Package 'rhdf5client'

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Title Access HDF5 content from h5serv

Description Provides functionality for reading data from h5serv server from within R.

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Imports S4Vectors, httr, R6, rjson, utils

Depends R (>= 3.6), methods, DelayedArray

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LazyLoad yes

BiocViews infrastructure

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as *coercion for remote array to remote matrix*

Description

coercion for remote array to remote matrix

Coercion method from HSDSMatrix to its superclass HSDSArray

See Also

Other HSDSArray: `HSDSArray`, `HSDSMatrix`

dataset *Find a dataset on source from its name*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
dataset(h5s, tag)
```

Arguments

`h5s`	instance of H5S_source
`tag`	character string identifying a dataset

Value

object of type H5S_dataset

dim *Obtain dimensions of an object of type HSDSArraySeed*

Description

(required by DelayedArray seed contract) HDF server content is assumed transposed relative to R matrix layout. This anticipates H5 datasets on the server with rows for experimental samples and columns for *-omic features. The Bioconductor SummarizedExperiment requires *-omic features in rows and samples in columns.

Usage

```
## S4 method for signature 'HSDSArraySeed'
dim(x)
```

Arguments

x	An object of type HSDSArraySeed

Value

A numeric vector of the dimensions

---

dim,H5S_ArraySeed-method *HDF Server content is assumed transposed relative to R matrix layout*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
## S4 method for signature 'H5S_ArraySeed'
dim(x)
```

Arguments

x	instance of H5S_ArraySeed

Value

integer(2) vector of dimensions corresponding to R's layout, assuming 2-d data

---

dimnames *Obtain names of dimensions for an object of type HSDSArraySeed*

Description

(required by DelayedArray seed contract, returns NULL list)

Usage

```
## S4 method for signature 'HSDSArraySeed'
dimnames(x)
```

Arguments

x	An object of type HSDSArraySeed

Value

A NULL list of length equal to the array dimensionality

dimnames,H5S_ArraySeed-method *dimnames not stored with H5S_source as of Jan 2018*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
## S4 method for signature 'H5S_ArraySeed'
dimnames(x)
```

Arguments

x	instance of H5S_ArraySeed

Value

currently returns list(NULL, NULL) as we do not store dimnames in HDF5

domains *HSDS server domains accessor*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
domains(object, ...)
```

Arguments

object	H5S_source instance
...	not used

Value

a data frame with domains name

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server connection
setPath(hsdsCon, "/home/stvjc/")-> hsds
domains(hsds)
```

dsmeta *list information about datasets available in an H5S_source*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
dsmeta(src)
```

Arguments

src	H5S_source instance

Value

data frame with one row for each group and three columns. The second column has the list of datasets in the group.

Examples

```
## Not run:
bigec2 = H5S_source(URL_h5serv())
dsm <- dsmeta(bigec2)
dst <- unlist(dsm[1,2])    # all dataset candidates in group 1

## End(Not run)
```

extract_array *Access dataset backed by an HSDSArraySeed*

Description

Access dataset backed by an HSDSArraySeed

Usage

```
## S4 method for signature 'HSDSArraySeed'
extract_array(x, index)
```

Arguments

x	An object of type HSDSArraySeed
index	A list of numeric vectors to be accessed, one vector for each dimension of the array object. A NULL vector indicates the entire range of indices in that dimension. A zero-length vector indicates no indices in the relevant dimension. (Accordingly, any zero-length vector of indices will result in an empty array being returned.)

Value

An array containing the data elements corresponding to the indices requested

---

`fetchDatasets` *fetch datasets of a hdf5 file from the hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
fetchDatasets(object)
```

Arguments

`object`	instance of H5S_source

Value

data.frame with information about the datasets in the file

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
hsdsCon@folderPath="/home/stvjc/hdf5_mat.h5"
ds = fetchDatasets(hsdsCon)
ds
```

`getData` *extract elements of a one or two-dimensional HSDSDataset*

Description

Fetch data from a remote dataset

Usage

```
getData(dataset, indices, transfermode)

## S4 method for signature 'HSDSDataset,character,character'
getData(dataset, indices,
  transfermode)

## S4 method for signature 'HSDSDataset,character,missing'
getData(dataset, indices)

## S4 method for signature 'HSDSDataset,list,character'
getData(dataset, indices,
  transfermode)

## S4 method for signature 'HSDSDataset,list,missing'
getData(dataset, indices)
```

Arguments

dataset	An object of type HSDSDataset, the dataset to access.
indices	The indices of the data to fetch
transfermode	Either (default) 'JSON' or 'binary'

Details

The servers require data to be fetched in slices, i.e., in sets of for which the indices of each dimension are of the form start:stop:step. More complex sets of indices will be split into slices and fetched in multiple requests. This is opaque to the user, but may enter into considerations of data access patterns, e.g., for performance-tuning.

