

MemUse

May 24, 2013

pbdBASE-package

Core pbd Classes and Methods

Description

A package contains the basic methods for dealing with distributed data types, as well as the data types themselves.

Details

Package: pbdBASE
Type: Package
License: GPL
LazyLoad: yes

This package requires an MPI library (OpenMPI, MPICH2, or LAM/MPI).

Author(s)

Drew Schmidt <schmidt AT math.utk.edu>, Wei-Chen Chen, George Ostrouchov, and Pragneshkumar Patel.

References

Programming with Big Data in R Website: <http://r-pbd.org/>

ddmatrix-class

Class fs

Description

Distributed matrix class.

Creating Objects

```
new('ddmatrix', Data = ..., dim = ..., ldim = ..., bldim = ..., ICTXT = ...)
```

Slots

- Data: LOCAL: Object of class `matrix`
- dim: GLOBAL: Object of class `numeric`
- ldim: LOCAL: Object of class `numeric`
- bldim: GLOBAL: Object of class `numeric`
- ICTXT: GLOBAL: Object of class `numeric`

Prototype

- matrix Data** `matrix(0.0)`
- numeric dim** `c(1,1)`
- numeric ldim** `c(1,1)`
- numeric bldim** `c(1,1)`
- numeric ICTXT** `0`

Details

`ddmatrix` is the container for ScaLAPACK-friendly parallel block-cyclically distributed matrices. The class object is instantiated in SPMD fashion, whereby each process owns a piece of the "whole" matrix (which no single R process need ever own in its entirety), and each process stores its piece of the whole into a container with a name common to all processes.

See Also

[InitGrid](#), [SlotAccessors](#)

Control Variables	<i>Control Variables for the fs Package.</i>
-------------------	--

Description

This set of controls is used to provide default values for many functions in this package.

Environment	<i>Environment for the fs Package</i>
-------------	---------------------------------------

Description

The environment for the fs package.

Index

*Topic **Classes**

ddmatrix-class, [1](#)

*Topic **Package**

pbdbASE-package, [1](#)

.NAMES (Control Variables), [2](#)

.PREFIX (Control Variables), [2](#)

.UNIT (Control Variables), [2](#)

.fs_envir (Environment), [2](#)

Control Variables, [2](#)

ddmatrix-class, [1](#)

Environment, [2](#)

fs (ddmatrix-class), [1](#)

fs-class (ddmatrix-class), [1](#)

InitGrid, [2](#)

pbdbASE-package, [1](#)

SlotAccessors, [2](#)