Package 'Nozzle.R1'

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Type Package

Title Nozzle Reports

Version 1.0-0

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Description The Nozzle package provides an API to generate HTML reports with
dynamic user interface elements based on JavaScript and CSS (Cascading
Style Sheets). Nozzle was designed to facilitate summarization and rapid
browsing of complex results in data analysis pipelines where multiple
analyses are performed frequently on big data sets. The package can be
applied to any project where user-friendly reports need to be created.

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LazyLoad yes

Collate 'nozzle.R'

R topics documented:

Nozzle.R1-package *Nozzle: a Report Generation Toolkit for Data Analysis Pipelines*

Description

Provides a high-level API to generate HTML reports with dynamic user interface elements.

Details

Package:	Nozzle.R1
Type:	Package
Version:	1.0-0
Date:	2013-01-08
License:	LGPL (>= 2)
LazyLoad:	yes

Nozzle was designed to facilitate summarization and rapid browsing of complex results in data analysis pipelines where multiple analyses are performed frequently on big data sets.

Note

The "R1" in the "Nozzle.R1" package name stands for "revision 1" of the Nozzle R API. All versions of the Nozzle.R1 package will be backwards-compatible and able to render reports generated with earlier versions of the package. When backwards-compatibility of the API can no longer maintained the package name will change to "Nozzle.R2".

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

References

<http://www.github.com/parklab/Nozzle>, <http://gdac.broadinstitute.org/nozzle>

---

addTo *Add child elements to a parent element.*

Description

Add child elements to a parent element.

Usage

```
addTo(parent, ..., row = NA, column = NA)
```

Arguments

`parent`	Parent element.
`...`	One or more child elements.
`row`	If parent element is a table row and column indices must be provided to add supplementary results to cell in the table.
`column`	If parent element is a table row and column indices must be provided to add supplementary results to cell in the table.

Value

Updated parent element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

`addToInput`	*Add elements to the "Input" subsection in the "Methods & Data" section of a standard report.*

Description

Add elements to the "Input" subsection in the "Methods & Data" section of a standard report.

Usage

```
addToInput(report, ...)
```

Arguments

`report`	Report element.
`...`	Elements that will be added to the input section. Often these are paragraph elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToIntroduction   *Add elements to the "Introduction" subsection in the "Overview" section of a standard report.*

Description

Add elements to the "Introduction" subsection in the "Overview" section of a standard report.

Usage

```
addToIntroduction(report, ...)
```

Arguments

report   Report element.

...   Elements that will be added to the introduction section. Often these are paragraph elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToMeta   *Add elements to the "Meta" section of a standard report.*

Description

Add elements to the "Meta" section of a standard report.

Usage

```
addToMeta(report, ...)
```

Arguments

report   Report element.

...   Elements that will be added to the references section. These may be any elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToMethods	*Add elements to the "Methds & Data" section of a standard report.*

Description

Add elements to the "Methds & Data" section of a standard report.

Usage

```
addToMethods(report, ...)
```

Arguments

report	Report element.
...	Elements that will be added to the methods section. Often these are subsection elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToOverview	*Add elements to the "Overview" section of a standard report.*

Description

Add elements to the "Overview" section of a standard report.

Usage

```
addToOverview(report, ...)
```

Arguments

report	Report element.
...	Elements that will be added to the overview section. Often these are subsection elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToReferences   *Add elements to the "References" subsection in the "Methods & Data"*
                               section of a standard report.

Description

Add elements to the "References" subsection in the "Methods & Data" section of a standard report.

Usage

```
addToReferences(report, ...)
```

Arguments

report   Report element.

...   Elements that will be added to the references section. These should be citation
                elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToResults   *Add elements to the "Results" section of a standard report.*

Description

Add elements to the "Results" section of a standard report.

Usage

```
addToResults(report, ...)
```

Arguments

report   Report element.

...   Elements that will be added to the results section. Often these are subsection
                elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

addToSummary	*Add elements to the "Summary" subsection in the "Overview" section of a standard report.*

Description

Add elements to the "Summary" subsection in the "Overview" section of a standard report.

Usage

```
addToSummary(report, ...)
```

Arguments

report	Report element.
...	Elements that will be added to the overview section. Often these are paragraph elements.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asCode	*Format text as code.*

Description

Format text as code.

Usage

```
asCode(...)
```

Arguments

...	One or more strings that will be concatenated.

