

NAG Toolbox for MATLAB

g05cg

1 Purpose

g05cg restores the values of the seeds used by the generator mechanism (see the G05 Chapter Introduction) after a previous call to g05cf. g05cg is for use only with the group of functions g05ca–g05hd.

2 Syntax

```
[ifail] = g05cg(ia, xa, 'ni', ni, 'nx', nx)
```

3 Description

g05cg restores the state of the generator used, using information saved by a previous call to g05cf.

4 References

None.

5 Parameters

5.1 Compulsory Input Parameters

1: **ia(ni)** – **int32** array

Information about the generator, which must be unchanged from the previous call to g05cf.

2: **xa(nx)** – **double** array

Information about the generator, which must be unchanged from the previous call of g05cf.

5.2 Optional Input Parameters

1: **ni** – **int32** scalar

Default: The dimension of the array **ia**.

Constraint: $ni \geq 9$.

2: **nx** – **int32** scalar

Default: The dimension of the array **xa**.

Constraint: $nx \geq 4$.

5.3 Input Parameters Omitted from the MATLAB Interface

None.

5.4 Output Parameters

1: **ifail** – **int32** scalar

0 unless the function detects an error (see Section 6).

6 Error Indicators and Warnings

Errors or warnings detected by the function:

ifail = 1

On entry, **ni** < 9,
or **nx** < 4.

ifail = 2

On entry, **ia** or **xa** has been corrupted since the previous call to g05cf.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

```
ia = [int32(0);  
      int32(17354);  
      int32(14855);  
      int32(9908);  
      int32(7396);  
      int32(49513);  
      int32(0);  
      int32(0);  
      int32(0)];  
xa = [1;  
      2;  
      3;  
      6];  
g05za('O');  
g05cb(int32(0));  
[ifail] = g05cg(ia, xa)  
  
ifail =  
      0
```