Value

an Array containing the data fetched from the server

Examples

```
s <- HSDSSource('http://hsdshdflab.hdfgroup.org')
f <- HSDSFile(s, '/shared/bioconductor/tenx_full.h5')
d <- HSDSDataset(f, '/newassay001')
x <- getData(d, c('1:4', '1:27998'), transfermode='JSON')
# x <- getData(d, c(1:4, 1:27998), transfermode='JSON') # method missing?
x <- d[1:4,1:27998]
```

---

getDatasetAttrs *getDatasetAttrs from hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
getDatasetAttrs(object, duid)
```

Arguments

object	instance of H5S_source(updated object with path to file set)
duid	character string with dataset uuid

Value

list of data obtained

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
hsdsCon@folderPath="/home/stvjc/hdf5_mat.h5"
ds = fetchDatasets(hsdsCon)# Pick the ID of the dataset you are interested in
getDatasetAttrs(hsdsCon, "d-a9e4b71c-8ea2-11e8-9306-0242ac120022")
```

getDatasetSlice *getDatasetSlice from hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
getDatasetSlice(object, dsindex = 1, selectionString, ...)
```

Arguments

object	instance of H5S_source(updated object with path to file set)
dsindex	dataset index
selectionString	character with selectionString
...	unused

Value

list of data obtained

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
setPath(hsdsCon, "/home/stvjc/hdf5_mat.h5")-> hsds
getDatasetSlice(hsds,dsindex=1,selectionString="[1:2,1:5]")
```

getDatasetUUIDs *getDatasetUUIDs from hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
getDatasetUUIDs(object)
```

Arguments

object	instance of H5S_source(updated object with path to file set)

Value

character of dataset uuid obtained

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
setPath(hsdsCon, "/home/stvjc/hdf5_mat.h5")-> hsds
getDatasetUUIDs(hsds)
```

getDims *getDims from hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
getDims(object, duid)
```

Arguments

object	instance of H5S_source(updated object with path to file set)
duid	character string with dataset uuid

Value

numeric content of dimensions

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
setPath(hsdsCon, "/home/stvjc/hdf5_mat.h5")-> hsds
duid <- 'd-a9e4b71c-8ea2-11e8-9306-0242ac120022'
getDims(hsds, duid)
```

getHRDF *getHRDF from hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
getHRDF(object, duid)
```

Arguments

object	instance of H5S_source(updated object with path to file set)
duid	character string with dataset uuid

Value

DataFrame of data obtained

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
hsdsCon@folderPath="/home/stvjc/hdf5_mat.h5"
ds = fetchDatasets(hsdsCon) #Pick the ID of the dataset you are interested in
getHRDF(hsdsCon, "d-a9e4b71c-8ea2-11e8-9306-0242ac120022")
```

getReq — *list information about server content available in an H5S_source hsds instance*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
getReq(src)
```

Arguments

src	H5S_source instance

Value

data frame with 5 columns for one row for each user's data

groups — *HDF5 server data groups accessor*

Description

HDF5 server data groups accessor

Usage

```
groups(object, index, ...)

## S4 method for signature 'H5S_source,missing'
groups(object, index, ...)

## S4 method for signature 'H5S_source,numeric'
groups(object, index, ...)
```

Arguments

object	H5S_source instance This function is deprecated and will be defunct in the next release.
index	numeric, if present, extracts metadata about selected group (sequential ordering of groups as returned by server) access for group information for HDF5 server
...	not used

Value

a data frame with group name and number of links for each group

Examples

```
## Not run:
bigec2 = H5S_source(URL_h5serv())
groups(bigec2)

## End(Not run)
```

`H5S_Array` *create H5S_Array instance given url (filepath) and entity (host) name*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
H5S_Array(endpoint, filepath, host)
```

Arguments

`endpoint`	a character(1) URL to port for HDF Server
`filepath`	path and name of the H5 file
`host`	a character(1) name of 'host' in server

