

## NAG 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, Nag_Comm *comm)
```

#### 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, **val** is the variance ratio value for the coefficient associated with explanatory variable index **var**.
- 4: **comm** – Nag\_Comm \* *Communication Structure*  
The NAG communication argument (see Section 3.2.1.1 in the Essential Introduction).

## 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 nag\_full\_step\_regsn (g02efc).

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