

# Meet R Suite

Wit Jakuczun,  
WLOG Solutions

2017-11-30

R is a disruptive technology for  
modern analytics.

Nov 2017	Nov 2016	Change	Programming Language	Ratings	Change
1	1		Java	13.231%	-5.52%
2	2		C	9.293%	+0.09%
3	3		C++	5.343%	-0.07%
4	5	▲	Python	4.482%	+0.91%
5	4	▼	C#	3.012%	-0.65%
6	8	▲	JavaScript	2.972%	+0.27%
7	6	▼	Visual Basic .NET	2.909%	-0.26%
8	7	▼	PHP	1.897%	-1.23%
9	16	▲▲	Delphi/Object Pascal	1.744%	-0.21%
10	9	▼	Assembly language	1.722%	-0.72%
11	19	▲▲	R	1.605%	-0.11%

[Tiobe Index, 2017](#)

Big players have already  
noticed this and  
integrated with R

Microsoft

IBM

Oracle

SAS

Tibco

Tableau

# Why is R so popular?

Low barriers to  
start using it

Huge base of  
state-of-the-art  
packages

**Easy to build a  
team knowing R**

# Constantly changing R and packages versions

leads to

## Reproducibility Issues

**“I have heard on  
reproducibility but never had  
problems with that. I do not  
need this.”**

# “I do not need this” stories

My laptop/HDD went down and now I have to reproduce all my projects.

I would like to upgrade R but I upgrading packages is so *pain in the b...*

I would like to use newest package XYZ but it would destroy all my installed packages that other projects depends on.

I would like to share my R app with my friend but it requires package in version X.Y.Z and installing it would destroy all his installed packages.



# data.table

## 🔗 Changes in v1.9.8 (on CRAN 25 Nov 2016)

### POTENTIALLY BREAKING CHANGES

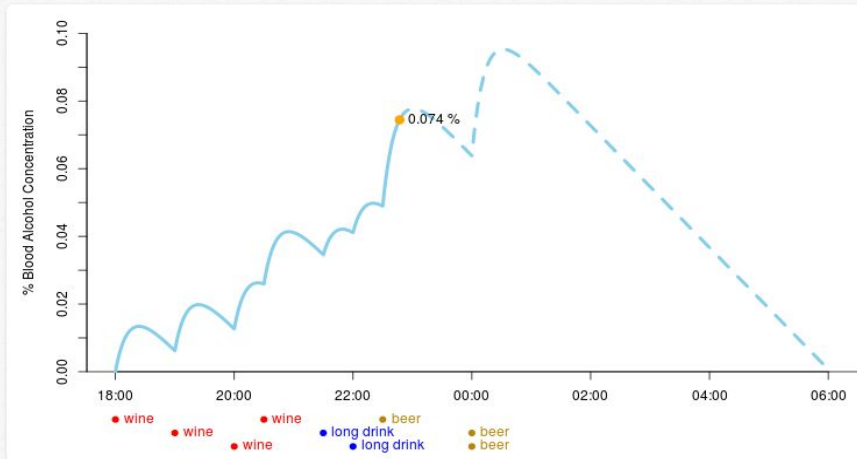
1. By default all columns are now used by `unique()`, `duplicated()` and `uniqueN()` data.table methods, [#1284](#) and [#1841](#).  
To restore old behaviour: `options(datatable.old.unique.by.key=TRUE)`. In 1 year this option to restore the old default will be deprecated with warning. In 2 years the option will be removed. Please explicitly pass `by=key(DT)` for clarity. Only code that relies on the default is affected. 266 CRAN and Bioconductor packages using data.table were checked before release. 9 needed to change and were notified. Any lines of code without test coverage will have been missed by these checks. Any packages not on CRAN or Bioconductor were not checked.

What is **Yours** “*do not need*” story?



