

Tcl/Tk with tcltk and tcltk2

Philippe Grosjean

January 11, 2007

The `tcltk` package is provided with R since a long time. It links R with the Tcl scripting language and its Tk toolkit for graphical user interface (GUI). The `tcltk` package is primarily designed to provide GUI elements for building dialog boxes for R, although as we will see, it has many more advantages. Tcl and Tk are very compact and run smoothly on all platforms supported by R (various Unixes, Linux, Windows, Mac OS). For the Windows distribution, the binaries are provided with the standard R installer (there is an option for not installing this extension)¹. Tcl/Tk is a much lighter solution than, let's say, Java, Gtk2, or even wxWindows.

On the counterpart, Tk is rather old-styled and old-looking on most platforms. Since the `tcltk` package proposes nothing more than the plain old Tk, we stick with this old look. This is where `tcltk2` supplements it, with the more modern `tile` toolkit (see <http://tktable.sourceforge.net/tile/>).

Installing tcltk2

Under Windows, you have nothing else to do than install the packages from CRAN or a local .zip binary of the `tcltk2` package, providing you also installed the Tcl/Tk extensions. Everything is self contained.

On other platforms, you need to install Tcl/Tk 8.4 and a couple of additional packages that contain binary code: `tile` 0.7.2, `Tktable` 2.9, and `Img` 1.3.

First look at tcltk2

A quick demo of what `tcltk2` can do is better than a list of its features:

```
> 1 + 1
```

```
[1] 2
```

```
> 1 + 2
```

¹The Tcl binaries installed under Windows take less than 6Mb on the hard disk, so, there is *no* reason to uncheck this option during R installation