

# Package ‘tkrgl’

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**Title** TK widget tools for rgl package

**Version** 0.6.1

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**Description** TK widget tools for rgl package

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**License** GPL

**Depends** R (>= 2.0.0), tcltk, rgl (>= 0.66)

**SystemRequirements** rgl packages for rendering

**URL** <http://www.stats.uwo.ca/faculty/murdoch>

**Repository** CRAN

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tkrgl-package	<i>TK widget tools for rgl package</i>
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## Description

This package provides a TK spin control for the rgl package.

## Details

Package: tkrgl  
 Version: 0.3  
 License: GPL  
 Depends: R (>= 1.9.0), tcltk, rgl (>= 0.66)  
 SystemRequirements: rgl packages for rendering  
 URL: <http://www.stats.uwo.ca/faculty/murdoch>

#### History:

0.2-2 First public release  
 0.3 Added possibility to control multiple windows  
 0.4 Compatibility with 2.0.0 tcltk package  
 0.5 Added continuous rotation  
 0.6 Added par3dsave

#### Index:

[spin3d](#) Create TCL/TK controller for rgl window(s)  
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#### Author(s)

Duncan Murdoch/Ming Chen

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par3dsave

*Modal dialog for saving par3d settings*

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#### Description

This function opens a modal dialog to allow particular views of an rgl scene to be saved.

#### Usage

```
par3dsave(params = c("userMatrix", "scale", "zoom", "FOV"), times = FALSE, dev = rgl)
```

#### Arguments

params Which parameters to save  
 times Should times be saved as well?  
 dev Which rgl device to work with

**Details**

This opens a modal dialog box with `Record` and `Quit` buttons. Each time `Record` is clicked, a snapshot is taken of current `par3d` settings. When `Quit` is clicked, the dialog closes and the values are returned in a list.

If `times == TRUE`, then the times at which the views are recorded will also be saved, so that the `play3d` function will play back with the same timing.

**Value**

A list of the requested components. Each one will consist of a list of values that were current when the `Record` button was clicked. These are suitable to be passed directly to the `par3dinterp` function.

**Author(s)**

Duncan Murdoch

**See Also**

`par3d`, `par3dinterp`

**Examples**

```
## Not run:

# Record a series of positions, and then play them back immediately
# at evenly spaced times, in an oscillating loop

play3d( par3dinterp( par3dsave() ) )

# As above, but preserve the click timings

play3d( par3dinterp( par3dsave(times=TRUE) ) )
## End(Not run)
```

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spin3d

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*Create TCL/TK controller for rgl window*


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**Description**

This function creates a TCL/TK window containing buttons to spin and resize one or more `rgl` windows.

**Usage**

```
spin3d(dev = rgl.cur())
```

**Arguments**

dev                    A vector of one or more rgl device numbers to control.

**Author(s)**

Ming Chen and Duncan Murdoch

**See Also**

[spinControl](#)

**Examples**

```
if (interactive()) {
  open3d()
  rgl.bringtotop(TRUE)
  points3d(rnorm(100), rnorm(100), rnorm(100), size=3)
  axes3d()
  box3d()
  spin3d()
}
```

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spinControl

*Create a spin control in a TCL/TK window*

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**Description**

This function may be used to embed a spin control in a TCL/TK window.

**Usage**

```
spinControl(base, dev = rgl.cur() )
```

**Arguments**

base                    The TCL/TK frame in which to insert this control.  
dev                    A vector of one or more rgl device numbers to control.

**Author(s)**

Ming Chen and Duncan Murdoch

**See Also**

[spin3d](#)

**Examples**

```
if (interactive()) {
  open3d()
  win1 <- rgl.cur()
  rgl.bringtotop(TRUE)
  plot3d(rexp(100), rexp(100), rexp(100), size=3, col='green')

  open3d()
  win2 <- rgl.cur()
  rgl.bringtotop(TRUE)
  plot3d(rt(100,2), rt(100,2), rt(100, 2), size=3, col='yellow')

  open3d()
  win3 <- rgl.cur()
  rgl.bringtotop(TRUE)
  plot3d(rexp(100), rexp(100), rexp(100), size=3, col='red')

  open3d()
  win4 <- rgl.cur()
  rgl.bringtotop(TRUE)
  plot3d(rbinom(100,10,0.5), rbinom(100,10,0.5), rbinom(100,10,0.5), size=3, col='cyan')

  base <- tktoplevel()
  tkwm.title(base, "Spinners")
  con1 <- spinControl(base, dev=c(win1,win2))
  con2 <- spinControl(base, dev=c(win3,win4))
  tkpack(con1, con2)
}
```

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