Intrinsic functions in Fortran

Type	Function	Description
Mathematical	`abs(x)`	Absolute value of `x`
	`mod(x,y)`	Remainder of `x/y` division
	`dim(x,y)`	Difference `x-y` if positive, 0 otherwise
	`ceiling(x)`	Least integer greater or equal to `x`
	`floor(x)`	Greatest integer smaller of equal to `x`
	`sign(x)`	Sign of a number
	`max(x)`	Maximum
	`min(x)`	Minimum value from
	`sqrt(x)`	Square root of `x`
	`exp(x)`	Exponential
	`log(x)`	Natural logarithm
	`log10(x)`	Common logarithm
	`sin(x)`	Sine
	`cos(x)`	Cosine
	`tan(x)`	Tangent
	`asin(x)`	Arcsine
	`acos(x)`	Arccosine
	`atan(x)`	Arctangent
	`sinh(x)`	Hyperbolic sine
	`cosh(x)`	Hyperbolic cosine
	`tanh(x)`	Hyperbolic tangent
	`erf(x)`	Error function of `x`
	`erfc(x)`	Complimentary error function of `x`
	`conjg(z)`	Complex conjugate of `z`
Array	`allocate(x(n))`	Allocate memory for x
	`deallocate(x)`	Deallocate memory
	`allocated(x)`	Checks if `x` has been allocated

	size(A,[DIM])	Size of array along dimension DIM or total number of elements
	maxval(A,[DIM=])	Maximum value
	maxloc(A,[DIM=])	Location of max value
	product(x, [DIM=])	Product of elements
	sum(x,[DIM=])	Sum of elements
	transpose(A)	Matrix transposition
	dot_product(x,y)	Vector dot product of two arrays
	matmul(A,B)	matrix multiply of A and B matrices
	all(MASK,[DIM=])	true if all elements satisfy MASK
	any(MASK,[DIM=])	true if any element satisfies MASK
	count(MASK, [DIM=])	Counts all elements that satisfy MASK
	shape(A)	returns vector with shape of the array
String	adjustr(string)	Adjust right
	adjustl(string)	Adjust left
	trim(string)	Removes trailing spaces

Intrinsic subroutines

Subroutine	Description
date_and_time	Access system date and time
random_number(x)	random number generator
random_seed(x)	Initial value for random generator algorithm
mvbits	Memory copy
system_clock	Access system clock
cpu_time	Processor time [seconds]
execute_command_line	execute system command