

NAG Library Function Document

nag_set_ieee_exception_mode (x07cbc)

1 Purpose

nag_set_ieee_exception_mode (x07cbc) sets the current IEEE exception halting mode.

2 Specification

```
#include <nag.h>
#include <nagx07.h>

void nag_set_ieee_exception_mode (const Integer exceptionmode[])
```

3 Description

nag_set_ieee_exception_mode (x07cbc) sets the current IEEE exception halting mode for the three common exceptions: overflow, divide-by-zero and invalid operation.

4 References

IEEE (2008) *Standard for Floating-Point Arithmetic IEEE Standard 754-2008* IEEE, New York.

5 Arguments

1: **exceptionmode**[3] – const Integer *Input*

On entry: each of the three elements of **exceptionmode** must contain any nonzero value if the corresponding condition should raise an exception, and contain 0 otherwise. **exceptionmode**[0] concerns floating-point overflow, **exceptionmode**[1] concerns floating-point division by zero, and **exceptionmode**[2] concerns floating-point invalid operation.

6 Error Indicators and Warnings

None.

7 Accuracy

Not applicable.

8 Parallelism and Performance

nag_set_ieee_exception_mode (x07cbc) is not threaded in any implementation.

9 Further Comments

None.

10 Example

See Section 10 in nag_is_finite (x07aac).