

NAG Library Function Document

nag_tsa_transf_orders (g13byc)

1 Purpose

nag_tsa_transf_orders (g13byc) allocates memory to the four pointers in the structure of type Nag_TransfOrder. The structure is used to hold the transfer function model orders of the input series for some functions in Chapter g13. This function **must** be called before any attempt is made to access this structure.

2 Specification

```
#include <nag.h>
#include <nagg13.h>
void nag_tsa_transf_orders (Integer nseries, Nag_TransfOrder *transfv,
    NagError *fail)
```

3 Description

The transfer function model orders of the input series are supplied to the time series function in memory allocated to four pointers. These pointers are the constituent members of the structure of type Nag_TransfOrder used by some functions in Chapter g13.

The purpose of nag_tsa_transf_orders (g13byc) is to allocate memory to these four pointers.

4 References

None.

5 Arguments

- 1: **nseries** – Integer *Input*
- On entry:* the total number of input and output series. There may be any number of input series (including none), but always one output series. (See nag_tsa_multi_inp_model_estim (g13bec) or nag_tsa_multi_inp_model_forecast (g13bjc) for details).
- Constraint:* **nseries** \geq 1.
- 2: **transfv** – Nag_TransfOrder *
- Pointer to structure of type Nag_TransfOrder with the following members:
- | | |
|----------------------|---------------|
| b – Integer * | <i>Output</i> |
| q – Integer * | <i>Output</i> |
| p – Integer * | |
| r – Integer * | <i>Output</i> |
- On exit:* each of the pointers will have been allocated sufficient memory. (See nag_tsa_multi_inp_model_estim (g13bec) or nag_tsa_multi_inp_model_forecast (g13bjc) for details).
- 3: **fail** – NagError * *Input/Output*
- The NAG error argument (see Section 3.6 in the Essential Introduction).

6 Error Indicators and Warnings

NE_ALLOC_FAIL

Dynamic memory allocation failed.

NE_INT_ARG_LT

On entry, **nseries** = *(value)*.
Constraint: **nseries** \geq 1.

7 Accuracy

Not applicable.

8 Parallelism and Performance

Not applicable.

9 Further Comments

None.

10 Example

See `nag_tsa_multi_inp_model_estim` (g13bec) and `nag_tsa_multi_inp_model_forecast` (g13bjc) for examples of how `nag_tsa_transf_orders` (g13byc) is used.
