

f90_stat: STAT Error Code Module

December 21, 2022

1 Name

`f90_stat` — Module providing STAT error codes

2 Usage

USE F90_STAT

3 Synopsis

Parameters

`STAT_ALREADY_ALLOCATED`, `STAT_MEMORY_LIMIT_EXCEEDED`,
`STAT_NO_MEMORY`, `STAT_NOT_ALLOCATED`, `STAT_NOT_ASSOCIATED`,
`STAT_PART_OF_LARGER_OBJECT`, `STAT_POINTER_UNDEFINED`,
`STAT_WRONG_COLOUR`.

4 Parameter Description

`INTEGER,PARAMETER :: STAT_ALREADY_ALLOCATED`

An allocatable variable in an `ALLOCATE` statement is already currently allocated.

`INTEGER,PARAMETER :: STAT_MEMORY_LIMIT_EXCEEDED`

An allocation in an `ALLOCATE` statement requested more memory than the limit in this version of the NAG Fortran compiler.

`INTEGER,PARAMETER :: STAT_NO_MEMORY`

Insufficient free memory available to satisfy the requested allocation.

`INTEGER,PARAMETER :: STAT_NOT_ALLOCATED`

An allocatable variable in a `DEALLOCATE` statement is not currently allocated.

`INTEGER,PARAMETER :: STAT_NOT_ASSOCIATED`

A pointer in a `DEALLOCATE` statement is disassociated.

`INTEGER,PARAMETER :: STAT_PART_OF_A_LARGER_OBJECT`

A pointer in a DEALLOCATE statement refers to part of a larger object.

```
INTEGER,PARAMETER :: STAT_POINTER_UNDEFINED
```

A pointer in a DEALLOCATE statement is undefined. (This value is never returned to the user program, which is always immediately terminated if the use of an undefined pointer is detected.)

```
INTEGER,PARAMETER :: STAT_WRONG_COLOUR
```

A pointer in a DEALLOCATE statement is associated with a target that was not created by pointer allocation.

5 Example

```
USE f90_stat
REAL,ALLOCATABLE :: big(:,:,:)
INTEGER :: status
ALLOCATE(big(100,1024,1024),STAT=status)
IF (status==STAT_NO_MEMORY) PRINT *,'Out of memory'
```

6 Notes

The source code for this module may be found in the NAG Fortran runtime library directory (usually /usr/local/lib/NAG.Fortran).

7 See Also

nagfor(1), nag_modules(3).

8 Bugs

Please report any bugs found to ‘support@nag.co.uk’ or ‘support@nag.com’, along with any suggestions for improvements.