

NAG Library Function Document

nag_max_sine_argument (X02AHC)

1 Purpose

nag_max_sine_argument (X02AHC) returns the largest positive argument for which the C compiler run-time library functions sin and cos return a result with some meaningful accuracy.

2 Specification

```
#include <nag.h>
#include <nagx02.h>
double nag_max_sine_argument
```

3 Description

nag_max_sine_argument (X02AHC) is a constant defined in the C Header file.

The trigonometric functions sin and cos supplied in some compiler run-time libraries do not return accurate results when their argument is large. Often the related accuracy of a result gets progressively worse as the argument gets larger. nag_max_sine_argument (X02AHC) gives a value beyond which the compiler run-time library returns results with no relative accuracy at all. Note that some run-time libraries do return accurate results for all arguments to sin and cos.

4 References

None.

5 Arguments

None.

6 Error Indicators and Warnings

None.

7 Accuracy

None.

8 Parallelism and Performance

nag_max_sine_argument (X02AHC) is not threaded in any implementation.

9 Further Comments

None.

10 Example

None.