

# NAG Library Routine Document

## X06ABF

### 1 Purpose

X06ABF returns the number of OpenMP threads in the current team.

### 2 Specification

```
FUNCTION X06ABF ( )  
INTEGER X06ABF
```

### 3 Description

X06ABF, for multi-threaded implementations, returns the number of OpenMP threads in the current team. If the number of threads is deemed critical then you are advised to use X06ABF to retrieve this value as it may be less than that requested with either a call to X06AAF, your OMP\_NUM\_THREADS environment variable value or by using a `num_threads` clause on an OpenMP `parallel` directive.

The number of threads actually in use in a parallel region is dependent on several factors. Please refer to Section 4 for a full description of how the number of threads is chosen for a particular parallel region.

If this routine is called from a sequential part of a multi-threaded program then it will return the value 1.

In serial implementations of the NAG Library this routine will always return 1. See the X06 Chapter Introduction for a discussion of the behaviour of these routines when called in serial.

### 4 References

OpenMP Specifications <http://openmp.org/wp/OpenMP-Specifications>

Chapman B, Jost G and van der Pas R (2008) *Using OpenMP Portable Shared Memory Parallel Programming* The MIT Press

### 5 Parameters

None.

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

Not applicable.

### 8 Parallelism and Performance

Not applicable.

### 9 Further Comments

None.

## **10 Example**

See Section 10 in X06AAF for a demonstration of how to use X06ABF.

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