Value

an instance of `DelayedArray-class`

Examples

```
# The true values from yriMulti data element 'banovichSE':
# > assay(banovichSE[c(1:5,329465:329469),c(1:3,63:64)])
#                    NA18498    NA18499    NA18501  |    NA18489     NA18909
# cg00000029      0.47339629  1.2943041 -0.8084735  |  0.6708168 -0.86093022
# cg00000165      1.23640861  0.2099817 -0.2683763  |  0.4446088  0.99868231
# cg00000236     -0.22258183  1.6236857 -0.8654838  |  0.1958195 -0.06090929
# cg00000289      0.65720581  0.5527470 -1.8458295  | -0.4618782  0.34934164
# cg00000363     -0.15063083  0.7498020  0.3254333  |  0.7342878  0.12940774
# #-------------------------------------------------------------------------
# ch.9.98936572R -0.07954958  0.2139431 -0.4719621  |  0.6835012  0.57758798
# ch.9.98937537R  0.04254705  1.0702770  1.7356387  | -0.1531732 -1.52889773
# ch.9.98959675F -1.59253143  0.2982456 -1.1954030  | -1.3703135  0.28974909
# ch.9.98989607R -1.80646652  0.4760022  1.4771808  |  0.9479602  0.49921375
# ch.9.991104F    0.08180195 -0.2434306  1.0281002  | -0.1653721  0.55612215
#
```

`H5S_Array-class` *extension of DelayedArray for HDF Server content*

Description

extension of DelayedArray for HDF Server content

H5S_ArraySeed-class *H5S_Array for HDF Server content*

Description

H5S_Array for HDF Server content

H5S_dataset *construct H5S_dataset object*

Description

This function is deprecated and will be defunct in the next release.

Slots

`source` instance of H5S_source instance
`simpleName` character string naming dataset
`shapes` list including dimension information
`hrefs` DataFrame of hrefs as defined in the API
`allatts` list of all attributes
`presel` string prepared for select operation in GET
`transfermode` default "JSON" or "binary" for binary transfer

H5S_dataset2 *H5S_dataset2 for datasets in hsds server*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
H5S_dataset2(object, duid)
```

Arguments

`object`	instance of H5S_source(updated object with path to file set)
`duid`	character vector with dataset uuid of interest

Value

H5S_dataset object

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server
hsdsCon@folderPath="/home/stvjc/hdf5_mat.h5"
ds = fetchDatasets(hsdsCon) #Pick the dataset id of interest
H5S_dataset2(hsdsCon, "d-a9e4b71c-8ea2-11e8-9306-0242ac120022")
```

H5S_Matrix-class *extension of DelayedMatrix for HDF Server content*

Description

extension of DelayedMatrix for HDF Server content

H5S_source *H5S_source identifies an HDF5/HSDS server and manages some metadata about contents*

Description

This class is deprecated and will be defunct in the next release.

This function is deprecated and will be defunct in the next release.

Usage

```
H5S_source(serverURL, domain, ...)
```

Arguments

serverURL	a URL for a port for HDF5Server
domain	character string with path to file for HSDS
...	not used

Value

an initialized object of type H5S_source

Slots

serverURL character string with a URL

dsmeta DataFrame instance with metadata about content of h5serv server

dmains DataFrame instance with metadata about the content of hsds server

getReq DataFrame instance with metadata about hsds server

folderPath character string with path to user's folder/file on hsds server

Note

The dsmeta slot holds a DataFrame with a column dsnames that is a list with ith element a character vector of all dsnames available for the ith group. There is no effort at present to search all groups for candidate datasets.

If the domain for the HSDS server is known, pass the domain path as a character string along with ther serverURL

Examples

```
## Not run:
bigec2 = H5S_source(URL_h5serv()) # h5serv
bigec2
dsmeta(bigec2)[1:2,]       # two groups
dsmeta(bigec2)[1,2][[1]]   # all dataset candidates in group 1

## End(Not run)
hsdsCon = H5S_source(URL_hsds()) # hsds server connection
hsdsCon
getReq(hsdsCon)
setPath(hsdsCon,"/home/stvjc/hdf5_mat.h5") -> hsds
fetchDatasets(hsds)     # grab the dataset id of interest
H5S_dataset2(hsds, "d-a9e4b71c-8ea2-11e8-9306-0242ac120022")
```

HSDSArray *A DelayedArray backend for accessing a remote HDF5 server.*

Description

A DelayedArray backend for accessing a remote HDF5 server.