Value

Text formatted as a code.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asEmph *Format text with emphasis (usually resulting in text set in italics).*

Description

Format text with emphasis (usually resulting in text set in italics).

Usage

```
asEmph(...)
```

Arguments

... One or more strings that will be concatenated.

Value

Text with emphasis.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asFilename *Format text as filename.*

Description

Format text as filename.

Usage

```
asFilename(...)
```

Arguments

... One or more strings that will be concatenated.

Value

Text formatted as a filename.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asLink *Format text as a hyperlink.*

Description

Format text as a hyperlink.

Usage

```
asLink(url, ...)
```

Arguments

url   URL to be for the link.

...   One or more strings that will be concatenated to form the text of the link.

Value

A hyperlink.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asParameter *Format text as parameter.*

Description

Format text as parameter.

Usage

```
asParameter(...)
```

Arguments

...   One or more strings that will be concatenated.

Value

Text formatted as a parameter.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asReference   *Reference a citation, figure or table element.*

Description

Reference a citation, figure or table element.

Usage

```
asReference(element)
```

Arguments

element   Citation, figure or table element.

Value

A reference string for the referenced element that will be resolved when the report is written to file and rendered to HTML.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asStrong   *Format text with strong emphasis (usually resulting in text set in bold).*

Description

Format text with strong emphasis (usually resulting in text set in bold).

Usage

```
asStrong(...)
```

Arguments

...   One or more strings that will be concatenated.

Value

Text with strong emphasis.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asSummary | *Include a result in text. This is a legacy method and provided only for backwards compatibility.*

Description

Include a result in text. This is a legacy method and provided only for backwards compatibility.

Usage

```
asSummary(result)
```

Arguments

result | The result element.

Value

The result element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

asValue | *Format text as value.*

Description

Format text as value.

Usage

```
asValue(...)
```

Arguments

... | One or more strings that will be concatenated.

Value

Text formatted as a value.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

DEFAULT.REPORT.FILENAME
                    Default filename for reports.

Description

Default filename for reports.

Usage

    DEFAULT.REPORT.FILENAME

Format

chr "nozzle"

DEFAULT.SIGNIFICANT.ENTITY
                    Name of entities that are labeled as signficiant.

Description

Name of entities that are labeled as signficiant.

Usage

    DEFAULT.SIGNIFICANT.ENTITY

Format

chr "statistically significant findings"

---

getContactInformationEmail
                    Get contact email address for report.

Description

Get contact email address for report.

Usage

    getContactInformationEmail(report)

Arguments

report   Report element.

Value

Contact email address.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getContactInformationLabel
Get label for contact button for report.

Description

Get label for contact button for report.

Usage

        getContactInformationLabel(report)

Arguments

report   Report element.

Value

Contact email button label.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getContactInformationMessage
Get contact email default message for report.

Description

Get contact email default message for report.

Usage

        getContactInformationMessage(report)

Arguments

report   Report element.

Value

Contact email default message.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getContactInformationSubject

Get contact email subject line for report.

Description

Get contact email subject line for report.

Usage

    getContactInformationSubject(report)

Arguments

report   Report element.

Value

Contact email subject line.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getCopyrightOwner   *Get name of the copyright owner for* report.

Description

Get name of the copyright owner for report.

Usage

    getCopyrightOwner(report)

Arguments

report   Report element.

Value

Name of the copyright owner.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

getCopyrightStatement	*Get copyright statement for* report. *This text is linked to the copyright URL.*

Description

Get copyright statement for report. This text is linked to the copyright URL.

Usage

```
getCopyrightStatement(report)
```

Arguments

report   Report element.

Value

Text of the c opyright statement.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

getCopyrightUrl	*Get copyright URL for* report, *which is linked to the copyright statement.*

Description

Get copyright URL for report, which is linked to the copyright statement.

Usage

```
getCopyrightUrl(report)
```

Arguments

report   Report element.

Value

Copyright URL.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getCopyrightYear *Get copyright year* report.

Description

Get copyright year report.

Usage

```
getCopyrightYear(report)
```

Arguments

report   Report element.

Value

Copyright year.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getCreatorDate *Get date when* report *was created.*

Description

Get date when report was created.

Usage

```
getCreatorDate(report)
```

Arguments

report   Report element.

Value

Date when report was created or NA.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getCreatorName	*Get name and version of the Nozzle package that was used to create* `report`.

