# 1 tframe Functions

The functions in this package are made available with

```
> library("tframe")
```

The code from the vignette that generates this guide can be loaded into an editor with *edit(vignette("tframe"))*. This uses the default editor, which can be changed using *options()*. It should be possible to view the pdf version of this package guide with *print(vignette("tframe"))*.

The main functions in this package that might be called directly by users are *tfplot*, *diffLog*, *percentChange*, *trimNA* and *tsScan*. See the help for more details and examples.

The *tframe* functions are programming utilities used by other packages. For example, packages *dse*,*tsfa*,*TSdbi* use this set of utilities. The object of these functions is to be able to write code with *tframe(y) <- tframe(x)*, to assign the time attributes (tframe) of $x$ to $y$, without needing to handle details of the time representation and without concern for the number of series in $x$ and $y$, which need not be the same. A check is made to ensure the number of periods in the data correspond with the number implied by the tframe.

The hope is that this is done in a way that allows easy extention in the future. That is, code using *tframe* should not need to be changed if some data has a newly introduce time representation. This may require some changes to tframe itself, but the design should usually allow new representations to be accommodated by additional methods for those representation.

There is an attempt to use the same time representation for $y$ as $x$ has (e.g. ts, zoo, its), but this cannot be guaranteed because $y$ may not be representable using the $x$ represnetation. For example, $x$ might be an "mts" constructed with *ts()* whereas $y$ is a list with some data structures. In this case, a "pure tframe" approach is used.

The main programing utilities are *tframe* and *tframe<-*. For additinal details see the help for these and *tframe-package*.