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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

EMBARCADERO TECHNOLOGIES, INC.

Opposer

v.

RSTUDIO, INC.

Applicant.

Opposition No.: 91-193,335

Trademarks: RSTUDIO

Serial Nos.: 77/691,980

77/691,984

77/691,987

OPPOSER'S NOTICE OF RELIANCE

Pursuant to Trademark Rule 2.122(e) Opposer, EMBARCADERO TECHNOLOGIES, INC., ("Embarcadero", or "Opposer"), by its attorneys, hereby gives notice that it will or may rely on the following materials relevant to the issues in the captioned proceeding, copies of which are attached to the Notice. The Notice of Reliance is being submitted at this time pursuant to stipulation by the parties.

1. RStudio Inc.'s current website as of February 28, 2011, attached hereto as Exhibit A to show the manner in which Applicant is using and/or referencing to its RSTUDIO marks.
2. The discovery deposition (including Exhibits) of Joseph J. Allaire, dated September 27, 2010, attached hereto as Exhibit B.
3. Joseph Adler's book "R in a Nutshell", released December 2009, providing an introduction to the R computing language, attached hereto as Exhibit C.
4. The article "RinRuby: Accessing the R Interpreter from Pure Ruby" published in the Journal of Statistical Software dated January 2009, Volume 29, Issue 4, available at: <http://www.jstatsoft.org/v29/i04/paper>, attached hereto as Exhibit D. The article shows the connectivity between the R computing language and the Ruby programming language.

5. The article “Collaborative Software Development Using R-Forge” published in The R Journal dated May 2009, Volume 1, Issue 1, available at:
http://journal.r-project.org/archive/2009-1/2009-1_index.html, attached hereto as Exhibit E. The article reviews the R-Forge platform for development of R-related software.
6. The online article named “Calling Ruby, Perl or Python from R”, dated June 16, 2010 and appearing at: <http://www.r-chart.com/2010/06/if-you-want-to-interact-with-other.html>, attached hereto as Exhibit F. The article discusses the links between the R computing language and other programming languages.
7. The RSRuby webpage, appearing on RubyForge’s website at:
<http://rubyforge.org/projects/rsruby>, attached hereto as Exhibit G and showing the connections between the Ruby programming language and the R computing language.
8. The online page “What is R” appearing on the About Section of R-Project’s website at:
<http://www.r-project.org/about.html>, attached hereto as Exhibit H to provide an explanation of the R computing language and its environment.
9. The Online announcement for Use R! The R User Conference 2010 held July 20-23, 2010 appearing on: <http://user2010.org/>, attached hereto as Exhibit I to show the varied community attending this conference.
10. The Online blog article named “Revolution Analytics targets R language, platform at growing need to handle 'big data' crunching”, dated August 4, 2010 and appearing at:
<http://seekingalpha.com/instablog/122491-dana-gardner/85572-revolution-analytics-targets-r-language-platform-at-growing-need-to-handle-big-data-crunching>, attached hereto as Exhibit J, to show the uses of the R computing language to analyze “big data”.
11. Dictionary definitions of the term “statistics”, from the Merriam-Webster online dictionary, the Free dictionary online and the Wikipedia website attached hereto as

Exhibit K.

12. Portions of Embarcadero's current website as of February 28, 2011, attached hereto as Exhibit L to show the various ER/STUDIO products offered by Opposer.

Dated: February 28, 2011

Respectfully Submitted,

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I hereby certify that a true and correct copy of the foregoing **OPPOSER'S NOTICE OF RELIANCE** is being served on February 28, 2011, by first class mail, postage prepaid on Applicant's Attorney of Record at his address below:

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Exhibit C



R

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R IN A NUTSHELL

Why learn R? Because it's rapidly becoming the standard for developing statistical software. *R in a Nutshell* provides a quick and practical way to learn this increasingly popular open source language and environment. You'll not only learn how to program in R, but also how to find the right user-contributed R packages for statistical modeling, visualization, and bioinformatics.

The author introduces you to the R environment, including the R graphical user interface and console, and takes you through the fundamentals of the object-oriented R language. Then, through a variety of practical examples from medicine, business, and sports, you'll learn how you can use this remarkable tool to solve your own data analysis problems.

- Understand the basics of the language, including the nature of R objects
- Learn how to write R functions and build your own packages
- Work with data through visualization, statistical analysis, and other methods
- Explore the wealth of packages contributed by the R community
- Become familiar with the lattice graphics package for high-level data visualization
- Learn about bioinformatics packages provided by Bioconductor

"I am excited about this book. R in a Nutshell is a great introduction to R, as well as a comprehensive reference for using R in data analytics and visualization. Adler provides 'real world' examples, practical advice, and scripts, making it accessible to anyone working with data, not just professional statisticians."

—Martin Schultz
Arthur K. Watson Professor of
Computer Science, Yale University

"This book is invaluable whether you need to learn what R is and what it can do, or whether you're a longtime R user looking for new tips and tricks."

—David M. Smith
Editor of the "Revolutions" blog
at REvolution Computing

Joseph Adler has worked on data mining and analysis in financial services, Internet security, and bioinformatics. He is the author of *Baseball Hacks* (O'Reilly).

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Exhibit D



Journal of Statistical Software

January 2009, Volume 29, Issue 4.