Description

Get name and version of the Nozzle package that was used to create `report`.

Usage

```
getCreatorName(report)
```

Arguments

report   Report element.

Value

Name and version of the Nozzle package that created `report` or NA.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getCustomPrintCss	*Get the path or URL of the CSS file to be used to overwrite the default print (not: screen) style sheet.*

Description

Get the path or URL of the CSS file to be used to overwrite the default print (not: screen) style sheet.

Usage

```
getCustomPrintCss(report)
```

Arguments

report   Report element.

Value

Path or URL of CSS file. Can be relative or absolute.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getCustomScreenCss	*Get the path or URL of the CSS file to be used to overwrite the default screen (not: print) style sheet.*

Description

Get the path or URL of the CSS file to be used to overwrite the default screen (not: print) style sheet.

Usage

```
getCustomScreenCss(report)
```

Arguments

report   Report element.

Value

Path or URL of CSS file. Can be relative or absolute.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getExportedElement	*Get an exported element from a report. This can be used to generate aggregate reports. This is an experimental feature of Nozzle and may not lead to the expected results.*

Description

Get an exported element from a report. This can be used to generate aggregate reports. This is an experimental feature of Nozzle and may not lead to the expected results.

Usage

```
getExportedElement(report, exportId)
```

Arguments

report   The source report.

exportId   The ID of the exported element. getExportedElementIds returns a list of exported element IDs.

Value

The exported report element or NULL if the ID does not exist in report.

Note

Elements containing references should not be exported since references cannot be resolved in the target report. Relative paths in exported elements may have to be adjusted manually if the target report will be located in a different directory.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getExportedElementIds	*Get the IDs of exported elements from* report. *This is an experimental feature of Nozzle and may not lead to the expected results.*

Description

Get the IDs of exported elements from report. This is an experimental feature of Nozzle and may not lead to the expected results.

Usage

```
getExportedElementIds(report)
```

Arguments

report   The source report.

Value

The IDs of exported report elements or NULL.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getFigureFile	*Get path or URL of image file associated with a figure element.*

Description

Get path or URL of image file associated with a figure element.

Usage

```
getFigureFile(element)
```

Arguments

element   Figure element.

Value

Path or URL of the image file or NA if element is not a figure.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getFigureFileHighRes   *Get path or URL of high-resolution of vector-based image file associated with a figure element.*

Description

Get path or URL of high-resolution of vector-based image file associated with a figure element.

Usage

```
getFigureFileHighRes(element)
```

Arguments

element   Figure element.

Value

Path or URL of the image file or NA if element is not a figure.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getGoogleAnalyticsId   *Get Google Analytics tracking ID for* report.

Description

Get Google Analytics tracking ID for report.

Usage

```
getGoogleAnalyticsId(report)
```

Arguments

report   Report element.

Value

Google Analytics Tracking ID or NA if not set.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getLogo *Get logo file for one of six positions (three at the top, three at the bottom) in* report.

Description

Get logo file for one of six positions (three at the top, three at the bottom) in report.

Usage

```
getLogo(report, position)
```

Arguments

report   Report element.

position   One of LOGO.TOP.LEFT, LOGO.TOP.CENTER, LOGO.TOP.RIGHT, LOGO.BOTTOM.LEFT, LOGO.BOTTOM.CENTER, LOGO.BOTTOM.RIGHT.

Value

Path or URL to the logo file at position.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getMaintainerAffiliation
Get affiliation of maintainer of report.

Description

Get affiliation of maintainer of report.

Usage

```
getMaintainerAffiliation(report)
```

Arguments

report   Report element.

Value

Affiliation of the maintainer.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

getMaintainerEmail	*Get email address of maintainer of* report.

Description

Get email address of maintainer of report.

Usage

```
getMaintainerEmail(report)
```

Arguments

report   Report element.

Value

Email address of the maintainer.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

getMaintainerName	*Get name of maintainer of* report.

Description

Get name of maintainer of report.

Usage

```
getMaintainerName(report)
```

Arguments

report   Report element.

Value

Name of the maintainer.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getRendererDate   *Get date when* report *was rendered.*

Description

Get date when report was rendered.

Usage

```
getRendererDate(report)
```

Arguments

report   Report element.

Value

Date when report was rendered or NA.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getRendererName   *Get name and version of the Nozzle package that was used to render* report.

Description

Get name and version of the Nozzle package that was used to render report.