# drinkR: Estimate your Blood Alcohol Concentration using R and Shiny.

Inspired by events that took place at [UserR 2014](#) last month I decided to implement an app that estimates one's blood alcohol concentration (BAC). Today I present to you [drinkR](#), implemented using R and [Shiny](#), Rstudio's framework for building web apps using R. So, say that I had a good dinner, drinking a couple of glasses of wine, followed by an evening at a divy karaoke bar, drinking a couple of [red needles](#) and a couple of beers. By entering my sex, height and weight and the times when I drank the drinks in the [drinkR app](#) I end up with this estimated BAC curve:



<http://www.sumsar.net/blog/2014/07/estimate-your-bac-using-drinkr/>

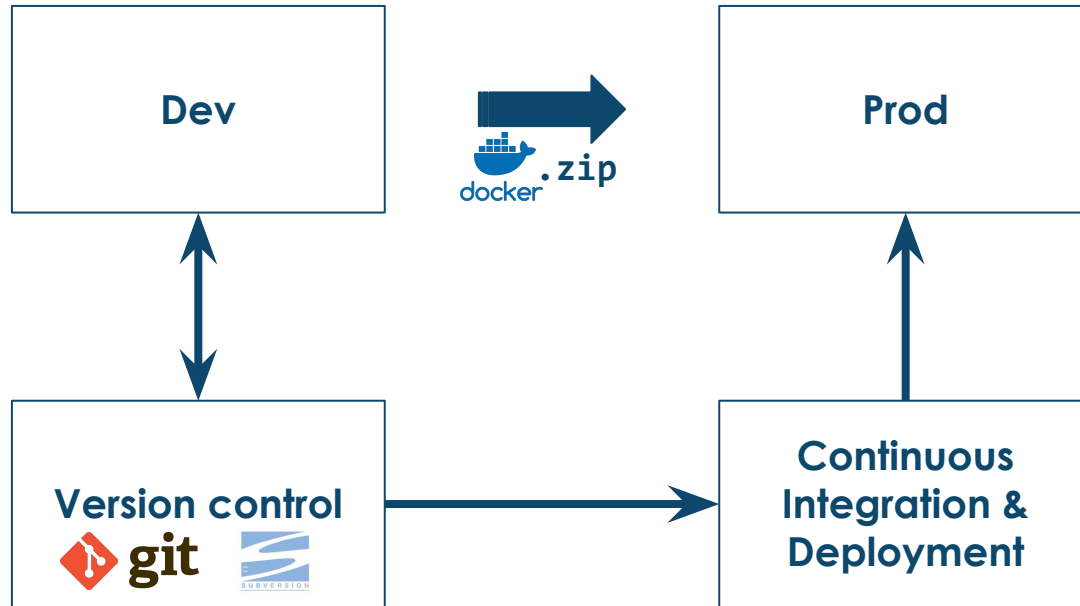
## Instruction (Windows only!)

1. Install **vanilla** R 3.4.2
2. Download package (<https://goo.gl/RnZAQg>)
3. Unzip
4. Open CMD
5. Rscript R/master.R \ --port=7137
6. In browser open <http://localhost:7137>

