Package: SeuratData (via r-universe)

October 20, 2026

Version 0.2.2.9002

Title Install and Manage Seurat Datasets

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.

License GPL-3 | file LICENSE

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

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

Depends R (>= 3.5.0)

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

Suggests Azimuth

Encoding UTF-8

LazyData true

RoxygenNote 7.3.2

Collate 'zzz.R' 'seurat_data.R'

Config/pak/sysreqs cmake libglpk-dev make libicu-dev libpng-dev libuv1-dev libxml2-dev libssl-dev python3 zlib1g-dev

Repository https://almirall-rddatascience.r-universe.dev

Date/Publication 2025-03-04 22:02:14 UTC

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

RemoteRef HEAD

RemoteSha 3e51f44303069b64f5dc4d68e6a3d4a343f55c39

Contents

AvailableData 2
InstallData 3
InstalledData 3
LoadData 4
LoadReference 5
RemoveData 5
UpdateData 6

Index **7**

`AvailableData` *Get list of available datasets*

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 *Install a dataset*

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 *Get a list of installed datasets*

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 *Load the reference RDS files*

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	Pathto the two RDS files

Value

A list with two entries:

map The downsampled reference Seurat object (for mapping)

plot The reference Seurat object (for plotting)

RemoveData *Remove a dataset*

Description

Remove a dataset

Usage

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

Arguments

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

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`. `ask` does not control questions asked before installing packages from source via `type = "both"` (see option `"install.packages.compile.from.source"`).
`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)
```

Index

.libPaths, *5, 6*

AvailableData, 2, *3–6*

data, *4*

install.packages, *3*
InstallData, *2*, 3, *4–6*
InstalledData, *2*, 3, *3*, *5, 6*

LoadData, 4
LoadReference, 5

RemoveData, *2–4*, 5, *6*

select.list, *6*
Seurat, *5*

UpdateData, *2–5*, 6