Usage

```
getRendererName(report)
```

Arguments

report   Report element.

Value

Name and version of the Nozzle package that rendered report or NA.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getReportId　　　　　　　　*Get the ID (a UUID) of* report.

Description

Get the ID (a UUID) of report.

Usage

```
getReportId(report)
```

Arguments

report　　　　　　Report element.

Value

ID of report or NA.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getReportTitle　　　　　　*Get the title of* report.

Description

Get the title of report.

Usage

```
getReportTitle(report)
```

Arguments

report　　　　　　Report element.

Value

Title of report

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getSignificantEntity | *Get name of entities that are called out as significant, e.g. "gene". This is currently not being used and might become obsolete in future versions of Nozzle.*

Description

Get name of entities that are called out as significant, e.g. "gene". This is currently not being used and might become obsolete in future versions of Nozzle.

Usage

```
getSignificantEntity(report)
```

Arguments

report   Report element.

Value

Name of entities called out as significant.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getSignificantResultsCount
                    Get the total number of significant results in report.

Description

Get the total number of significant results in report.

Usage

```
getSignificantResultsCount(report)
```

Arguments

report   The report.

Value

Number of signficiant results.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getSoftwareName   *Get the name of the software that used Nozzle to generate* report.

Description

Get the name of the software that used Nozzle to generate report.

Usage

```
getSoftwareName(report)
```

Arguments

report   Report element.

Value

Name of the software that used Nozzle to generate report.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

getSoftwareVersion   *Get the version of the software that used Nozzle to generate* report.

Description

Get the version of the software that used Nozzle to generate report.

Usage

```
getSoftwareVersion(report)
```

Arguments

report   Report element.

Value

Version of the software that used Nozzle to generate report.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

| getSummary | *Get the first element of the "Summary" subsection in the "Overview" section in a standard report.* |

Description

Get the first element of the "Summary" subsection in the "Overview" section in a standard report.

Usage

```
getSummary(report)
```

Arguments

report   The report.

Value

A report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

| getTableFile | *Get path or URL of file associatd with table element.* |

Description

Get path or URL of file associatd with table element.

Usage

```
getTableFile(element)
```

Arguments

element   Table element.

Value

Path or URL.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

HTML.FRAGMENT   *Output type.*

Description

Output type.

Usage

    HTML.FRAGMENT

Format

chr "html_fragment"

HTML.REPORT   *Output type.*

Description

Output type.

Usage

    HTML.REPORT

Format

chr "html_standalone"

IMAGE.TYPE.PDF   *Image type.*

Description

Image type.

Usage

    IMAGE.TYPE.PDF

Format

num 2

IMAGE.TYPE.RASTER *Image type.*

Description

Image type.

Usage

```
IMAGE.TYPE.RASTER
```

Format

num 0

IMAGE.TYPE.SVG *Image type.*

Description

Image type.

Usage

```
IMAGE.TYPE.SVG
```

Format

num 1

isFigure *Test if* element *is a figure element.*

Description

Test if element is a figure element.

Usage

```
isFigure(element)
```

Arguments

element   Element to test.

Value

TRUE if the element is a figure, FALSE otherwise.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

isTable	*Test if* element *is a table element.*

Description

Test if element is a table element.

Usage

```
isTable(element)
```

Arguments

element   Element to test.

Value

TRUE if the element is a table, FALSE otherwise.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

LOGO.BOTTOM.CENTER	*Logo position.*

Description

Logo position.

Usage

```
LOGO.BOTTOM.CENTER
```

Format

num 16

LOGO.BOTTOM.LEFT	*Logo position.*

Description

Logo position.

Usage

```
LOGO.BOTTOM.LEFT
```

Format

num 8

LOGO.BOTTOM.RIGHT *Logo position.*

Description

Logo position.

Usage

```
LOGO.BOTTOM.RIGHT
```

Format

num 32

LOGO.TOP.CENTER *Logo position.*

Description

Logo position.

Usage

```
LOGO.TOP.CENTER
```

Format

num 2

LOGO.TOP.LEFT *Logo position.*

Description

Logo position.

Usage

```
LOGO.TOP.LEFT
```

Format

num 1

`LOGO.TOP.RIGHT`   *Logo position.*

Description

Logo position.

Usage

```
LOGO.TOP.RIGHT
```

Format

num 4

`newCitation`   *Create a citation element.*

Description

Create a citation element.

