NAME

unw reg states iterate -- get register state info on current procedure

SYNOPSIS

#include libunwind.h>

int unw_reg_states_iterate(unw_cursor_t *cp, unw_reg_states_callbackcb, void *token);

DESCRIPTION

The unw_reg_states_iterate() routine provides information about the procedure that created the stack frame identified by argument cp. The cb argument is a pointer to a function of type unw_reg_states_callback which is used to return the information. The function unw_reg_states_callback has the following definition:

int (*unw_reg_states_callback)(void *token, void *reg_states_data, size_t reg_states_data_size, unw_word_t start_ip, unw_word_t end_ip);

The callback function may be invoked several times for each call of unw_reg_states_iterate. Each call is associcated with a instruction address range and a set of instructions on how to update register values when returning from the procedure in that address range. For each invocation, the arguments to the callback function are:

void * token

The token value passed to unw_reg_states_callback.

void * reg_states_data

A pointer to data about updating register values. This data, or a copy of it, can be passed to unw_apply_reg_state.

int reg_states_data_size

The size of the register update data.

unw_word_t start_ip

The address of the first instruction of the address range.

unw_word_t end_ip

The address of the first instruction beyond the end of the address range.

RETURN VALUE

On successful completion, unw reg states iterate() returns 0. If the callback function returns a nonzero

value, that indicates failure and the function returns immediately. Otherwise the negative value of one of the error-codes below is returned.

THREAD AND SIGNAL SAFETY

unw_reg_states_iterate() 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 locate unwind-info for the procedure.

UNW EBADVERSION

The unwind-info for the procedure has version or format that is not understood by libunwind.

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

SEE ALSO

libunwind(3), unw_apply_reg_state(3)

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