NAME

   unw_getcontext -- get initial machine-state

SYNOPSIS

   #include <libunwind.h>

   int unw_getcontext(unw_context_t *ucp);

DESCRIPTION

   The unw_getcontext() routine initializes the context structure pointed to by ucp with the machine-state of the call-site. The exact set of registers stored by unw_getcontext() is platform-specific, but, in general, at least all preserved (''callee-saved'') and all frame-related registers, such as the stack-pointer, will be stored.

   This routine is normally implemented as a macro and applications should not attempt to take its address.

PLATFORM-SPECIFIC NOTES

   On IA-64, unw_context_t has a layout that is compatible with that of ucontext_t and such structures can be initialized with getcontext() instead of unw_getcontext(). However, the reverse is *not* true and it is *not* safe to use structures initialized by unw_getcontext() in places where a structure initialized by getcontext() is expected. The reason for this asymmetry is that unw_getcontext() is optimized for maximum performance and does not, for example, save the signal mask.

RETURN VALUE

   On successful completion, unw_getcontext() returns 0. Otherwise, a value of -1 is returned.

THREAD AND SIGNAL SAFETY

   unw_getcontext() is thread-safe as well as safe to use from a signal handler.

SEE ALSO

   libunwind(3), unw_init_local(3)

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