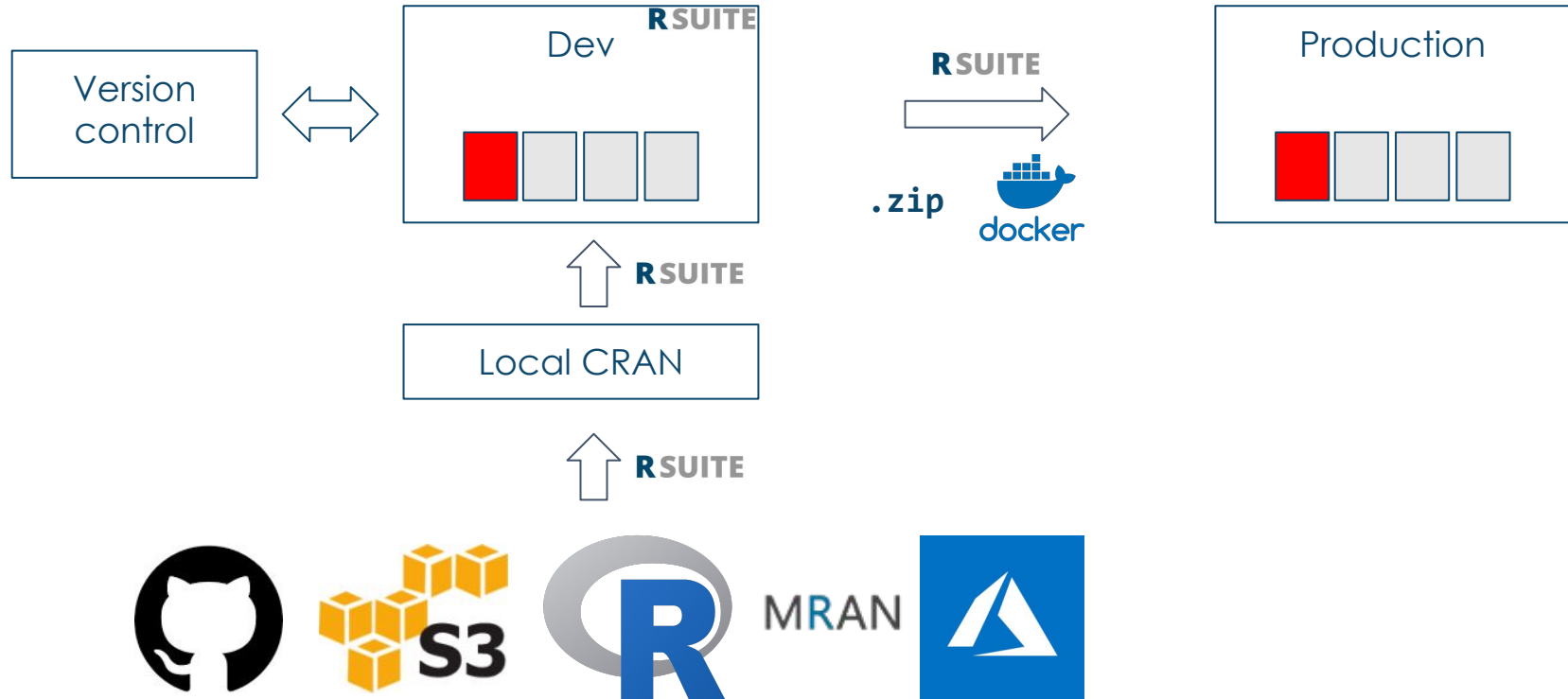
# Meet

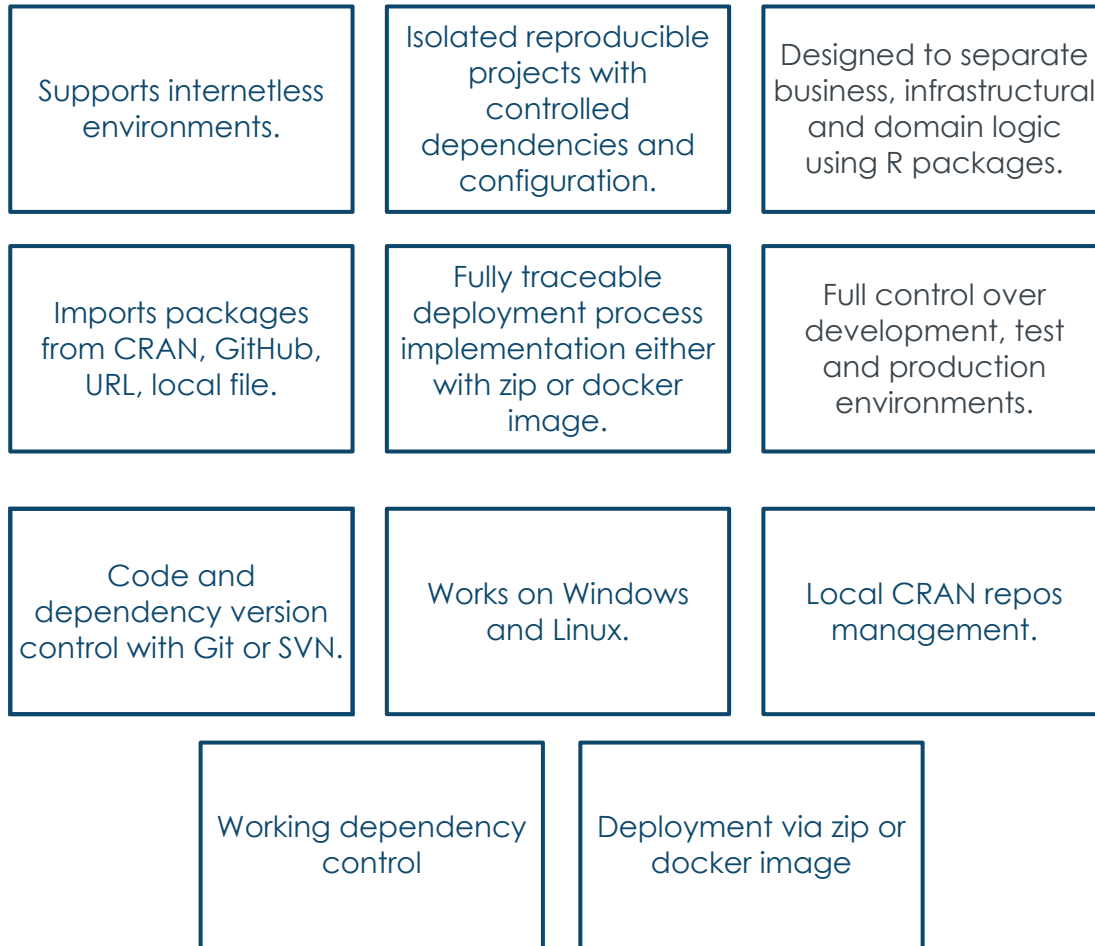
# RSUITE

# Software development process



# R Software development





# 3 ways to manage RSuite project

## 1. Command Line Interface

```
> rsuite proj start -n spmf
```

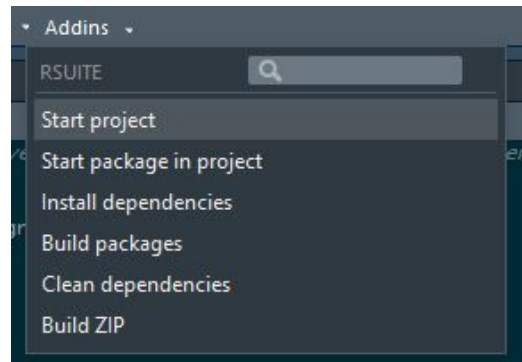
## 2. Using R functions

```
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute this program under the terms of the  
Type 'lic' for details.  
  
R is a console-driven language.  
Type 'con' for details.  
'citation' for citation information.  
  
Type 'demo' for a list of demo files.  
'help.start' for an HTML-ized help system.  
Type 'q()' to quit R.  
  
> RSuite::proj_
```

Function	Package
prj_config_set_repo_adapters	{RSuite}
prj_config_set_rversion	{RSuite}
prj_init	{RSuite}
prj_install_deps	{RSuite}
prj_load	{RSuite}
prj_start	{RSuite}
prj_start_package	{RSuite}
prj_zip	{RSuite}

prj\_start(name = NULL, path =  
Project is not loaded, just created  
Press F1 for additional help

