

# MemUse

May 25, 2013

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pbdBASE-package

*Core pbd Classes and Methods*

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## 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)

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## References

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

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ddmatrix-class

*Class fs*

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## 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](#)

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

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

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

The environment for the fs package.

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