Package 'DynDoc'

March 26, 2013

Title Dynamic document tools

Version 1.36.0

Author R. Gentleman, Jeff Gentry

Description A set of functions to create and interact with dynamic documents and vignettes.

Depends methods, utils

Imports methods

Maintainer Bioconductor Package Maintainer <maintainer@bioconductor.org>

License Artistic-2.0

LazyLoad Yes

Collate tangleToR.R DynDoc.R vignetteClass.R vigList.R vignetteCode.R zzz.R

biocViews ReportWriting, Infrastructure

R topics documented:

chunkList-class *Class "chunkList"*

Description

This class is essentially a wrapper for the codeChunk class. It contains all of the codeChunks from a vignette file.

Objects from the Class

Objects can be created by calls of the form new("chunkList", ...).

Slots

chunks**:** Object of class "list" Stores a list of codeChunk objects, representing all of the code chunks from a vignette file.

evalEnv**:** Object of class "environment" An environment used for evaluation of the code chunks.

Methods

show signature(object = "chunkList"): Displays verbose information about the code chunks

chunks signature(object = "chunkList"): Retrieves a list of codeChunk objects

getAllCodeChunks signature(object = "chunkList"): Collapses all of the code chunks into one block of code and returns this

getChunk signature(object = "chunkList"): Retrieves a specific code chunk

numChunks signature(object = "chunkList"): Returns the number of code chunks in this object

setChunk<- signature(object = "chunkList", value="character"): Changes the code in a given codeChunk contained by this object

summary signature(object = "chunkList"): A less verbose display of information about the object

evalChunk signature(object = "chunkList",pos="numeric"): Evaluates the code chunk at the specified position in the chunkList object

Author(s)

Jeff Gentry

See Also

Sweave, codeChunk, vignetteCode

Examples

```
library("utils")
testfile <- system.file("Sweave", "Sweave-test-1.Rnw", package="utils")
z <- Stangle(testfile,driver=tangleToR)
```

codeChunk-class *Class "codeChunk"*

Description

A class to wrap necessary information for a code chunk from a vignette file.

Objects from the Class

Objects can be created by calls of the form new("codeChunk", ...).

Slots

chunkName**:** Object of class "character" The name (if one exists) for the code chunk

chunk**:** Object of class "character" The code from the code chunk

options**:** Object of class "SweaveOptions" Any options that were set at the time the code chunk appears in the vignette file

Methods

evalChunk signature(object = "codeChunk",env="environment"): Will evaluate the code in the code chunk using the environment specified. If no environment is specified, .GlobalEnv is used.

show signature(object = "codeChunk"): Displays the information for the code chunk

chunk<- signature(object = "codeChunk",value="character"): Edits the chunk slot of the object

chunk signature(object = "codeChunk"): Returns the chunk slot of the object

chunkName signature(object = "codeChunk"): Returns the name of the code chunk

getOptions signature(object = "codeChunk"): Returns the actual options from the options slot.

SweaveOptions signature(object = "codeChunk"): Returns the object stored in the options slot.

Author(s)

Jeff Gentry

See Also

Sweave, SweaveOptions, chunkList

Examples

```
require("utils")
testfile <- system.file("Sweave", "Sweave-test-1.Rnw", package="utils")
z <- Stangle(testfile,driver=tangleToR)
getChunk(z,1)
```

DynDoc-class *A Class For Dynamic Documents*

Description

The DynDoc class is used to represent dynamic documents and vignettes in R.

Slots

indexEntry: Object of class "character" The IndexEntry value from the document file

title: Object of class "character" The name of the document

path: Object of class "character" The path to the locally stored file

pdfPath: Object of class "character" The path to a PDF rendition of the document

depends: Object of class "character" Any package dependencies for the document

requires: Object of class "character" Any requires level dependencies for the document

suggests: Object of class "character" Any suggests level dependencies for the document

keywords: Object of class "character" Any keywords for the document

codeChunks: Object of class "chunkList" The code chunks contained in this document

Methods

show signature(object = "DynDoc"): Display information about the dynamic document

summary signature(object = "DynDoc"): A more succinct informational display

chunks signature(object = "DynDoc"): Returns the code chunks - currently in only for historical compatability with old code

codeChunks signature(object = "DynDoc"): Returns the code chunks

evalChunk signature(object = "DynDoc"): Will evaluate the R code contained in a chunk

getChunk signature(object = "DynDoc"): Retrieves a specific code chunk

getDepends signature(object = "DynDoc"): Obtain the Depends slot of the object

getKeywords signature(object = "DynDoc"): Obtain the keywords slot of the object

getRequires signature(object = "DynDoc"): A get method for the requires slot of this object

getSuggests signature(object = "DynDoc"): Obtain the suggests slot of this object

indexEntry signature(object = "DynDoc"): Obtain the indexEntry slot of this object

numChunks signature(object = "DynDoc"): Returns the number of code chunks for this document

path signature(object = "DynDoc"): Obtain the path slot of this object

pdfPath signature(object = "DynDoc"): Obtain the pdfPath slot of this object

setChunk<- signature(object = "DynDoc"): Change the code for one of the code chunks.