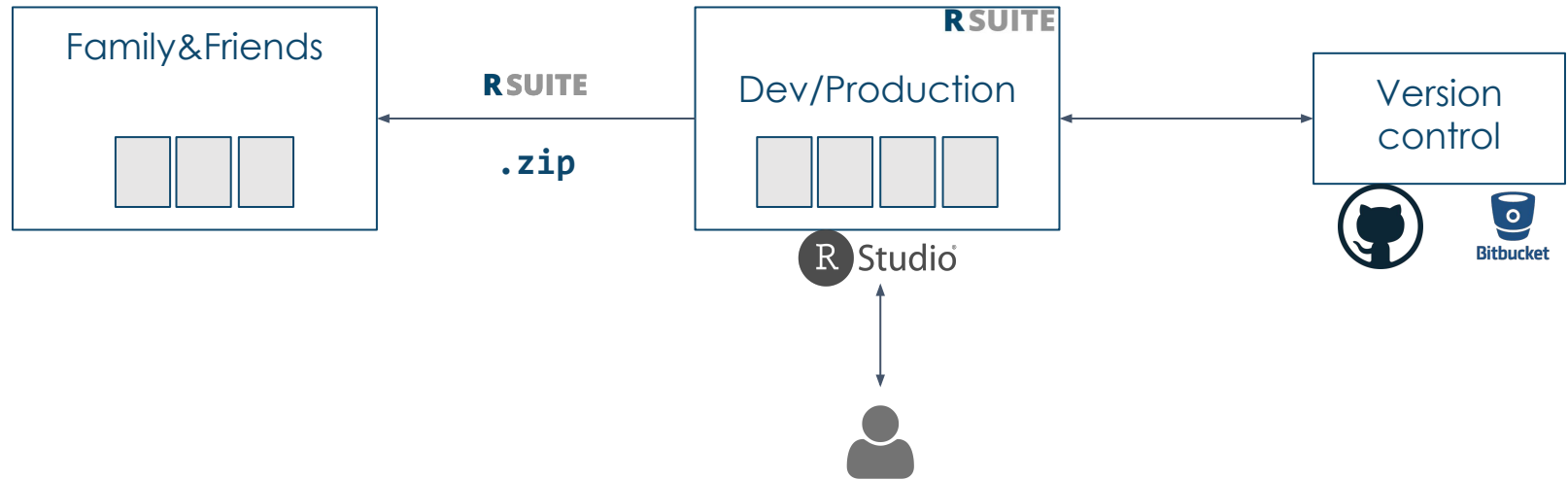
## 3. Using RStudio Add-in



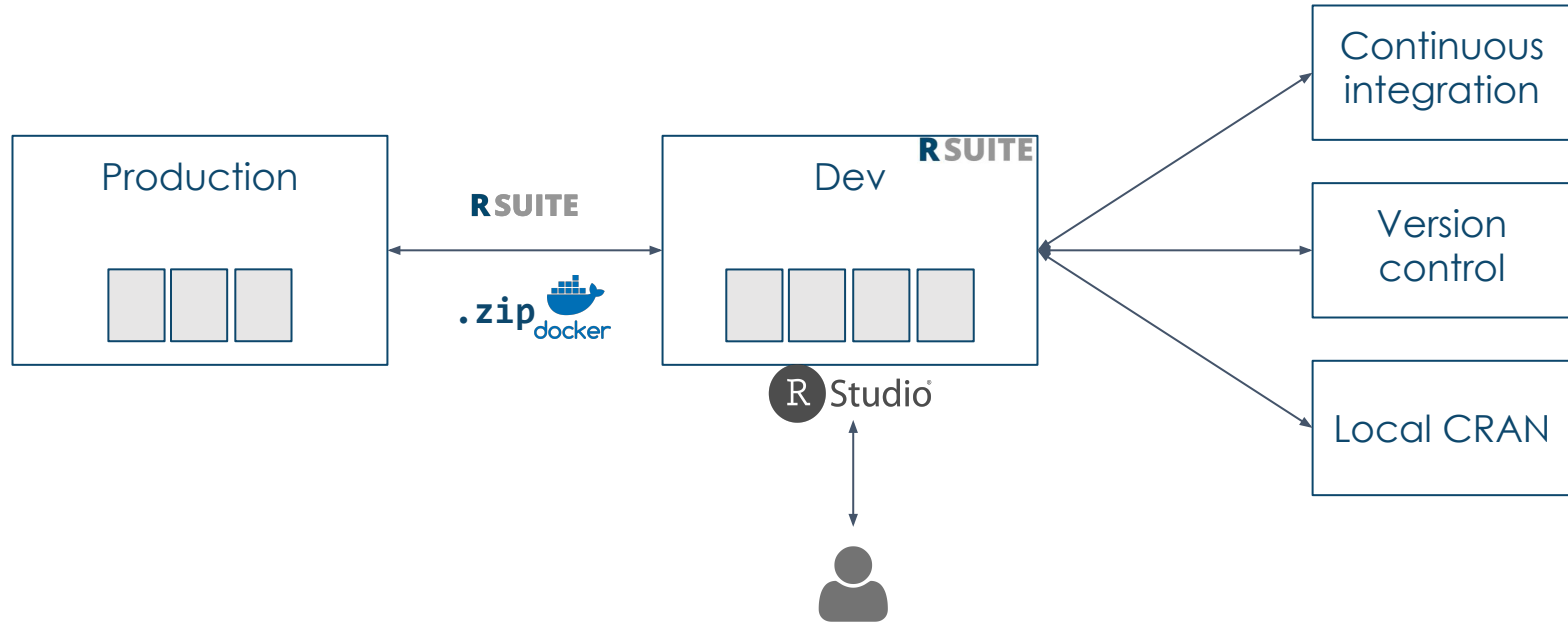


# R Suite - use cases

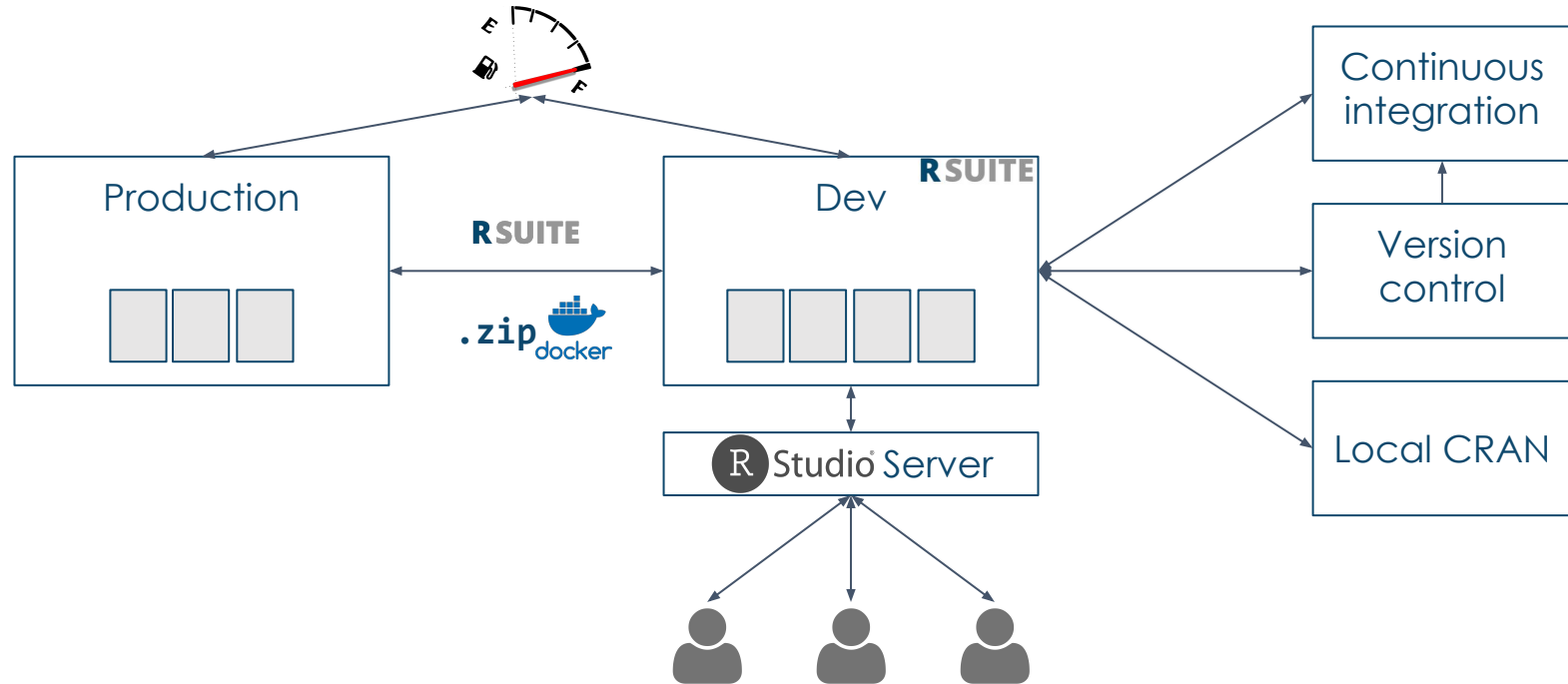
# Beginner



# Consultancy/freelancer/scientist



# Enterprise Data Science Team



# R Suite walkthrough

10 minutes show

# Install R

## R-3.4.2 for Windows (32/64 bit)

[Download R 3.4.2 for Windows](#) (75 megabytes, 32/64 bit)

[Installation and other instructions](#)

[New features in this version](#)

If you want to double-check that the package you have downloaded matches the package distributed by CRAN, you can compare the [md5sum](#) of the .exe to the [fingerprint](#) on the master server. You will need a version of md5sum for windows: both [graphical](#) and [command line versions](#) are available.

### Frequently asked questions

- [Does R run under my version of Windows?](#)