Usage

```
newCitation(authors = "", title, publication = "",
  issue = "", number = "", pages = "", year = "",
  url = "")
```

Arguments

authors	Names of authors.
title	Title of the document.
publication	Name of the publication where the document appeared.
issue	Issue of the publication.
number	Number of the publication.
pages	Pages of the document in the publication.
year	Year when the document was published.
url	URL of the document.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newCustomReport   *Create a new custom report without pre-defined sections.*

Description

Create a new custom report without pre-defined sections.

Usage

```
newCustomReport(..., version = 0)
```

Arguments

`...`	One or more strings that will be concatenated into the report title.
`version`	Version number. Not in use.

Value

A new report element.

Author(s)

Nils Gehlenborg (nils@hms.harvard.edu)

---

newFigure   *Create a new list element.*

Description

Create a new list element.

Usage

```
newFigure(file, ..., fileHighRes = NA,
    type = IMAGE.TYPE.RASTER, exportId = NULL,
    protection = PROTECTION.PUBLIC)
```

Arguments

`file`	Path or URL to the image file. Paths can be absolute or relative.
`...`	Strings that will be contactenated to form the figure caption.
`fileHighRes`	Path or URL to a high-resolution or vector-based version of the image file. Paths can be absolute or relative.
`type`	Currenlty only IMAGE.TYPE.RASTER is allowed.
`exportId`	Unique string to identify this element. Used to retrieve the element using `getExportedElement`.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newJournalCitation	*Create a citation element that represents a document published in a journal. This is a convenience wrapper for* newCitation.

Description

Create a citation element that represents a document published in a journal. This is a convenience wrapper for newCitation.

Usage

```
newJournalCitation(authors, title, publication, issue,
  number, pages, year, url = "")
```

Arguments

authors	Names of authors.
title	Title of the document.
publication	Name of the publication where the document appeared.
issue	Issue of the publication.
number	Number of the publication.
pages	Pages of the document in the publication.
year	Year when the document was published.
url	URL of the document.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newList *Create a new list element.*

Description

Create a new list element.

Usage

```
newList(..., isNumbered = FALSE, exportId = NULL,
  protection = PROTECTION.PUBLIC)
```

Arguments

`...`	Elements of type paragraph, list or result that will form the items in the list.
`isNumbered`	If set to FALSE, the list will be unordered with bullet points. If set to TRUE, the list will be numbered with arabic numerals.
`exportId`	Unique string to identify this element. Used to retrieve the element using `getExportedElement`.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP or PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg `<nils@hms.harvard.edu>`

---

newParagraph *Create a new paragraph element.*

Description

Create a new paragraph element.

Usage

```
newParagraph(..., exportId = NULL,
  protection = PROTECTION.PUBLIC)
```

Arguments

`...`	Strings that will be contactenated to form the text of the paragraph.
`exportId`	Unique string to identify this element. Used to retrieve the element using `getExportedElement`.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newParameterList   *Create a new parameter list element. A parameter list is an unnum-*
                              bered list of the form param_1 = value_1, ..., param_n = value_n
                              where param_i is formated as a parameter and value_i is formatted as
                              a value.

Description

Create a new parameter list element. A parameter list is an unnumbered list of the form param_1 =
value_1, ..., param_n = value_n where param_i is formated as a parameter and value_i is formatted
as a value.

Usage

```
newParameterList(..., separator = " = ", exportId = NULL,
  protection = PROTECTION.PUBLIC)
```

Arguments

...	2n strings that will be contactenated to form the parameter-value pairs. Strings at positions 1, ..., 2n - 1 will be treated as parameters 1 through n and strings at positions 2, ..., 2n will be treated as values 1 through n.
separator	String to be used to separate parameters and values. Whitespace characters need to be supplied if required.
exportId	Unique string to identify this element. Used to retrieve the element using getExportedElement.
protection	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newReport	*Create a new report with pre-defined sections Overview/Introduction, Overview/Summary, Results, Methods & Data/Input, Methods & Data/References and Meta Data.*

Description

Create a new report with pre-defined sections Overview/Introduction, Overview/Summary, Results, Methods & Data/Input, Methods & Data/References and Meta Data.

Usage

```
newReport(..., version = 0)
```

Arguments

`...`	One or more strings that will be concatenated into the report title.
`version`	Version number. Not in use.

Value

A new report element.

