

Package: MsExperimentStash (via r-universe)

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Title Serialize and restore MsExperiment objects in interoperable file formats

Version 0.97.1

Description The serialization mechanism of R allows to save and load R data objects in a binary format, that can however not be read by other programming languages or software. The MsExperimentStash package implements the serialization methods from the MsStash package for MsExperiment objects. Data can be stashed in a variety of file formats and types, including HDF5 and JSON-based formats defined by the Bioconductor **alabaster** package.

Depends R (>= 4.6.0), MsStash

Imports methods, alabaster.base, MsExperiment

Suggests BiocStyle, testthat, pkgload, callr, fs

Remotes RforMassSpectrometry/MsStash,
RforMassSpectrometry/SpectraStash

License GPL-3

Encoding UTF-8

BugReports <https://github.com/RforMassSpectrometry/MsExperimentStash/issues>

URL <https://github.com/RforMassSpectrometry/MsExperimentStash>

biocViews Infrastructure, MassSpectrometry, Metabolomics, DataImport, Proteomics

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Contents

MsExperimentFilesStash	2
Index	4

MsExperimentFilesStash
Stash for MsExperimentFiles

Description

The [MsExperiment::MsExperimentFiles](#) class stores files (or rather file names) that are part of a mass spectrometry experiment.

The supported stash formats for MsExperimentFiles objects are listed in the sections below.

Usage

```
## S4 method for signature 'MsExperimentFiles,PlainTextParam'
saveMsObject(object, param, ...)
```

```
## S4 method for signature 'MsExperimentFiles,PlainTextParam'
readMsObject(object, param, ...)
```

```
## S4 method for signature 'MsExperimentFiles'
saveObject(x, path, ...)
```

```
## S4 method for signature 'MsExperimentFiles,AlabasterParam'
saveMsObject(object, param, ...)
```

```
## S4 method for signature 'MsExperimentFiles,AlabasterParam'
readMsObject(object, param, ...)
```

Arguments

object	An MsExperimentFiles object.
param	An MsStash::AlabasterParam or MsStash::PlainTextParam .
...	Currently ignored.
x	An MsExperimentFiles object.
path	For saveObject(): character(1) with the path where the object should be stored into.

Value

readMsObject() returns a [MsExperiment::MsExperimentFiles](#) object.

Text-file format, PlainTextParam

The text-file format stash folder for MsExperimentFile objects contains a file *ms_experiment_files.txt* with two tabulator separated columns *name* and *files*. Each row (except the first) is one element of the MsExperimentFile, the first defining the object's names and the second its content, which represents a characted vector with the file name(s), separated by a " | " (if more than one).

alabaster-based format, AlabasterParam

The MsExperimentFiles stash folder contains the alabaster-specific *OBJECT* file and a sub-folder *x* with the MsExperimentFiles content serialized by *alabaster.base*.

Author(s)

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Examples

```
library(MsExperiment)

fls <- MsExperimentFiles(list(input = c("file.mzML", "file2.mgf")))

## Define the path to the stash
d <- file.path(tempdir(), "ms_file_stash")

## Stash the object in alabaster format
saveMsObject(flfs, AlabasterParam(d))

## The content of the stash: subfolder x contains the *character list*
## saved through the *alabaster.base* package.
library(fs)
dir_tree(d)

## Restore the object from stash
res <- readMsObject(MsExperimentFiles(), AlabasterParam(d))
res

## In addition, it is possible to read the object also with the
## *alabaster.base* functionality
library(alabaster.base)
res <- readObject(d)
```

Index

MsExperiment::MsExperimentFiles, [2](#)

MsExperimentFilesStash, [2](#)

MsStash::AlabasterParam, [2](#)

MsStash::PlainTextParam, [2](#)

readMsObject, MsExperimentFiles, AlabasterParam-method
(MsExperimentFilesStash), [2](#)

readMsObject, MsExperimentFiles, PlainTextParam-method
(MsExperimentFilesStash), [2](#)

saveMsObject, MsExperimentFiles, AlabasterParam-method
(MsExperimentFilesStash), [2](#)

saveMsObject, MsExperimentFiles, PlainTextParam-method
(MsExperimentFilesStash), [2](#)

saveObject, MsExperimentFiles-method
(MsExperimentFilesStash), [2](#)