Author(s)

Jeff Gentry

See Also

Sweave

getPkgVigList *A function to retrieve a listing of package vignettes*

Description

Functionality to retrive vignette metadata, on a per-vignette or a per-package level.

Usage

```
getPkgVigList(pkg, vigDescFun=baseVigDesc, vigPath = "/doc/",
vigExt="\\.(Rnw|Snw|rnw|snw|Rtex)$", pkgVers = TRUE)

getVigInfo(vig,pkg=NULL, vigDescFun=baseVigDesc, pkgVers=TRUE)
```

Arguments

pkg	Path to a package directory
vig	Filename of a vignette
vigDescFun	Function to provide output string for display
vigPath	Path to directory that contains vignettes in the package
vigExt	Regular expression pattern to match vignette file extensions
pkgVers	Record the package version with the other vignette metadata

Details

getPkgVigList: This function will look at all vignette files in the directory <pkg>/<vigPath>. It will then extract any header information (using getVigInfo), and return a list of this information.

getVigInfo: This function will retrieve the metadata from a particular vignette file. Any line starting with '%\Vignette' is taken to be metadata. Common values include VignetteIndexEntry (required), VignetteKeywords, VignetteDepends, etc. A named list of lists is returned to the user, where the names correspond to the particular metadata variable.

Both functions take a parameter baseVigDesc, which is a function to provide the output string to correspond with a vignette summary. This function is directly called by getVigInfo. It takes one parameter, which is a vigInfo list from getVigInfo.

Author(s)

Jeff Gentry

See Also

vignette

Examples

```
## Not run:
  ## We need a vignette for this to work
  dynPath <- system.file(package="DynDoc")
  vigList <- getPkgVigList(dynPath)
  vigList

## End(Not run)
```

---

getVignette *A function to handle vignette files*

Description

This function will take a vignette file and return a Vignette object in R which can be manipulated further.

Usage

```
getVignette(vigPath, eval = TRUE)
```

Arguments

vigPath	The file path of the vignette file
eval	Whether or not to evaluate the code chunks

Details

This function should still be considered experimental

Value

A valid Vignette object representing this vignette

Author(s)

Jeff Gentry

See Also

Vignette-class

getVignetteCode *Functionality to manage code chunks from a vignette*

Description

These functions allow for processing and management of vignette code chunks within R. Users can directly manipulate the code chunks, as well as evaluate them at their option.

Usage

```
getVignetteCode(vigPath, evalEnv = new.env())
editVignetteCode(vigCode, pos, code)
```

Arguments

vigPath	File path of vignette file to process
evalEnv	An environment to use for chunk evaluations
vigCode	The vignetteCode object to edit
pos	The position of the code chunk to edit
code	The new code chunk

Details

getVignetteCode: This function will call Stangle using the tangleToR driver in order to retrieve the code chunks from the specified vignette file. It will then compile the other pertinent information and return a new vignetteCode object.

editVignetteCode: This function will edit a code chunk contained within a vignetteCode and return a new object representing that change. The evaluation environment in the new object is a copy of the original as well, *not* the same environment.

Author(s)

Jeff Gentry

See Also

Sweave,vignetteCode,tangleToR

---

getVignetteHeader *A function to read vignette header information*

Description

Given a vignette filename, will read in the vignette header metadata.

Usage

```
getVignetteHeader(vig, field)
hasVigHeaderField(vig, field="VignetteIndexEntry")
```

Arguments

vig	Vignette filename
field	A specific field to extract

Details

The getVignetteHeader function will extract the metadata from a vignette file and return it as a named list, where the names of the list elements correspond to the metadata fields, and the elements themselves the values. If a specific field is desired, it can be specified with the 'field' argument.

The hasVigHeaderField function is a simple wrapper around getVignetteHeader and will most likely be removed in the very near future. It just is a boolean to report if a given header field exists or not.

