

Package ‘StatDataML’

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Title implementation of the StatDataML proposal

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Description read and write StatDataML files

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Depends R (>= 2.0.0), XML, utils

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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

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

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)

# write/read vector with names
a <- 1:15
names(a) <- paste("n", 1:15, sep="")
writeSDML(a, "testvec.xml")
b <- readSDML("testvec.xml")
cat(" a is equal b :", all.equal(a,b), "\n")

# write/read a matrix
A <- matrix(1:16, ncol=4)
rownames(A) <- paste("row", 1:4, sep="")
colnames(A) <- paste("col", 1:4, sep="")
writeSDML(A, "testmat.sdml")
B <- readSDML("testmat.sdml")
cat(" A is equal B :", all.equal(A,B), "\n")

# write/read a data.frame
data(iris)
writeSDML(iris, "iris.sdml")
irisSDML <- readSDML("iris.sdml")
cat(" iris is equal irisSDML: ", all.equal(iris,irisSDML), "\n")

# write/read a ts object
```

```

data(airmiles)
writeSDML(airmiles, "air.sdml")
airSDML <- readSDML("air.sdml")
cat(" airmiles is equal airSDML: ", all.equal(airmiles,airSDML), "\n")

# write/read the islands data
data(islands)
writeSDML(islands, "islands.sdml")
islandsSDML <- readSDML("islands.sdml")
cat(" islands is equal islandsSDML: ", all.equal(islands,islandsSDML), "\n")

```

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

<code>x</code>	a data object.
<code>file</code>	the name of the file to write to.
<code>textdata</code>	save array elements as <code>textdata</code> blocks instead of <code>data</code> ? Numeric arrays are by default (<code>textdata=NULL</code>) saved in <code>textdata</code> blocks, character arrays in <code>data</code> blocks.
<code>dtd</code>	location of the StatDataML DTD.
<code>sep</code>	field separator for <code>textdata</code> blocks.
<code>na.string</code>	the string which should be interpreted as NA element.
<code>null.string</code>	the string which should be interpreted as NULL string.
<code>posinf.string</code>	the string which should be interpreted as +Inf.
<code>neginf.string</code>	the string which should be interpreted as -Inf.
<code>nan.string</code>	the string which should be interpreted as NaN.
<code>true, false</code>	the strings which should be interpreted as TRUE/FALSE.
<code>title</code>	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.

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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="")
writeSDML(A, "testmat.sdml")

I <- letters[1:16]
attr(A, "info") <- I
writeSDML(A, "testmat2.sdml", textdata = FALSE)
```

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