

Package ‘Raman2imzML’

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Type Package

Title Raman imaging Tools

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Description Reads .txt files from Renishaw and WiTec Raman instruments and converts them into .imzML files. The imzML parser source code comes from the open-source package rMSI.

License GPL3

LazyData TRUE

Imports digest (>= 0.6.9),
Rcpp (>= 0.12.2)

LinkingTo Rcpp

RoxygenNote 7.0.2

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clean_2_offsetMatrix	<i>clean_2_offsetMatrix</i>
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Description

clean_2_offsetMatrix

Usage

```
clean_2_offsetMatrix(clean_data)
```

Arguments

clean_data path to the .txt file.

Value

TRUE if everything is alright.

FIVE_convert	<i>FIVE_convert</i>
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Description

Converts a txt files exported using WiRe 5.2 from Renishaw raman instruments and transforms it into an imzML file. The name of the imzML file is going to be the same as the txt file. Only WiRe 5.2 txt files have been tested.

Usage

```
FIVE_convert(
  info_txt_path,
  table_txt_path,
  spectrum_txt_path,
  imzML_path = NULL,
  file_name = NULL
)
```

Arguments

info_txt_path path to the txt file containing the information of the acquisition.

table_txt_path path to the txt file containing all spectra as a table.

spectrum_txt_path

 path to the txt file containing one independent spectrum.

imzML_path path to the folder where the imzML file is going to be stored. By default the same as the table text file.

file_name name of the imzML file. By default the same as the table text file.

Value

TRUE if everything is alright.

five_raw_2_clean	<i>five_raw_2_clean</i>
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Description

five_raw_2_clean

Usage

```
five_raw_2_clean(raw_data, info, spect)
```

Arguments

raw_five data frame containing the raw data from the txt file.

Value

rearranged data to fit the processing pipeline.

uuid_timebased	<i>uuid.</i>
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Description

Generates a timecode-based 16-bytes UUID. The generated bytes are generated using the following pattern: bytes 0 and 1: Year byte 2: Month byte 3: Day byte 4: Hour byte 5: Minute byte 6: Second bytes 7 to 15: random.

Usage

```
uuid_timebased()
```

Value

the generated UUID encoded in a text string.

WiRe_convert	<i>WiRe_convert</i>
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Description

Converts a txt files exported using WiRe 5.2 from Renishaw raman instruments and transforms it into an imzML file. The name of the imzML file is going to be the same as the txt file. Only WiRe 5.2 txt files have been tested.

Usage

```
WiRe_convert(txt_path, imzML_path = NULL, file_name = NULL)
```

Arguments

txt_path	path to the txt file.
imzML_path	path to the folder where the imzML file is going to be stored. By default the same as the text file.
file_name	name of the imzML file. By default the same as txt file.

Value

TRUE if everything is alright.

wire_raw_2_clean	<i>WiRe_raw_2_clean</i>
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Description

WiRe_raw_2_clean

Usage

```
wire_raw_2_clean(raw_data)
```

Arguments

raw_data	data frame containing the raw data from the txt file.
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Value

rearranged data to fit the processing pipeline.

write_ibd	<i>write_ibd</i>
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Description

write_ibd

Usage

```
write_ibd(imzML_path, file_name, clean_data, uuid)
```

Arguments

imzML_path	path to the folder where the imzML file is going to be stored..
file_name	name of the txt file or a new name.(currently the converter just copies the txt file name)
clean_data	rearranged data structure.
uuid	uuid. This code must be shared between the imzML file and the ibd file.

Value

List containing the sha and the md5 of the ibd file.

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