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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'feraiseexcept.3p' command

\$ man feraiseexcept.3p

FERAISEEXCEPT(3P) POSIX Programmer's Manual FERAISEEXCEPT(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

feraiseexcept ? raise floating-point exception

SYNOPSIS

```
#include <fenv.h>

int feraiseexcept(int excepts);
```

DESCRIPTION

The functionality described on this reference page is aligned with the ISO C standard. Any conflict between the requirements described here and the ISO C standard is unintentional. This volume of POSIX.1?2017 defers to the ISO C standard.

The `feraiseexcept()` function shall attempt to raise the supported floating-point exceptions represented by the `excepts` argument. The order in which these floating-point exceptions are raised is unspecified, except that if the `excepts` argument represents IEC 60559 valid coincident floating-point exceptions for atomic operations (namely overflow and inexact, or underflow and inexact), then overflow or underflow shall be raised before inexact. Whether the `feraiseexcept()` function

additionally raises the inexact floating-point exception whenever it raises the overflow or underflow floating-point exception is implementation-defined.

RETURN VALUE

If the argument is zero or if all the specified exceptions were successfully raised, `feraiseexcept()` shall return zero. Otherwise, it shall return a non-zero value.

ERRORS

No errors are defined.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

The effect is intended to be similar to that of floating-point exceptions raised by arithmetic operations. Hence, enabled traps for floating-point exceptions raised by this function are taken.

RATIONALE

Raising overflow or underflow is allowed to also raise inexact because on some architectures the only practical way to raise an exception is to execute an instruction that has the exception as a side-effect. The function is not restricted to accept only valid coincident expressions for atomic operations, so the function can be used to raise exceptions accrued over several operations.

FUTURE DIRECTIONS

None.

SEE ALSO

`feclearexcept()`, `fegetexceptflag()`, `fetestexcept()`

The Base Definitions volume of POSIX.1-2017, `<fenv.h>`

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