

# Package ‘winch’

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**Title** Portable Native and Joint Stack Traces

**Version** 0.1.0

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**Description** Obtain the native stack trace and fuse it with R's  
stack trace for easier debugging of R packages with native code.

**License** GPL-3

**URL** <https://r-prof.github.io/winch/>, <https://github.com/r-prof/winch>

**BugReports** <https://github.com/r-prof/winch/issues>

**Imports** lifecycle, procmeps ( $\geq$  0.0.2)

**Suggests** DBI, knitr, magrittr, purrr, rlang ( $\geq$  0.4.8), rmarkdown,  
RSQLite, testthat ( $\geq$  3.0.0), vctrs

**VignetteBuilder** knitr

**Encoding** UTF-8

**Biarch** yes

**RoxygenNote** 7.2.3

**Config/testthat/edition** 3

**NeedsCompilation** yes

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winch_available	<i>Are native tracebacks available?</i>
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### Description

Returns TRUE if [winch\\_trace\\_back\(\)](#) is supported on this platform.

### Usage

```
winch_available()
```

### Value

A scalar logical.

### Examples

```
winch_available()
```

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winch_call	<i>Call an R function from native code</i>
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### Description

Primarily intended for testing.

### Usage

```
winch_call(fun, env = parent.frame())
```

### Arguments

fun	A function callable without arguments.
env	The environment in which to evaluate the function call.

### Value

The return value of `fun()`.

### See Also

[winch\\_stop\(\)](#)

**Examples**

```
foo <- function() {  
  winch_call(bar)  
}  
  
bar <- function() {  
  writeLines("Hi!")  
}  
  
foo()
```

---

winch\_init\_library      *Set library to collect symbols for native stack traces*

---

**Description**

On Windows, function names in native stack traces can be obtained for only one library at a time. Call this function to set the library for which to obtain symbols.

**Usage**

```
winch_init_library(path = NULL, force = FALSE)
```

**Arguments**

path	Path to the DLL.
force	Reinitialize even if the path to the DLL is unchanged from the last call.

**Value**

This function is called for its side effects.

**See Also**

[winch\\_call\(\)](#)

**Examples**

```
winch_init_library(getLoadedDLLs()[["rlang"]][["path"]])
```

**winch\_stop***Raise an error from native code*

---

**Description**

Primarily intended for testing.

**Usage**

```
winch_stop(message)
```

**Arguments**

message      The error message.

**Value**

This function throws an error and does not return.

**See Also**

[winch\\_call\(\)](#)

**Examples**

```
try(winch_stop("Test"))
```

---

**winch\_trace\_back***Native stack trace*

---

**Description**

This function returns the native stack trace as a data frame. Each native stack frame corresponds to one row in the returned data frame. Deep function calls come first, the last row corresponds to the running process's entry point.

**Usage**

```
winch_trace_back()
```

**Details**

On Windows, call [winch\\_init\\_library\(\)](#) to return function names for a specific package.

**Value**

A data frame with the columns:

- `func`: function name
- `ip`: instruction pointer
- `pathname`: path to shared library
- `is_libr`: a logical, TRUE if this entry is from R's shared library, determined via `procmaps::path_is_libr()` on the `pathname` component

**See Also**

[sys.calls\(\)](#) for the R equivalent.

**Examples**

```
winch_trace_back()

foo <- function() {
  winch_call(bar)
}

bar <- function() {
  winch_trace_back()
}

foo()
```

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