

## Technical Preparations for using the R-Commander-based GUI for DoE in R (R-Package RcmdrPlugin.DoE)

### Installation of the Software

1. Installation of **R** (at least Version 2.9.0, 2.9.2 is current) from <http://cran.r-project.org/> or a mirror close to you, where you can get **R** for Linux, MacOS and Windows.

#### System-specific hints:

- Under Windows, installation options for **R** must be changed from the default “multiple document interface” (MDI) to “single-document interface” (SDI).
- Under MacOS, you want the large installation that includes tcl/tk.
- Under Linux, you are on your own, because I have no experience with installation under Linux. Make sure to install **R** in a way that subsequent installation of further R-packages from source is supported.

2. If installation of **R** was successful, the program can be started (e.g. under Windows from an icon on the desktop or from the programs menu).

Now, additional packages can be installed from within **R**.

Under Windows, this can be done using the GUI menu “Packages”.

Alternatively, and perhaps more easily, installation for all operating systems can be done from the command line as follows (provided the computer is connected to the internet<sup>1</sup>):

Type

```
install.packages("RcmdrPlugin.DoE", dependencies = TRUE)
```

at the command line and submit it to **R** (commands are always passed to **R** by pressing the <Enter>-key, for those who really shun any programming).

This will first prompt you for choosing a CRAN mirror (choose one that has the latest versions of the packages available (e.g. the Austrian one)).

Next, it will install the R-package **RcmdrPlugin.DoE** and all packages on which it depends. This may take some time, but should not need interventions by the user.

3. If installation was successful, it may be necessary to start the R-Commander (R-package **Rcmdr**) once, because it installs many further packages at the first time it is started. Type

```
library(Rcmdr)
```

at the command line, and allow installation of additional packages. After again some download and installation time, software installation will be complete.

### How to access the installed software

After starting **R**, typing

```
library(RcmdrPlugin.DoE)
```

at the command line (called loading the **R**-package **RcmdrPlugin.DoE** in **R**-speak) opens the **R**-Commander with the additional functionality for Design of Experiments in the Menu „Design“ provided by package **RcmdrPlugin.DoE**.

If the R-Commander is closed intentionally or by mistake during an **R**-session, it can be re-opened by the command

```
Commander()
```

If the R-package **RcmdrPlugin.DoE** had already been loaded during the session, the re-opened R-Commander will continue to have the additional DoE-functionality (menu „Design“) available.

Once the package has been installed, users who do not want to program in **R** can access and use the DoE GUI and only need to learn the two commands shown in this section.

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<sup>1</sup> Under Windows, in case of problems with the download functions from inside **R**, consider [Windows FAQ 2.19](#) (The Internet download functions fail).