

Package ‘StatDataML’

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Title Read and Write StatDataML Files

Description

Support for reading and writing files in StatDataML---an XML-based data exchange format.

Depends R (>= 2.0.0), XML, utils

License GPL-2

NeedsCompilation no

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| readSDML | <i>Read StatDataML Files</i> |
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Description

Read a StatDataML file and create a corresponding R object.

Usage

```
readSDML(file="", text=NULL, validate=FALSE, read.description=FALSE, ...)
```

Arguments

| | |
|------------------|--|
| file | the StatDataML file to be read. |
| text | a string containing StatDataML code (if no file is specified). |
| validate | logical, should file be validated using the DTD specified in file? |
| read.description | logical, should the description tag in file be read? |
| ... | arguments passed to xmlTreeParse |

Details

For details on the StatDataML format see the proposal.

Value

a data object with an additional `SDMLdescription` attribute

Author(s)

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See Also

see also [writeSDML](#)

Examples

```
library(XML)

TEST <-
  function(x) identical(readSDML(text = capture.output(writeSDML(x))), x)

# write/read vector with names
a <- 1:15
names(a) <- paste("n", 1:15, sep="")
stopifnot(TEST(a))

# write/read a matrix
A <- matrix(1:16, ncol=4)
rownames(A) <- paste("row", 1:4, sep="")
colnames(A) <- paste("col", 1:4, sep="")
stopifnot(TEST(A))

# write/read a data.frame
data(iris)
stopifnot(TEST(iris))

# write/read a ts object
data(airmiles)
stopifnot(TEST(airmiles))
```

```
# write/read the islands data
data(islands)
stopifnot(TEST(islands))
```

writeSDML

Write Data in StatDataML Format

Description

Write data in StatDataML format, either in a file or to standard output

Usage

```
writeSDML(x, file = "", textdata = NULL, dtd = NULL, sep = " &#x000A;&#x000D;",
na.string = "NA", null.string = "NULL", posinf.string = "+Inf",
neginf.string = "-Inf", nan.string = "NaN", true = "1", false = "0",
title = deparse(substitute(x)), source = "R", version = " ",
date = NULL, comment = " ", properties = NULL)
```

Arguments

| | |
|---------------|--|
| x | a data object. |
| file | the name of the file to write to. |
| textdata | save array elements as textdata blocks instead of data? Numeric arrays are by default (textdata=NULL) saved in textdata blocks, character arrays in data blocks. |
| dtd | location of the StatDataML DTD. |
| sep | field separator for textdata blocks. |
| na.string | the string which should be interpreted as NA element. |
| null.string | the string which should be interpreted as NULL string. |
| posinf.string | the string which should be interpreted as +Inf. |
| neginf.string | the string which should be interpreted as -Inf. |
| nan.string | the string which should be interpreted as NaN. |
| true, false | the strings which should be interpreted as TRUE/FALSE. |
| title | the title of the data being saved (string). |
| source | the source of the data being saved (string). |
| version | the version of the data being saved (string). |
| comment | a free form commentary for the data being saved (string). |
| date | a free form date element, date() by default. |
| properties | an arbitrary list or array. |

Details

info attributes of arrays are used for the info attributes of the e / ce / na tags in StatDataML. For further details on the StatDataML format see the proposal.

Author(s)

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See Also

[readSDML](#)

Examples

```
A <- matrix(1:16, ncol=4)
rownames(A) <- paste("row", 1:4, sep="")
colnames(A) <- paste("col", 1:4, sep="")

# export to temporary file
tmp_file1 = tempfile()
writeSDML(A, tmp_file1)

I <- letters[1:16]
attr(A, "info") <- I

# export to temporary file
tmp_file2 = tempfile()
writeSDML(A, tmp_file2, textdata = FALSE)

# cleanup
unlink(tmp_file1)
unlink(tmp_file2)
```

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