a pointer to the previously registered handler, or NULL if none was previously registered.

The **abort_handler_s**() function does not return to its caller.

The **ignore_handler_s**() function returns no value.

STANDARDS
The **set_constraint_handler_s**() function conforms to ISO/IEC 9899:2011 ("ISO C11") K.3.6.1.1.

AUTHORS
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