NAME

airan − Single-precision pseudo-random integer in (x..y)

SYNOPSIS

Fortran (77, 90, 95, HPF):

f77 *[flags] file(s) . . . -L/usr/local/lib -lgjl*

REAL FUNCTION airan(x,y)

REAL   x,   y

C (K&R, 89, 99), C++ (98):

cc *[flags] -I/usr/local/include file(s) . . . -L/usr/local/lib -lgjl*

Use

#include <gampsi.h>

to get this prototype:

fortran_real airan(const fortran_real * x_, const fortran_real * y_);

NB: The definition of C/C++ data types **fortran_** *xxx*, and the mapping of Fortran external names to C/C++ external names, is handled by the C/C++ header file. That way, the same function or subroutine name can be used in C, C++, and Fortran code, independent of compiler conventions for mangling of external names in these programming languages.

Last code modification: 30-Jul-2000

DESCRIPTION

Return a pseudo-random integer value, represented in single precision, in the range (**x**. .**y**), excluding end-point **y**, where **x >= y** (a relation that is NOT checked).

The range of representable integers is 0 . . (2**p - 1), where p is the number of bits in the significand of a single-precision number.

In IEEE 754 single-precision arithmetic, p = 23, corresponding to the range 0 . . 8388608 (about 0 . . 8.28e+6).

SEE ALSO

diran(3), **qiran**(3).

AUTHORS

The algorithms and code are described in detail in the paper

Algorithm xxx: Quadruple-Precision Gamma(x) and psi(x) Functions for Real Arguments

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Nelson H. F. Beebe
Center for Scientific Computing
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
Tel: +1 801 581 5254
FAX: +1 801 581 4148
Email: beebe@math.utah.edu, beebe@acm.org, beebe@computer.org
WWW URL: http://www.math.utah.edu/˜beebe

and

James S. Ball
University of Utah
Department of Physics
Salt Lake City, UT 84112-0830
USA
Tel: +1 801 581 8397
FAX: +1 801 581 6256
Email: ball@physics.utah.edu

WWW URL: `http://www.physics.utah.edu/people/faculty/ball.html`