



## Installation instructions

VSN international

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### 1 Overview

The **msanova** function library and precompiled binaries are available for

- Microsoft Windows i86 and x86 64 systems
- Apple Macintosh i86 and x86 64 systems
- Linux i86 and x86 64 systems

**msanova** is distributed as a platform specific installer for the service component and an R package that installs in an R library. Installing msanova in R involves three steps:

- 1 Installation using the platform installer.
- 2 installing the msanova R package, and then
- 3 obtaining an activation code that installs a license file.

#### 1.1 Licensing

Initial use of the msanova package requires an activation code that installs a license file. This will restrict usage to a specified machine, group of machines, or network. The registration form can be completed online, and it contains information necessary to generate an activation code. Once the registration process completes, an activation code is sent to the user's email address. On receipt of an activation code, it must then be installed correctly for the license manager to use it.

### 2 Installing msanova

## 2.1 Microsoft Windows

The **msanova** functions and compiled code are installed using the **msanova** service component MSI installer download.

Once this installation has completed you will find a copy of the **msanova** R package in zip format, **msanova\_x.x-xxxxx.zip**, in your **My Documents\VSNi\msanova** folder, where **x.x-xxxxx** reflects the VSNI version number. One of the following methods can be used to install **msanova**:

- Install packages from local zip files on the Packages menu in the RGui
- The `install.packages()` function
- The batch processing command `R CMD INSTALL <package>`
- 

The first option is to install the package in the default library. Note that with Vista, Windows 7 and Windows 8 you will need administrator rights to install **msanova** in the default system location. Without administrator privileges you can still install the package to a local library.

- 1 Initiate an R session using Rgui.exe
- 2 Choose the Packages menu from the main window bar
- 3 Choose Install packages from local zip files from the Packages menu
- 4 Navigate to the location of the **msanova** R package file **msanova\_x.x-xxxxx.zip**
- 5 Select the zip file and click Open to install **msanova** in the default R library
- 6 The R function call `library(msanova)` will add the **msanova** package to the current R session search path. Consult the R documentation for ways to automate this or for alternative methods.

Help on the alternative installation methods is available via the help system within R by typing ***help(install.packages)*** or ***help(INSTALL)*** at the R command prompt.

## 2.2 Linux systems

**msanova** is distributed as service component installer native for your preferred platform ( rpm for linux and pkg for Mac ).

**msanova** R package is distributed in a tar.gz form, **msanova\_x.x-xxxxx.tar.gz**, where **x.x-xxxxx** reflects the VSNI version number.

- 1 Login as a root user and install the RPM download **msanova\_x.x-xxxxx-\*.rpm**.
- 2 Login as a user with write permission to the target **msanova** directory; this is typically a subdirectory in an R library.
- 3 At the system command prompt execute
- 4 **R CMD INSTALL [-l lib] msanova\_x.x-xxxxx.tar.gz**
- 5 The target library can be optionally specified via the -l flag. By default, packages are installed in the library rooted at the first directory given in the environment variable R\_LIBS, if this is set (and non-null), and into the default R library (for example, /usr/lib/R/library), otherwise.
- 6 The R function call library(msanova) will add msanova to the current R session search path. Consult the R documentation for ways to automate this, or for alternative methods.

## 2.3 Apple MacOSX systems

**msanova** can be installed manually on Mac systems by following the above steps for Linux. The default library location is under Frameworks folder. for example:

/Library/Frameworks/R.framework/Resources/library).

Alternatively, **msanova** can also be installed from the R GUI.

## 3 Activating the **msanova** package

A **msanova** activation code can be obtained from VSN International by completing the registration form. The code is a unique 30-character combination of letters and digits.

### 3.1 Microsoft Windows systems

Upon receipt of the activation code, open an R session to install the R package and load the msanova library.

```
> install.packages("~/VSNi/msanova/msanova_1.0-17568.zip",
repos = NULL, type = "win.binary")
Installing package into 'C:/Users/vsnitest/Documents/R/win-
library/3.1'
(as 'lib' is unspecified)
package 'msanova' successfully unpacked and MD5 sums checked
> library("msanova", lib.loc="~/R/win-library/3.1")
Loading required package: lattice
msanova Attached from C:/Users/vsnitest/Documents/R/win-
```

### *library/3.1*

+++++

+

+ *msanova R package is unlicensed*

+

+ *No valid license found.*

+++++

*No valid license found. The msanova package can be activated from an interactive R session by manually invoking the msanova.activate() function.*

*This will require the entry of an activation code received within a VSNi email message.*

*Attaching package: 'msanova'*

> msanova.activate()

+++++

+

+ *msanova R package is unlicensed*

+

+ *No valid license found.*

+++++

*No valid license found. Initiating the license activation process now.*

*Does this system have a connection to the Internet and do you have*

*a VSNi msanova product activation code ready (Yes/No/Quit)?*

*1: y*

*Please enter your activation code and press ENTER:*

*1: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx*

*The activation process has been successful.*

>

If the activation process is not successful, please contact VSNi's support team for help.

### **3.2 Linux and Macintosh systems**

**msanova** can be activated on Mac and Linux systems by following the above steps for Windows.

## 4 Testing the Installation

Running a simple model fit will verify that the software and license are installed correctly.

```
> msanova.test()
```

```
Analysis of variance table
```

```
=====
```

```
Variate: yield
```

	d.f.	s.s.	m.s.	v.r.	F	pr.
blocks stratum	5	15875	3175	5.28		
blocks:wplots stratum						
variety	2	1786	893	1.49	0.272	
Residual	10	6013	601	3.40		
blocks:wplots:subplots stratum						
nitrogen	3	20020	6674	37.69	<1e-04	***
nitrogen:variety	6	322	54	0.30	0.932	
Residual	45	7969	177			
Total	71	51986				

```
---
```

```
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# open msanova vignette
```

```
> vignette("msanova")
```

## 5 Support

If you are unable to install or run **msanova**, or if you require further information or help, please contact VSN International:

**VSN International Ltd.**

**Unit 2, Amberside**

**Wood Lane**

**Hemel Hempstead**

**Herts HP2 4TP**

**United Kingdom**

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<http://www.vsni.co.uk> <mailto:support@vsni.co.uk>