Author(s)

Jeff Gentry

SweaveOptions-class *Class "SweaveOptions", a class to handle options in Sweave*

Description

A small class designed to hold a set of Sweave options

Objects from the Class

Objects can be created by calls of the form new("SweaveOptions", ...).

Slots

options**:** Object of class "list" A list of strings representing options from a Sweave document.

Methods

show signature(object = "SweaveOptions"): Outputs the options

getOptions signature(object = "SweaveOptions"): Retrieves the options

numOptions signature(object = "SweaveOptions"): Returns the number of options

Author(s)

Jeff Gentry

See Also

Sweave, codeChunk

tangleToR *An Sweave driver to retrieve code chunks*

Description

A driver function for Sweave which will provide the user with code chunks from a vignette file within R. Functionality is very similar to that provided by Stangle except that an R object is returned as opposed to the chunks being written to a file.

Usage

```
tangleToR()
```

Value

An object of type chunkList is returned, which contains the code chunks from the vignette file.

Author(s)

Jeff Gentry

See Also

Stangle,Sweave, chunkList

Examples

```
require("utils")
testfile <- system.file("Sweave", "Sweave-test-1.Rnw", package="utils")
z <- Stangle(testfile,driver=tangleToR)
```

Vignette-class *A Class To Represent Vignettes*

Description

This is a class that will represent a vignette file in R, it extends the DynDoc class

Slots

package**:** Object of class "character" The package that this vignette is associated with

vigPkgVersion**:** Object of class "VersionNumber" The version number for this vignette's package

indexEntry**:** Object of class "character", from class "DynDoc" The VignetteIndexEntry field from the document file

title**:** Object of class "character", from class "DynDoc" The title of the vignette

path**:** Object of class "character", from class "DynDoc" The path to the vignette file stored locally

pdfPath**:** Object of class "character", from class "DynDoc" The path to a PDF representation of the vignette

depends: Object of class "character", from class "DynDoc" Any package dependencies for this vignette

requires: Object of class "character", from class "DynDoc" Any requires level dependencies for this vignette

suggests: Object of class "character", from class "DynDoc" Any suggests level dependencies for this vignette

keywords: Object of class "character", from class "DynDoc" Any keywords for this vignette

codeChunks: Object of class "chunkList", from class "DynDoc" A list of code chunks from this vignette

Extends

Class "DynDoc", directly.

Methods

package signature(object = "Vignette"): Retrieves the package name that this vignette is associated with

vigPkgVersion signature(object = "Vignette"): Retrieves the version of the package that this vignette is associated with

Note

The Vignette class is extending the DynDoc class by further associating the DynDoc concepts with a specific R package.

Author(s)

Jeff Gentry

See Also

DynDoc-class, Sweave

---

vignetteCode-class *Class "vignetteCode"*

Description

This class represents the code chunks and other related information from a vignette file. It also provides for the ability to evaulate the code chunks in a separate environment.

Objects from the Class

Objects can be created by calls of the form new("vignetteCode", ...) Also, a helper function getVignetteCode is provided that will do all of the dirty work required to retrieve a vignetteCode object from a vignette file.

Slots

chunkList: Object of class "chunkList" Holds the code chunks from the vignette file

path: Object of class "character" The path of the vignette file

vigPackage: Object of class "character" The package (if appropriate) that the vignette came from

depends: Object of class "character" Any package dependencies for the vignette

evalEnv: Object of class "environment" An environment used for evaluation of the code chunks.

Methods

show signature(object = "vignetteCode"): Displays information about the code contained in the object

chunkList signature(object = "vignetteCode"): Retrieves the chunkList object.

chunks signature(object = "vignetteCode"): Retrieves the actual code chunks (not wrapped by the chunkList class)

getDepends signature(object = "vignetteCode"): Returns the list of package dependencies for this vignette

evalChunk signature(object = "vignetteCode",pos="numeric"): Will evaulate the specified code chunk in the evalEnv environment

evalEnv signature(object = "vignetteCode"): Returns the evaluation environment

getChunk signature(object = "vignetteCode",pos="numeric"): Returns the codeChunk object representing the specified code chunk position

numChunks signature(object = "vignetteCode"): Returns the number of chunks in the object

vigPackage signature(object = "vignetteCode"): Returns the package the vignette is a part of

path signature(object = "vignetteCode"): Returns the local file path to the vignette

setChunk<- signature(object = "vignetteCode",pos="numeric", value="character"): Resets the code chunk specified by pos to contain the code specified by value

summary signature(object = "vignetteCode"): A less verbose output of information then with show

Author(s)

Jeff Gentry

See Also

Sweave, getVignetteCode, editVignetteCode, chunkList

Index