Author(s)

Nils Gehlenborg (nils@hms.harvard.edu)

---

newResult	*Create a new result element.*

Description

Create a new result element.

Usage

```
newResult(..., isSignificant = FALSE,
  protection = PROTECTION.PUBLIC)
```

Arguments

`...`	One or more strings that will be concatenated to form the text associated with the result (often just a scalar or single string).
`isSignificant`	If TRUE, the result will be declared signficant.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newSection   *Create a new section element.*

Description

Create a new section element.

Usage

```
newSection(..., class = "", exportId = NULL,
  protection = PROTECTION.PUBLIC)
```

Arguments

`...`	Strings that will be contactenated to form the section title.
`class`	If set to SECTION.CLASS.RESULTS, results can be reported in this section. If set to SECTION.CLASS.META the section will be a meta data section.
`exportId`	Unique string to identify this element. Used to retrieve the element using `getExportedElement`.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PRO-TECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newSubSection   *Create a new subsection element.*

Description

Create a new subsection element.

Usage

```
newSubSection(..., exportId = NULL,
  protection = PROTECTION.PUBLIC)
```

Arguments

`...`	Strings that will be contactenated to form the subsection title.
`exportId`	Unique string to identify this element. Used to retrieve the element using `getExportedElement`.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PRO-TECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newSubSubSection *Create a new subsubsection element.*

Description

Create a new subsubsection element.

Usage

```
newSubSubSection(..., exportId = NULL,
  protection = PROTECTION.PUBLIC)
```

Arguments

...	Strings that will be contactenated to form the subsubsection title.
exportId	Unique string to identify this element. Used to retrieve the element using getExportedElement.
protection	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

newTable *Create new table element.*

Description

Create new table element.

Usage

```
newTable(table, ..., file = NA,
  significantDigits = TABLE.SIGNIFICANT.DIGITS,
  exportId = NULL, protection = PROTECTION.PUBLIC)
```

Arguments

`table`	A matrix or data frame containing the table data. Column names will be extracted and used as column headers.
`...`	Strings that will be concatenated to form the table caption.
`file`	Path or URL to a file containing the full table. It is recommend to only show a relevant subset of all results in the report itself to increase readability.
`significantDigits`	
	Number of significant digits used to trim all numeric columns. The default is `TABLE.SIGNIFICANT.DIGITS`.
`exportId`	Unique string to identify this element. Used to retrieve the element using `getExportedElement`.
`protection`	Procection level. One of PROTECTION.PUBLIC, PROTECTION.GROUP, PROTECTION.PRIVATE.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

`newWebCitation`	*Create a citation element that represents a document published online.* *This is a convenience wrapper for* `newCitation`.

Description

Create a citation element that represents a document published online. This is a convenience wrapper for `newCitation`.

Usage

```
newWebCitation(authors, title, url)
```

Arguments

`authors`	Names of authors.
`title`	Title of the document.
`url`	URL of the document.

Value

New element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

PROTECTION.GROUP   *Group visibility.*

Description

Group visibility.

Usage

```
PROTECTION.GROUP
```

Format

num 5

PROTECTION.PRIVATE   *Private visibility.*

Description

Private visibility.

Usage

```
PROTECTION.PRIVATE
```

Format

num 10

PROTECTION.PUBLIC   *Public visibility.*

Description

Public visibility.

Usage

```
PROTECTION.PUBLIC
```

Format

num 0

PROTECTION.TCGA *Group visibility.*

Description

Group visibility.

Usage

```
PROTECTION.TCGA
```

Format

num 5

RDATA.REPORT *Output type.*

Description

Output type.

Usage

```
RDATA.REPORT
```

Format

chr "rdata"

SECTION.CLASS.META *Section class.*

Description

Section class.

Usage

```
SECTION.CLASS.META
```

Format

chr "meta"

SECTION.CLASS.RESULTS *Section class.*

Description

Section class.

Usage

```
SECTION.CLASS.RESULTS
```

Format

chr "results"

---

setContactInformation *Set contact information for* report. *This is used to create a "contact" button in the top right corner of the report, e.g. to collect feedback about the report.*

Description

Set contact information for report. This is used to create a "contact" button in the top right corner of the report, e.g. to collect feedback about the report.

Usage

```
setContactInformation(report, email, subject, message,
  label = NA)
```

Arguments

report	Report element.
email	Email address of the recipient of contact emails.
subject	Subject of the email to be sent.
message	Message used to pre-populate the email body.
label	Label for the button, e.g. "Contact Us".

