NAME

unw_get_proc_name -- get name of current procedure

SYNOPSIS

#include <libunwind.h>

int unw_get_proc_name(unw_cursor_t *cp, char *bufp, size_t len, unw_word_t *offp);

DESCRIPTION

The unw_get_proc_name() routine returns the name of the procedure that created the stack frame identified by argument cp. The bufp argument is a pointer to a character buffer that is at least len bytes long. This buffer is used to return the name of the procedure. The offp argument is a pointer to a word that is used to return the byte-offset of the instruction-pointer saved in the stack frame identified by cp, relative to the start of the procedure. For example, if procedure foo() starts at address 0x40003000, then invoking unw_get_proc_name() on a stack frame with an instruction-pointer value of 0x40003080 would return a value of 0x80 in the word pointed to by offp (assuming the procedure is at least 0x80 bytes long).

Note that on some platforms there is no reliable way to distinguish between procedure names and ordinary labels. Furthermore, if symbol information has been stripped from a program, procedure names may be completely unavailable or may be limited to those exported via a dynamic symbol table. In such cases, unw_get_proc_name() may return the name of a label or a preceeding (nearby) procedure. However, the offset returned through offp is always relative to the returned name, which ensures that the value (address) of the returned name plus the returned offset will always be equal to the instruction-pointer of the stack frame identified by cp.

RETURN VALUE

On successful completion, unw_get_proc_name() returns 0. Otherwise the negative value of one of the error-codes below is returned.

THREAD AND SIGNAL SAFETY

unw_get_proc_name() is thread-safe. If cursor cp is in the local address-space, this routine is also safe to use from a signal handler.

ERRORS

UNW_EUNSPEC

An unspecified error occurred.

UNW_ENOINFO

Libunwind was unable to determine the name of the procedure.

UNW_ENOMEM

The procedure name is too long to fit in the buffer provided. A truncated version of the name has been returned.

In addition, unw_get_proc_name() may return any error returned by the access_mem() call-back (see unw_create_addr_space(3)).

SEE ALSO

libunwind(3), unw_get_proc_info(3)

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