Package ‘xtensor’

Type Package

Title Headers for the ‘xtensor’ Library

Version 0.13.2-0

Author Johan Mabille, Sylvain Corlay and Wolf Vollprecht

Maintainer Sylvain Corlay <sylvain.corlay@gmail.com>

Description The ‘xtensor’ C++ library for numerical analysis with multi-dimensional array expressions is provided as a header-only C++14 library. It offers an extensible expression system enabling lazy broadcasting; an API following the idioms of the C++ standard library; and tools to manipulate array expressions and build upon ‘xtensor’.

URL https://github.com/xtensor-stack/xtensor

License BSD_3_clause + file LICENSE

Encoding UTF-8

Imports Rcpp

LinkingTo Rcpp

LazyData true

Biarch true

Suggests testthat

NeedsCompilation yes

Repository CRAN

Date/Publication 2021-03-01 09:40:02 UTC

R topics documented:

xtensor-package .......................................................... 2
xtensor_r_example ...................................................... 2

Index 4
xtensor-package

R bindings for the xtensor C++ multi-dimensional array library.

Description

xtensor is a C++ library for multi-dimensional arrays enabling numpy-style broadcasting and lazy computing. xtensor-r enables inplace use of R arrays in C++ with all the benefits from xtensor

- C++ universal functions and broadcasting
- STL - compliant APIs.
- A broad coverage of numpy APIs (see the numpy to xtensor cheat sheet at https://xtensor.readthedocs.io/en/latest/numpy.html).

xtensor-r can be used either to author C++ extensions for R with Rcpp, or applications that embed the R interpreter with RInside.

Details

This section should provide a more detailed overview of how to use the package, including the most important functions.

Author(s)

Sylvain Corlay, Wolf Vollprecht, Johan Mabille
Maintainer: Sylvain Corlay <sylvain.corlay@gmail.com>

See Also

Development for xtensor can be followed via the GitHub repository at https://github.com/xtensor-stack/xtensor.

xtensor_r_example

Simple function using xtensor-r

Description

Simple function using xtensor-r

Usage

xtensor_r_example(tens)

Arguments

tens The tensor to be processed
xtensor_r_example

Examples

```r
## Not run:
xtensor_r_example()

## End(Not run)
```
Index

* numpy
  xtensor-package, 2

* tensor
  xtensor-package, 2

xtensor (xtensor-package), 2
xtensor-package, 2
xtensor_r_example, 2