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setCopyright   *Set copyright messsage for* report.

Description

Set copyright messsage for report.

Usage

```
setCopyright(report, owner, year, statement = NA,
  url = NA)
```

Arguments

report	Report element.
owner	Copyright owner, e.g. "The President and Fellows of Harvard College".
year	Copyright year, e.g. "2012" or "2011-2013".
statement	Copyright statement, e.g. "All rights reserved.".
url	A URL that will be linked to the copyright owner.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setCustomPrintCss   *Set the path or URL of the CSS file to be used to overwrite the default*
                           print (not: screen) style sheet. Can be relative or absolute.

Description

Set the path or URL of the CSS file to be used to overwrite the default print (not: screen) style sheet.
Can be relative or absolute.

Usage

```
setCustomPrintCss(report, cssFile)
```

Arguments

report	Report element.
cssFile	URL or a relative or absolute path to a CSS file.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setCustomScreenCss	*Set the path or URL of the CSS file to be used to overwrite the default screen (not: print) style sheet. Can be relative or absolute.*

Description

Set the path or URL of the CSS file to be used to overwrite the default screen (not: print) style sheet. Can be relative or absolute.

Usage

```
setCustomScreenCss(report, cssFile)
```

Arguments

report	Report element.
cssFile	URL or a relative or absolute path to a CSS file.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setFigureFile	*Set path or URL of image file associated with a figure element. Paths can relative or absolute.*

Description

Set path or URL of image file associated with a figure element. Paths can relative or absolute.

Usage

```
setFigureFile(element, file)
```

Arguments

element	A figure element.
file	Path or URL of the image file.

Value

Updated figure element or NA is `element` is not a figure.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setFigureFileHighRes   *Set path or URL of high-resolution or vector-based image file associ-*
                        ated with a figure element. Paths can be relative or absolute.

Description

Set path or URL of high-resolution or vector-based image file associated with a figure element.
Paths can be relative or absolute.

Usage

```
setFigureFileHighRes(element, file)
```

Arguments

element   A figure element.

file   Path or URL of the image file.

Value

Updated figure element or NA is element is not a figure.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setGoogleAnalyticsId   *Set the Google Analytics tracking ID to be embedded in this report*
                        ("web property id", usually starts with "UA-").

Description

Set the Google Analytics tracking ID to be embedded in this report ("web property id", usually
starts with "UA-").

Usage

```
setGoogleAnalyticsId(report, id)
```

Arguments

report   Report element.

id   Web property ID for the Google Analytics tracking account.

Value

Updated report element.

Note

A (free) Google Analytics account is required.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

References

http://www.google.com/analytics

| setLogo | *Set a logo file for one of six positions (three at the top, three at the bottom) in* report*, e.g. an institute logo.* |

Description

Set a logo file for one of six positions (three at the top, three at the bottom) in report, e.g. an institute logo.

Usage

```
setLogo(report, filename, position)
```

Arguments

report	Report element.
filename	Path or URL to the logo file (relative) to the final location of the report HTML file.
position	One of LOGO.TOP.LEFT, LOGO.TOP.CENTER, LOGO.TOP.RIGHT, LOGO.BOTTOM.LEFT, LOGO.BOTTOM.CENTER, LOGO.BOTTOM.RIGHT.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setMaintainerAffiliation

Set affiliation of maintainer of report.

Description

Set affiliation of maintainer of report.

Usage

```
setMaintainerAffiliation(report, ...)
```

Arguments

report   Report element.

...   One or more strings that will be concatenated to form the affiliation of the main-
                tainer.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setMaintainerEmail   *Set email address of maintainer of* report.

Description

Set email address of maintainer of report.

Usage

```
setMaintainerEmail(report, ...)
```

Arguments

report   Report element.

...   One or more strings that will be concatenated to form the email address of the
                maintainer.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setMaintainerName   *Set name of maintainer of* report.

Description

Set name of maintainer of report.

Usage

```
setMaintainerName(report, ...)
```

Arguments

report   Report element.

...   One or more strings that will be concatenated to form the name of the maintainer.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setNextReport   *Set the URL and title of the "next" report after* report. *This will be accessible through the utility menu.*

Description

Set the URL and title of the "next" report after report. This will be accessible through the utility menu.

Usage

```
setNextReport(report, url, ...)
```

Arguments

report   Report object.

url   URL of the next report.

