

## NAG C Library Function Document

### nag\_full\_step\_regsn\_monit (g02ewc)

#### 1 Purpose

An example monitor function for nag\_full\_step\_regsn (g02efc).

#### 2 Specification

```
#include <nag.h>
#include <nagg02.h>

void nag_full_step_regsn_monit (Nag_FullStepwise flag, Integer var, double val,
                               NagError *fail)
```

#### 3 Description

Prints the progress of full stepwise selection of variables in a multiple regression to stdout.

#### 4 References

None.

#### 5 Arguments

- 1: **flag** – Nag\_FullStepwise *Input*  
*On entry:* the value of **flag** indicates the stage of the stepwise selection of explanatory variables.
- flag** = Nag\_AddVar  
Variable **var** was added to the current model.
- flag** = Nag\_BeginBackward  
Beginning the backward elimination step.
- flag** = Nag\_ColinearVar  
Variable **var** failed the collinearity test and is excluded from the model.
- flag** = Nag\_DropVar  
Variable **var** was dropped from the current model.
- flag** = Nag\_BeginForward  
Beginning the forward selection step
- flag** = Nag\_NoRemoveVar  
Backward elimination did not remove any variables from the current model.
- flag** = Nag\_BeginStepwise  
Starting stepwise selection procedure.
- flag** = Nag\_VarianceRatio  
The variance ratio for variable **var** takes the value **val**.

**flag = Nag\_FinishStepwise**

Finished stepwise selection procedure.

*Constraint:* **flag** = **Nag\_AddVar**, **Nag\_BeginBackward**, **Nag\_ColinearVar**, **Nag\_DropVar**, **Nag\_BeginForward**, **Nag\_NoRemoveVar**, **Nag\_BeginStepwise**, **Nag\_VarianceRatio** or **Nag\_FinishStepwise**.

- 2: **var** – Integer *Input*  
*On entry:* the index of the explanatory variable in the design matrix *Z* to which **flag** pertains.
- 3: **val** – double *Input*  
*On entry:* if **flag** = **Nag\_VarianceRatio** then **val** is the variance ratio value for the coefficient associated with explanatory variable index **var**.
- 4: **fail** – NagError \* *Input/Output*  
The NAG error argument (see Section 2.6 of the Essential Introduction).

## 6 Error Indicators and Warnings

None.

## 7 Accuracy

Not applicable.

## 8 Further Comments

None.

## 9 Example

See Section 9 of the document for nag\_full\_step\_regsn (g02efc).

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