

Package: RhpcBLASctl (via r-universe)

September 19, 2024

Version 0.23-42

Date 2023-02-11

Title Control the Number of Threads on 'BLAS'

Author Junji NAKANO <nakanoj@ism.ac.jp> and Ei-ji Nakama
<nakama@ki.rim.or.jp>

Maintainer Ei-ji Nakama <nakama@ki.rim.or.jp>

Description Control the number of threads on 'BLAS' (Aka 'GotoBLAS', 'OpenBLAS', 'ACML', 'BLIS' and 'MKL'). And possible to control the number of threads in 'OpenMP'. Get a number of logical cores and physical cores if feasible.

License AGPL-3

URL <https://prs.ism.ac.jp/~nakama/Rhpc/>

ByteCompile true

NeedsCompilation yes

Repository CRAN

Date/Publication 2023-02-11 01:00:02 UTC

Contents

| | |
|-------------------------------|----------|
| RhpcBLASctl-package | 1 |
| Index | 4 |

RhpcBLASctl-package *Control the number of threads on BLAS*

Description

Control the number of threads on 'BLAS' (Aka 'GotoBLAS', 'ACML' and 'MKL').

If you build R directly on Windows and the BLAS file name is not 'Rblas.dll', you can give it as 'options("RhpcBLASctl.win.Rblas.name" = "boofoo.dll")'.

openmp-related functions only work at build-time instructions. `omp_get *` now returns `NA_Integer` if R was not built with openmp instructions. NOTE: if R itself is built without OpenMP instructions and BLAS thread is used with OpenMP, this package will not work...XD

Usage

```
get_num_cores()
get_num_procs()
blas_get_num_procs()
blas_set_num_threads(threads)
omp_get_num_procs()
omp_get_max_threads()
omp_set_num_threads(threads)
```

Arguments

threads Number of threads

Details

<https://prs.ism.ac.jp/~nakama/Rhpc/>

Value

```
get_num_cores    Number of CPU physical processor. NOTE:Returns 1L if unknown
get_num_procs    Number of CPU logical processor. NOTE:Returns 1L if unknown
blas_get_num_procs
                  Number of available cores for the optimized BLAS. NOTE:Returns 1L if un-
                  known
omp_get_num_procs
                  Result from OpenMP's omp_get_num_procs function. NOTE Returns NA_integer_
                  if unknown
omp_get_max_threads
                  Result from OpenMP's omp_get_max_threads function. NOTE Returns NA_integer_
                  if unknown
```

Author(s)

Junji NAKANO <nakanoj@ism.ac.jp> and Ei-ji Nakama<nakama@com-one.com> Maintainer:
Ei-ji Nakama <nakama@com-one.com>

Examples

```
get_num_cores()  
get_num_procs()  
blas_get_num_procs()  
blas_set_num_threads(2)  
omp_get_num_procs()  
omp_get_max_threads()  
omp_set_num_threads(2)
```

Index

* **utilities**

RhpcBLASctl-package, [1](#)

blas_get_num_procs
(RhpcBLASctl-package), [1](#)

blas_set_num_threads
(RhpcBLASctl-package), [1](#)

get_num_cores (RhpcBLASctl-package), [1](#)

get_num_procs (RhpcBLASctl-package), [1](#)

omp_get_max_threads
(RhpcBLASctl-package), [1](#)

omp_get_num_procs
(RhpcBLASctl-package), [1](#)

omp_set_num_threads
(RhpcBLASctl-package), [1](#)

RhpcBLASctl-package, [1](#)