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

\$ man islessgreater.3p

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

islessgreater ? test if x is less than or greater than y

SYNOPSIS

```
#include <math.h>

int islessgreater(real-floating x, real-floating y);
```

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 `islessgreater()` macro shall determine whether its first argument is less than or greater than its second argument. The `islessgreater(x, y)` macro is similar to `(x) < (y) || (x) > (y)`; however, `islessgreater(x, y)` shall not raise the invalid floating-point exception when `x` and `y` are unordered (nor shall it evaluate `x` and `y` twice).

RETURN VALUE

Upon successful completion, the `islessgreater()` macro shall return the

value of $(x < y) \parallel (x > y)$.

If x or y is NaN, 0 shall be returned.

ERRORS

No errors are defined.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

The relational and equality operators support the usual mathematical relationships between numeric values. For any ordered pair of numeric values, exactly one of the relationships (less, greater, and equal) is true. Relational operators may raise the invalid floating-point exception when argument values are NaNs. For a NaN and a numeric value, or for two NaNs, just the unordered relationship is true. This macro is a quiet (non-floating-point exception raising) version of a relational operator. It facilitates writing efficient code that accounts for NaNs without suffering the invalid floating-point exception. In the SYNOPSIS section, `real-floating` indicates that the argument shall be an expression of real-floating type.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

`isgreater()`, `isgreaterequal()`, `isless()`, `islessequal()`, `isunordered()`

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

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