- [How do I update packages in my previous version of R?](#)
- [Should I run 32-bit or 64-bit R?](#)

Please see the [R FAQ](#) for general information about R and the [R Windows FAQ](#) for Windows-specific information.

### Other builds

- Patches to this release are incorporated in the [r-patched snapshot build](#).
- A build of the development version (which will eventually become the next major release of R) is available in the [r-devel snapshot build](#).
- [Previous releases](#)

Note to webmasters: A stable link which will redirect to the current Windows binary release is  
[<CRAN MIRROR>/bin/windows/base/release.htm](#).

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Last change: 2017-09-28, by Duncan Murdoch

<https://cran.r-project.org/bin/windows/base/R-3.4.2-win.exe>

# Install R Suite

**RSUITE**[About](#)[Documentation](#)[Download](#)[Contact](#)

## Download R Suite™ CLI

Download installer for Windows:

[Windows x64](#)[Windows x86](#)

Download installer for Linux:

[Debian/Ubuntu](#)[RedHat/CentOS](#)

**R Suite™ CLI change log**

Expand to see R Suite™ CLI change log



[http://rsuite.io/RSuite\\_Download.php](http://rsuite.io/RSuite_Download.php)

# Start **R Suite** project



# Add package

# Add dependencies to the package

# Add function to the package

# Update master script

# Install dependencies

# Build packages

# Prepare deployment package

# Try it at home



# Tutorials/docs/other

- [R Suite home page](#)
- [R Suite docs](#)
- [R Suite Github repo](#)
- [What is new in R Suite?](#)
- [\*\*Managing large scale machine learning projects with R Suite\*\*](#)



Field tested R ecosystem for Enterprise

<http://rsuite.io>

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