

Package: ZarrDataFrame (via r-universe)

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Title Bioconductor-friendly Bindings for Zarr

Description Implements bindings for zarr store that are compatible with Bioconductor S4 data structures, namely the DataFrame and DelayedArray. This allows Zarr-backed data to be easily used as data frames with arbitrary sets of columns

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Depends DelayedArray, S4Vectors

Imports stats, utils, methods, BiocGenerics, Rarr, ZarrArray

Suggests testthat (>= 3.0.0), knitr

biocViews DataRepresentation, Infrastructure, Software

VignetteBuilder knitr

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Config/testthat/edition 3

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Repository <https://bimsbbioinfo.r-universe.dev>

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open_zarr	<i>open_zarr</i>
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Description

open zarr store

Usage

```
open_zarr(dir, name)
```

Arguments

dir	the location of zarr store
name	name of the zarr store

ZarrColumnSeed	<i>Column of an Zarr-based data frame</i>
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Description

Represent a column of a Zarr-based data frame as a 1-dimensional [DelayedArray](#). This allows us to use Zarr-backed data inside [DataFrames](#) without loading them into memory.

Usage

```
ZarrColumnSeed(path, name, column, type = NULL, length = NULL)
```

```
ZarrColumnVector(x, ...)
```

Arguments

path	String containing a path to a Zarr-based data frame.
name	String containing the Zarr group of the Zarr file.
column	String containing the name of the column inside the Zarr file.
type	String specifying the type of the data. If NULL, this is determined by inspecting the file. Users may specify this to avoid a look-up, or to coerce the output into a different type.
length	Integer containing the number of rows. If NULL, this is determined by inspecting the file. This should only be supplied for efficiency purposes, to avoid a file look-up on construction.
x	Either a string containing the path to an Zarr-based data frame file (to be used as path), or an existing ZarrColumnSeed object.
...	Further arguments to be passed to the ZarrColumnSeed constructor.

Value

For ZarrColumnSeed, a ZarrColumnSeed is returned, obviously.

For ZarrColumnVector, a ZarrColumnVector is returned.

Author(s)

Artür Manukyan

zarrcreateGroup	<i>zarrcreateGroup</i>
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Description

get information of an ImgArray object

Usage

```
zarrcreateGroup(store, name)
```

Arguments

store	the location of (zarr) store
name	name of the group

ZarrDataFrame	<i>Zarr-backed DataFrame</i>
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Description

Create a Zarr-backed [DataFrame](#), where the data are kept on disk until requested.

Usage

```
ZarrDataFrame(tab, name, columns = NULL, nrows = NULL)
```

Arguments

tab	A set of ZarrArrays that are the columns of a data frame.
name	String containing the Zarr group of the Zarr file.
columns	Character vector containing the names of columns in a Zarr-based data frame. If NULL, this is determined from path.
nrows	Integer scalar specifying the number of rows in a Zarr-based data frame. If NULL, this is determined from path.

Value

A ZarrDataFrame where each column is a [ZarrColumnVector](#).

Author(s)

Artür Manukyan

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