

Package: SeuratData (via r-universe)

August 10, 2024

Type Package

Title Install and Manage Seurat Datasets

Version 0.2.2.9001

Date 2023-03-21

Description Single cell RNA sequencing datasets can be large, consisting of matrices that contain expression data for several thousand features across several thousand cells. This package is designed to easily install, manage, and learn about various single-cell datasets, provided Seurat objects and distributed as independent packages.

URL <http://www.satijalab.org/seurat>,
<https://github.com/satijalab/seurat-data>

BugReports <https://github.com/satijalab/seurat-data/issues>

License GPL-3 | file LICENSE

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

Depends R (>= 3.5.0)

Imports cli, crayon, rappdirs, stats, utils, SeuratObject (>= 5.0.0)

Collate 'zzz.R' 'seurat_data.R'

Suggests Azimuth

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

RemoteUrl <https://github.com/satijalab/seurat-data>

RemoteRef HEAD

RemoteSha 4dc08e022f51c324bc7bf785b1b5771d2742701d

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AvailableData	<i>Get list of available datasets</i>
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Description

Get list of available datasets

Usage

```
AvailableData()
```

Value

A dataframe with available Seurat datasets. Rownames of the dataframe are the actual package names

Dataset Name of dataset, usable for other functions in SeuratData (eg. [InstallData](#))

Version Version of dataset, generally corresponds to version of Seurat dataset was built with

Installed Is the dataset installed?

InstalledVersion Version of dataset installed, NA if not installed

Other columns are extra metadata, and may change as new datasets are made available

See Also

[InstallData](#) [InstalledData](#) [RemoveData](#) [UpdateData](#)

Examples

```
AvailableData()
```

InstallData	<i>Install a dataset</i>
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Description

Install a dataset

Usage

```
InstallData(ds, force.reinstall = FALSE, ...)
```

Arguments

ds	List of datasets to install
force.reinstall	Force reinstall already installed packages
...	Extra parameters passed to install.packages

Value

Invisible NULL

See Also

[AvailableData](#) [InstalledData](#) [RemoveData](#) [UpdateData](#)

Examples

```
## Not run:  
InstallData('pbmc3k')  
  
## End(Not run)
```

InstalledData	<i>Get a list of installed datasets</i>
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Description

Get a list of installed datasets

Usage

```
InstalledData()
```

Value

A dataframe with installed Seurat datasets. Rownames of the dataframe are the actual package names

Dataset Name of dataset, usable for other functions in SeuratData (eg. [InstallData](#))

Version Version of dataset, generally corresponds to version of Seurat dataset was built with

Installed Is the dataset installed?

InstalledVersion Version of dataset installed

Other columns are extra metadata, and may change as new datasets are made available

See Also

[AvailableData](#) [InstallData](#) [RemoveData](#) [UpdateData](#)

Examples

```
InstalledData()
```

LoadData

Modularly load a dataset

Description

Modularly load a dataset

Usage

```
LoadData(ds, type = "default")
```

Arguments

ds	Optional name of dataset to load
type	How to load the Seurat object; choose from either 'default' for the default dataset or any dataset listed in the other.datasets section of the data manifest

Value

A Seurat object with the dataset asked for

See Also

[data](#)

LoadReference	<i>Load the reference RDS files</i>
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Description

Read in a reference [Seurat](#) object and annoy index. This function can read from a file path. In order to read properly, there must be the following files:

- “ref.Rds” for the downsampled reference Seurat object (for mapping)
- “idx.annoy” for the nearest-neighbor index object

Usage

```
LoadReference(path)
```

Arguments

path	Path to the two RDS files
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Value

A list with two entries:

map The downsampled reference [Seurat](#) object (for mapping)

plot The reference Seurat object (for plotting)

RemoveData	<i>Remove a dataset</i>
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Description

Remove a dataset

Usage

```
RemoveData(ds, lib)
```

Arguments

ds	List of datasets to remove
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lib	a character vector giving the library directories to remove the packages from. If missing, defaults to the first element in .libPaths() .
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See Also

[AvailableData](#) [InstallData](#) [InstalledData](#) [UpdateData](#)

Examples

```
## Not run:  
RemoveData('pbmc3k')  
  
## End(Not run)
```

UpdateData

Update datasets

Description

Update datasets

Usage

```
UpdateData(ask = TRUE, lib.loc = NULL)
```

Arguments

ask	logical indicating whether to ask the user to select packages before they are downloaded and installed, or the character string "graphics", which brings up a widget to allow the user to (de-)select from the list of packages which could be updated. (The latter value only works on systems with a GUI version of select.list , and is otherwise equivalent to ask = TRUE.)
lib.loc	character vector describing the location of R library trees to search through (and update packages therein), or NULL for all known trees (see .libPaths).

Value

Invisible NULL

See Also

[AvailableData](#) [InstallData](#) [InstalledData](#) [RemoveData](#)

Examples

```
## Not run:  
UpdateData(ask = FALSE)  
  
## End(Not run)
```

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