Construct an object of type HSDSArray directly from the data members of its seed

Usage

```
HSDSArray(endpoint, svrtype, domain, dsetname)
```

Arguments

endpoint	URL of remote server
svrtype	type of server, must be either 'hsds' or 'h5serv'
domain	HDF5 domain of H5 file on server
dsetname	complete internal path to dataset in H5 file

Value

An initialized object of type HSDSArray

See Also

Other HSDSArray: HSDSMatrix, as

HSDSArraySeed *HSDSArraySeed for HSDSArray backend to DelayedArray*

Description

HSDSArraySeed for HSDSArray backend to DelayedArray

Construct an object of type HSDSArraySeed

Usage

```
HSDSArraySeed(endpoint, svrtype, domain, dsetname)
```

Arguments

endpoint	URL of remote server
svrtype	type of server, must be either 'hsds' or 'h5serv'
domain	HDF5 domain of H5 file on server
dsetname	complete internal path to dataset in H5 file

Value

An initialized object of type HSDSArraySeed

Slots

endpoint URL of remote server

svrtype type of server, must be either 'hsds' or 'h5serv'

domain HDF5 domain of H5 file on server

dsetname complete internal path to dataset in H5 file

dataset object of type HSDSDataset for access to the H5 dataset

HSDSDataset *Construct an object of type HSDSDataset A HSDSDataset is a representation of a dataset in a HDF5 file.*

Description

Construct an object of type HSDSDataset A HSDSDataset is a representation of a dataset in a HDF5 file.

Usage

```
HSDSDataset(file, path)
```

Arguments

file	An object of type HSDSFile which hosts the dataset
path	The complete intrafile path to the dataset

Value

An initialized object of type HSDSDataset

Examples

```
src <- HSDSSource('http://hsdshdflab.hdfgroup.org')
f <- HSDSFile(src, '/home/spollack/testzero.h5')
d <- HSDSDataset(f, '/grpA/grpAB/dsetX')
```

HSDSDataset-class *An S4 class to represent a dataset in a HDF5 file.*

Description

An S4 class to represent a dataset in a HDF5 file.

Slots

`file` An object of type HSDSFile; the file in which the dataset is resident.

`path` The dataset's path in the internal HDF5 hiearchy.

`uuid` The unique unit ID by which the dataset is accessed in the server database system.

`shape` The dimensions of the dataset

`type` The dataset's HDF5 datatype

HSDSFile *Construct an object of type HSDSFile*

Description

A HSDSFile is a representation of an HDF5 file the contents of which are accessible exposed by a HDF5 server.

Usage

```
HSDSFile(src, domain)
```

Arguments

`src`	an object of type HSDSSource, the server which exposes the file
`domain`	the domain string; the file's location on the server's file system.

Details

This function is deprecated and will be defunct in the next release.

Value

an initialized object of type HSDSFile

Examples

```
src <- HSDSSource('http://hsdshdflab.hdfgroup.org')
f10x <- HSDSFile(src, '/shared/bioconductor/tenx_full.h5')
```

`HSDSFile-class` *An S4 class to represent an HDF5 file accessible from a server.*

Description

An S4 class to represent an HDF5 file accessible from a server.

Slots

`HSDSSource` an object of type HSDSSource

`domain` the file's domain on the server; more or less, an alias for its location in the external server file system

`dsetdf` a data.frame that caches often-used information about the file

---

`hsdsInfo` *HSDS server get request accessor*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
hsdsInfo(object)
```

Arguments

`object`	H5S_source instance

Value

a data frame with response

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server connection
hsdsInfo(hsdsCon)
```

HSDSMatrix *DelayedMatrix subclass for a two-dimensional HSDSArray*

Description

DelayedMatrix subclass for a two-dimensional HSDSArray

See Also

Other HSDSArray: HSDSArray, as

HSDSSource *Construct an object of type HSDSSource.*

Description

A HSDSSource is a representation of a URL which provides access to a HDF5 server (either h5serv or hsds.)

Usage

```
HSDSSource(endpoint, type = "hsds")
```

Arguments

endpoint	URL for server
type	Type of server software at the source; must be

Details

This function is deprecated and will be defunct in the next release.

Value

An object of type HSDSSource

Examples

```
src.hsds <- HSDSSource('http://hsdshdflab.hdfgroup.org')
```

HSDSSource-class *An S4 class to represent a HDF5 server listening on a port.*

Description

This class is deprecated and will be defunct in the next release.

