

**NAME**

`unw_get_reg` -- get register contents

**SYNOPSIS**

```
#include <libunwind.h>
```

```
int unw_get_reg(unw_cursor_t *cp, unw_regnum_t reg, unw_word_t *valp);
```

**DESCRIPTION**

The `unw_get_reg()` routine reads the value of register `reg` in the stack frame identified by cursor `cp` and stores the value in the word pointed to by `valp`.

The register numbering is target dependent and described in separate manual pages (e.g., `libunwind-ia64(3libunwind)` for the IA-64 target). Furthermore, the exact set of accessible registers may depend on the type of frame that `cp` is referring to. For ordinary stack frames, it is normally possible to access only the preserved (“callee-saved”) registers and frame-related registers (such as the stack-pointer). However, for signal frames (see `unw_is_signal_frame(3libunwind)`), it is usually possible to access all registers.

Note that `unw_get_reg()` can only read the contents of registers whose values fit in a single word. See `unw_get_fpreg(3libunwind)` for a way to read registers which do not fit this constraint.

**RETURN VALUE**

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

**THREAD AND SIGNAL SAFETY**

`unw_get_reg()` is thread safe as well as safe to use from a signal handler.

**ERRORS**

`UNW_EUNSPEC`

An unspecified error occurred.

`UNW_EBADREG`

An attempt was made to read a register that is either invalid or not accessible in the current frame.

In addition, `unw_get_reg()` may return any error returned by the `access_mem()`, `access_reg()`, and `access_fpreg()` callbacks (see `unw_create_addr_space(3libunwind)`).

**SEE ALSO**

libunwind(3libunwind), libunwind-ia64(3libunwind), unw\_get\_fpreg(3libunwind),  
unw\_is\_signal\_frame(3libunwind), unw\_set\_reg(3libunwind)

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