G05CCF – NAG Fortran Library Routine Document

Note. Before using this routine, please read the Users' Note for your implementation to check the interpretation of bold italicised terms and other implementation-dependent details.

1 Purpose

G05CCF sets the seed used by the basic generator in the Chapter Introduction to a non-repeatable initial value.

2 Specification

```
SUBROUTINE G05CCF()
```

3 Description

This routine sets the internal seed used by the basic generator (see G05CAF) to a value n_0 calculated from the setting of the real-time clock. It then generates the value n_1 and discards it.

This routine will yield different subsequent sequences of random numbers in different runs of the calling program. It should be noted that there is no guarantee of statistical properties between sequences, only within sequences.

4 References

None.

5 Parameters

None.

6 Error Indicators and Warnings

None.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

The example program prints the fist five pseudo-random real numbers from a uniform distribution between 0 and 1, generated by G05CCF. The program should give **different** results each time it is run.

9.1 Program Text

Note. The listing of the example program presented below uses bold italicised terms to denote precision-dependent details. Please read the Users' Note for your implementation to check the interpretation of these terms. As explained in the Essential Introduction to this manual, the results produced may not be identical for all implementations.

```
*     G05CCF Example Program Text
*     Mark 14 Revised.  NAG Copyright 1989.
*     .. Parameters ..
      INTEGER          NOUT
      PARAMETER        (NOUT=6)
*     .. Local Scalars ..
      real             X
      INTEGER          I
*     .. External Functions ..
      real             G05CAF
      EXTERNAL         G05CAF
*     .. External Subroutines ..
      EXTERNAL         G05CCF
*     .. Executable Statements ..
      WRITE (NOUT,*) 'G05CCF Example Program Results'
      WRITE (NOUT,*)
*
      CALL G05CCF
*
      DO 20 I = 1, 5
         X = G05CAF(X)
         WRITE (NOUT,99999) X
   20 CONTINUE
      STOP
*
99999 FORMAT (1X,F10.4)
      END
```

9.2 Program Data

None.

9.3 Program Results

```
 G05CCF Example Program Results

     0.2688
     0.5549
     0.3503
     0.5178
     0.4432
```