...   One or more strings that will be concatenated to form the title of the next report.

Value

Updated report element.

Author(s)

nils

---

setParentReport   *Set the URL and title of the "parent" report above* report. *This will*
                                   be accessible through the utility menu.

Description

Set the URL and title of the "parent" report above report. This will be accessible through the utility menu.

Usage

```
setParentReport(report, url, ...)
```

Arguments

report   Report object.

url   URL of the next report.

...   One or more strings that will be concatenated to form the title of the parent
                    report.

Value

Updated report element.

Author(s)

nils

---

setPreviousReport   *Set the URL and title of the "previous" report before* report. *This will*
                                   be accessible through the utility menu.

Description

Set the URL and title of the "previous" report before report. This will be accessible through the utility menu.

Usage

```
setPreviousReport(report, url, ...)
```

Arguments

report   Report object.

url   URL of the next report.

...   One or more strings that will be concatenated to form the title of the previous
                    report.

Value

Updated report element.

Author(s)

nils

---

setReportTitle *Set the title of* report.

Description

Set the title of report.

Usage

```
setReportTitle(report, ...)
```

Arguments

report   Report element.

...   One or more strings that will be concatenated to form the title of the report.

Value

Updated report element or NA if report has no title element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setSignificantEntity *Set name of entities that are called out as significant, e.g. "gene". This is currently not being used and might become obsolete in future versions of Nozzle.*

Description

Set name of entities that are called out as significant, e.g. "gene". This is currently not being used and might become obsolete in future versions of Nozzle.

Usage

```
setSignificantEntity(report, ...)
```

Arguments

report   Report element.

...   List of strings that will be concatenated to form the name of the entities.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setSoftwareName	*Set the name of the software that used Nozzle to generate* report, *e.g.* *"My Report Generator Script".*

Description

Set the name of the software that used Nozzle to generate report, e.g. "My Report Generator Script".

Usage

```
setSoftwareName(report, ...)
```

Arguments

report   Report element.

...   One or more strings that will be concatenated to form the name of the software.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setSoftwareVersion	*Set the name of the software that used Nozzle to generate* report, *e.g.* *"Version 1.2".*

Description

Set the name of the software that used Nozzle to generate report, e.g. "Version 1.2".

Usage

```
setSoftwareVersion(report, ...)
```

Arguments

report   Report element.

...   One or more strings that will be concatenated to form the version of the software.

Value

Updated report element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

---

setTableFile   *Set path or URL of file associatd with table element.*

Description

Set path or URL of file associatd with table element.

Usage

```
setTableFile(element, file)
```

Arguments

element   Table element.

file   Path or URL to file.

Value

Updated element.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

TABLE.SIGNIFICANT.DIGITS
                    *Default number of significant digits to be used to trim numeric
                    columns in tables.*

Description

Default number of significant digits to be used to trim numeric columns in tables.

Usage

```
TABLE.SIGNIFICANT.DIGITS
```

Format

num 2

---

writeReport	*Write* report *to file.*

Description

Write report to file.

Usage

```
writeReport(report, filename = DEFAULT.REPORT.FILENAME,
    debug = FALSE, output = c(HTML.REPORT, RDATA.REPORT),
    credits = TRUE, level = PROTECTION.PUBLIC,
    debugCss = NA, debugJavaScript = NA)
```

Arguments

report	The report to be written.
filename	Name of the output file without file extension.
debug	If TRUE, external CSS (debugCss) and JavaScript (debugJavaScript) can be supplied.
output	A list of output formats. Any combination of HTML.REPORT and RDATA.REPORT is allowed.
credits	If TRUE, a note and a link will be included at the bottom of the report to indicate that it was created with Nozzle.
level	The protection level of the report. If set to PROTECTION.PUBLIC only elements with protection level PROTECTION.PUBLIC (default) will be included in the report. If set to PROTECTION.GROUP, then all elements with protection level PROTECTION.PUBLIC and PROTECTION.GROUP will be included. If set to PROTECTION.PRIVATE all elements will be included.
debugCss	A path or URL to a CSS file that should be used instead of the built-in CSS. Only used if debug is TRUE.
debugJavaScript	
	A path or URL to a JavaScript file that should be used instead of the built-in JavaScript. Only used if debug is TRUE.

Author(s)

Nils Gehlenborg <nils@hms.harvard.edu>

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