Package 'cacheSweave'

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Title Tools for caching Sweave computations

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Depends R (>= 2.14.0), filehash, stashR

Imports utils, digest

Suggests xtable

LazyLoad yes

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Description Tools for caching Sweave computations and storing them in key-value databases

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URL https://github.com/rdpeng/cachesweave

Repository CRAN

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R topics documented:

cacheSweave *Cache Sweave Computations*

Description

Cache computations when using Sweave

Usage

```
cacheSweaveDriver()
cacheTangleDriver()
```

Details

Computations in Sweave documents can be cached by setting the option `cache=true` in the code check declaration. When this option is set, objects that are created in the code chunk (either through assignment or by side effects) are stored in a key-value database in the directory specified by `setCacheDir`.

Caching and dependencies is implemented by storing chunks modification time in a metadata database. To use dependencies label your dependencies and refer to them using the syntax `dependson=A;B`. See example. You can add trace information to your output file using the option `trace=true`. This will show the modification times of the chunks and whether cached or newly evaluated chunks are being used.

The `cacheSweaveDriver` function is used directly with `Sweave` and is passed as the `driver` argument. For tangling the `cacheTangleDriver` needs to be used if you have dependencies in your source file.

`cacheSweaveDriver` also creates a "map file" which has the extention ".map" which contains metadata for each of the code chunks in a document. This map file can be used in conjunction with the `RRPM` package for creating reproducible research packages.

Value

Nothing useful is returned.

Note

Code chunks that have side effects that do not result in objects being created in the global environment (i.e. plotting or system interaction) should generally not be cached since the code will not be run upon reevaluation.

Author(s)

Roger D. Peng <rpeng@jhsph.edu>, with much code for `cacheSweaveDriver` copied from Sweave source by Friedrich Leisch

See Also

Sweave and package RRPM

Examples

```
## Not run:
<<A,cache=true>>=
x <- rnorm(100)
@
<<B,cache=true>>=
y <- rnorm(100)
@
<<C,cache=true,dependson=A;B>>=
print(sum(x,y))
@

## End(Not run)
```

---

setCacheDir *Set Cache Directory*

Description

Set/Get cache directory where files are stored

Usage

```
setCacheDir(path)
getCacheDir()
```

Arguments

path	character, directory where cache files will be stored

Details

setCacheDir will create the cache directory if it does not already exist. When the package cacheSweave is loaded, the cache directory is initially set to the current directory ("."). This function should generally be called in the very first code chunk of the Sweave document and caching should *not* be turned on for that code chunk.

Value

getCacheDir returns the current cache directory.

Author(s)

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