Package 'xlum'

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Type Package

Title Read, Write, and Convert xlum Data

Version 0.1.0.9000-20

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Description Support for the xlum-file format for exchange and long-term
preservation of luminescence data.

License GPL-3

Depends R (>= 4.1),
utils

Imports methods,
xml2 (>= 1.3.3)

Suggests spelling (>= 2.2),
testthat (>= 3.1.3)

Encoding UTF-8

Language en-GB

LazyData true

RoxygenNote 7.1.2

Collate 'read_xlum.R'
'utils.R'
'validate_xlum.R'
'xlum-package.R'

R topics documented:

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xlum-package *Read, Write, and Convert xlum Data*

Description

Support for the xlum-file format for exchange and long-term preservation of luminescence data.

Details

Support contact

- https://github.com/R-Lum/xlum/discussions

Bug reporting

- https://github.com/R-Lum/xlum/issues

Project source code repository

- https://github.com/R-Lum/xlum

Package maintainer

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read_xlum *Import xlum files*

Description

Imports xlum files using xml2::read_xml. Comes with a few convenience features, such as the transformation of string lists to numeric vectors where meaningful.

Usage

```
read_xlum(file, verify = TRUE, output = "xlum_list")
```

Arguments

file	character (**required**): path to file
verify	logical (*with default*): enable/disable format validation
output	character (*with default*): output object of the import, supported are "xml_document", "list", "xlum_list" (the default)

Details

Supported output options

`"xlum_list"` (default): imports XML-data and coerces them to list. Numeric values for level <curve> are transposed into [numeric](#) vectors for better handling

`"list"`: imports XML-data and coerces it to a [list](#), no further treatment of data

`"xml_document"`: unprocessed output from [xml2::read_xml](#)

Value

The output depends on the setting selected in `output`. It will be either an [xml2::xml_document](#), [list](#), or a [list](#) of class `xlum_list`.

How to cite

Kreutzer, S., 2022. read_xlum(): Import xlum files. In: Kreutzer, S., 2022. xlum: Read, Write, and Convert xlum Data. R package version 0.1.0.9000-20.

Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University

Examples

```
file <- system.file("extdata/xlum_example.xlum", package="xlum")
read_xlum(file)
```

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validate_xlum	*Validate xlum format against an XSD reference schema*

Description

A a convenience wrapper around [xml2::xml_validate](#) against the reference format description shipped with [xlum-package](#)

Usage

```
validate_xlum(file)
```

Arguments

file   [xml2::xml_document](#) (**required**): object to test

Value

Results of the validation [logical](#) with attributes

How to cite

Kreutzer, S., 2022. validate_xlum(): Validate xlum format against an XSD reference schema. In: Kreutzer, S., 2022. xlum: Read, Write, and Convert xlum Data. R package version 0.1.0.9000-20.

Author(s)

Sebastian Kreutzer, Geography & Earth Sciences, Aberystwyth University

Examples

```
file <- system.file("extdata/xlum_prototype.xlum", package = "xlum")
validate_xlum(file)
```

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