Slots

endpoint URL for server

type Type of server software at the source; must be either 'h5serv' or (default) 'hsds'

HSDS_Matrix *simplify construction of DelayedMatrix from url and path in HSDS*

Description

This class is deprecated and will be defunct in the next release.

Usage

```
HSDS_Matrix(url, path, title)
```

Arguments

url	character(1) URL for HSDS object store with port
path	character(1) path from root defining HDF Cloud resource
title	character(1) name of dataset to use

Value

instance of DelayedArray

Examples

```
HSDS_Matrix(URL_hsds(), "/shared/bioconductor/darmgcls.h5")
```

HSDS_Matrix_OLD *simplify construction of DelayedMatrix from url and path in HSDS*

Description

This class is deprecated and will be defunct in the next release.

Usage

```
HSDS_Matrix_OLD(url, path)
```

Arguments

url	character(1) URL for HSDS object store with port
path	character(1) path from root defining HDF Cloud resource

Value

instance of DelayedArray

Examples

```
HSDS_Matrix
```

internalDim *acquire internal HDF5 dimension information for matrix*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
internalDim(h5d)
```

Arguments

h5d	instance of H5S_dataset

Value

vector with dimensions of dataset

Examples

```
## Not run:
bigec2 = H5S_source(URL_h5serv())
tex <- bigec2[["tenx_100k_sorted"]]
internalDim(tex)

## End(Not run)
```

isplit *This function is deprecated and will be defunct in the next release.*

Description

isplit converts a numeric vector into a list of sequences for compact reexpression

Usage

```
isplit(x)

sproc(spl)
```

Arguments

x	a numeric vector (should be integers)
spl	output of isplit

Value

list of vectors of integers which can be expressed as initial/final/stride triplets

list of colon-delimited strings each with initial/final/stride triplet

Examples

```
inds = c(1:10, seq(25,50,2), seq(200,150,-2))
sproc(isplit(inds))
```

---

links *access for link metadata for HDF5 server groups*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
links(object, index, ...)
```

Arguments

object	H5S_source instance
index	numeric group index
...	not used

Value

an object of type H5S_linkset with the linkset of the group

Examples

```
## Not run:
bigec2 = H5S_source(URL_h5serv())
lks <- links(bigec2, 1)    # linkset for root group
urls <- targets(lks)       # URLs of datasets in linkset

## End(Not run)
```

---

listDatasets *Search inner file hierarchy for datasets*

Description

The datasets in an HDF5 file are organized internally by groups. This routine traverses the internal group hiearchy, locates all datasets and prints a list of them. Note that if the file's group hiearchy is complex, this could be time-consuming.

Usage

```
listDatasets(file)
```

Arguments

file	an object of type HSDSFile to be searched

Details

This function is deprecated and will be defunct in the next release.

Value

a list of inner-paths

Examples

```
src <- HSDSSource('http://hsdshdflab.hdfgroup.org')
f <- HSDSFile(src, '/home/spollack/testzero.h5')
listDatasets(f)
```

---

listDomains *List files and subdirectories of a domain*

Description

The user needs to give the domain to start in. The search will be non-recursive. I.e., output for domain '/home/jreadey/' will not return the files in '/home/jreadey/HDFLabTutorial/'

Usage

```
listDomains(object, rootdir)

## S4 method for signature 'HSDSSource,character'
listDomains(object, rootdir)

## S4 method for signature 'HSDSSource,missing'
listDomains(object)
```

Arguments

object	An object of type HSDSSource
rootdir	A slash-separated directory in the HSDSSource file system.

Details

This function is deprecated and will be defunct in the next release.

Value

a vector of domains in the rootdir

Examples

```
src.hsds <- HSDSSource('http://hsdshdflab.hdfgroup.org')
src.chan <- HSDSSource('http://h5s.channingremotedata.org:5000', 'h5serv')
listDomains(src.chan)
listDomains(src.hsds, '/home/jreadey')
```

`rhdf5client` *rhdf5client: A package for accessing HDFGroup HDF5 servers from R.*

Description

The rhdf5client package provides read-only access to HDF5 files maintained on a server. The HDFGroup provides two servers, an obsolescent one called 'h5serv' and the newer prototype called 'hsds'.

`rhdf5client-deprecated` *Deprecated functions in package 'rhdf5client'*

Description

These functions are provided for compatibility with older versions of 'rhdf5client' only, and will be defunct at the next release.

Details

The following functions are deprecated and will be made defunct in the next release:

- URL_h5serv
- URL_hsds
- dsmeta
- getReq
- groups
- setPath
- links
- transfermode
- dataset
- internalDim
- hsdsInfo
- domains
- getDatasetUUIDs
- getDatasetAttrs
- getDims
- getHRDF
- H5S_dataset2
- getDatasetSlice
- fetchDatasets
- isplit

- sproc
- listDomains
- listDatasets
- getData

The following classes are deprecated and will be made defunct in the next release:

- H5S_source
- H5S_dataset
- H5S_Array
- H5S_Matrix
- HSDSSource
- HSDSFile
- HSDSDataset

`setPath` *set path for hsds server resource*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
setPath(object, folderPath, ...)
```

Arguments

`object`	H5S_source instance
`folderPath`	character string with path to user's folder on hsds server
`...`	not used

Value

an updated object with folderPath set

Examples

```
hsdsCon = H5S_source(URL_hsds()) # hsds server connection
setPath(hsdsCon, "/home/stvjc/hdf5_mat.h5")-> hsds
```

targets *provide the full URLs for link members*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
targets(h5linkset, index)
```

Arguments

h5linkset	instance of H5S_linkset
index	numeric index into link vector - ignored

Value

a vector of dataset tags

Examples

```
## Not run:
bigec2 = H5S_source(URL_h5serv())
lks <- links(bigec2, 1)    # linkset for root group
urls <- targets(lks)       # URLs of datasets in linkset

## End(Not run)
```

transfermode<- *replace transfer mode*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
transfermode(object) <- value
```

Arguments

object	instance of H5S_linkset
value	either "JSON" (default) or "binary"

Value

updated object of type H5S_dataset

URL_h5serv *manage h5serv URL*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
URL_h5serv()
```

Value

URL of h5serv server

Examples

```
URL_h5serv()
```

URL_hsds *manage hsds URL*

Description

manage hsds URL

Usage

```
URL_hsds()
```

Value

URL of hsds server

Examples

```
URL_hsds()
```

`[,H5S_dataset,character,character,ANY-method`
extract elements from H5S_dataset

Description

extract elements from H5S_dataset

Usage

```
## S4 method for signature 'H5S_dataset,character,character,ANY'
x[i, j, ...,
  drop = FALSE]
```

Arguments

x	instance of H5S_dataset
i	character vector of row selections
j	character vector of column selections
...	not used
drop	logical(1) set TRUE to drop array character

`[,H5S_dataset,numeric,numeric,ANY-method`
extract elements from H5S_dataset

Description

This function is deprecated and will be defunct in the next release.

Usage

```
## S4 method for signature 'H5S_dataset,numeric,numeric,ANY'
x[i, j, ..., drop = FALSE]
```

Arguments

x	instance of H5S_dataset
i	select option for first matrix index in HDF5 server value API
j	select option for second matrix index in HDF5 server value API
...	unused
drop	logical defaults to FALSE

Value

matrix of data obtained

[,HSDSDataset,numeric,ANY,ANY-method
bracket method for 1d request from HSDSDataset

Description

bracket method for 1d request from HSDSDataset

Usage

```
## S4 method for signature 'HSDSDataset,numeric,ANY,ANY'
x[i, j, ..., drop = TRUE]
```

Arguments

x	object of type HSDSDataset
i	vector of indices (first dimension)
j	not used
...	not used
drop	logical(1) if TRUE return has no array character

Value

an array with the elements requested from the HSDSDataset

[,HSDSDataset,numeric,numeric,ANY-method
bracket method for 2d request from HSDSDataset

Description

bracket method for 2d request from HSDSDataset

Usage

```
## S4 method for signature 'HSDSDataset,numeric,numeric,ANY'
x[i, j, ..., drop = TRUE]
```

Arguments

x	object of type HSDSDataset
i	vector of indices (first dimension)
j	vector of indices (second dimension)
...	not used
drop	logical(1) if TRUE return has no array character

Value

an array with the elements requested from the HSDSDataset

[[*Subscript operator*

Description

This function is deprecated and will be defunct in the next release.

Usage

```
## S4 method for signature 'H5S_source,character'
x[[i, j]]
```

Arguments

x	instance of H5S_source
i	character string intended to identify dataset on server
j	not used

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