<http://www.jstatsoft.org/>

RinRuby: Accessing the R Interpreter from Pure Ruby

David B. Dahl
Texas A&M University

Scott Crawford
Texas A&M University

Abstract

RinRuby is a Ruby library that integrates the R interpreter in Ruby, making R's statistical routines and graphics available within Ruby. The library consists of a single Ruby script that is simple to install and does not require any special compilation or installation of R. Since the library is 100% pure Ruby, it works on a variety of operating systems, Ruby implementations, and versions of R. **RinRuby**'s methods are simple, making for readable code. This paper describes **RinRuby** usage, provides comprehensive documentation, gives several examples, and discusses **RinRuby**'s implementation. The latest version of **RinRuby** can be found at the project website: <http://rinruby.ddahl.org/>.

Keywords: R, Ruby, JRuby, Java, **RinRuby**.

1. Introduction

Scripting languages such as Ruby, Python, Perl, and PHP are increasingly popular since they can greatly decrease development time compared to traditional languages, such as C, C++, and Java. Although many variations exist, scripting languages are high-level programming languages that typically avoid explicit type declarations, interpret or compile code at runtime, and focus on simplicity and productivity rather than raw execution speed. Scripting languages have been particularly successful in tasks such as data extraction, web development, prototyping, report generation, and combining existing software to accomplish a task.

Ruby is a dynamic scripting language “with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to write” (Flanagan and Matsumoto 2008). Ruby supports features such as pure object orientation, closures, and mix-ins. Several implementations are available, the most mature being the reference C implementation, JRuby (which runs on the Java Virtual Machine), IronRuby (which runs on the .NET Framework), and Rubinius (an alternative implementation written in Ruby and C). Unfortunately statistical

analysis routines and graphing abilities are quite limited in Ruby.

R is a scripting language and environment developed by statisticians for statistical computing and graphics with a large library of routines (R Development Core Team 2008). R has many contributors and a large user base which increases confidence in the correctness of the implementation. The graphing abilities of R are excellent.

This paper describes the **RinRuby** software, a 100% pure Ruby library that provides a simple but effective bridge to R from Ruby. Being 100% pure Ruby, **RinRuby** does not need to be recompiled with each incremental release of R and Ruby. It allows a statistician to leverage R's familiar and comprehensive statistical computing and graphics abilities in the powerful Ruby scripting language. (Note that **RinRuby** does not provide access *to Ruby from R*.)

RinRuby's design allows R to be accessed from Ruby on any implementation of Ruby using a standard installation of R on any operating system capable of running R and Ruby (including Linux, Mac OS X, and Microsoft Windows). This means there is no need to install Ruby or R with special options. Using **RinRuby** in JRuby, for example, allows for seamless integration of Ruby, Java, and R code in one application.

The paper is organized as follows. Section 2 introduces **RinRuby** basics, including installation and typical usage. An example using the Gettysburg Address is given in Section 3. Section 4 discusses approaches to making R accessible in a scripting language and details the technique used by **RinRuby**. Comprehensive documentation is provided in Section 5, while Section 6 discusses a few caveats related to **RinRuby** usage. The appendix contains two examples: our **RinRuby** translation of Tim Churches' demonstration of **RPy** (a similar program that makes R accessible within Python, see Moreira and Warnes 2008) and an example involving simple linear regression. The scripts for all the examples are available online along with the paper.

2. Using RinRuby

2.1. Installation

A prerequisite for **RinRuby** is a working installation of R, but no special compilation flags, installation procedures, or packages are needed for R. If using the RubyGems system, **RinRuby** can be installed by simply executing the following at the operating system's shell prompt (denoted \$):

```
$ gem install rinruby
```

This will download and install the latest version of **RinRuby** from RubyForge (<http://rubyforge.org/>), an archive of Ruby extensions analogous to the Comprehensive R Archive Network for R. The equivalent call for JRuby is:

```
$ jruby -S gem install rinruby
```

If RubyGems is not available, the latest version of the `rinruby.rb` script can be downloaded from the **RinRuby** webpage (<http://rinruby.ddahl.org/>) and placed in a directory in Ruby's search path (as given by the array \$:).

2.2. Executing R commands

Regardless of the installation method, **RinRuby** is invoked within a Ruby script (or the interactive "irb" prompt, denoted >>) using:

```
>> require "rinruby"
```

The previous statement reads the definition of the **RinRuby** class into the current Ruby interpreter and creates an instance of the **RinRuby** class named R. The `eval` instance method passes R commands (contained in the supplied string) and prints the output or displays any resulting plots. For example:

```
>> sample_size = 10
>> R.eval "x <- rnorm(#{sample_size})"
>> R.eval "summary(x)"
>> R.eval "sd(x)"
```

produces the following:

```
      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
-1.88900 -0.84930 -0.45220 -0.49290 -0.06069  0.78160
```

```
[1] 0.7327981
```

This example uses a string substitution to make the argument of the first `eval` method equivalent to `x <- rnorm(10)`. The example uses three invocations of the `eval` method, but a single invoke is possible using a here document:

```
>> sample_size = 10
>> R.eval <<EOF
      x <- rnorm(#{sample_size})
      summary(x)
      sd(x)
EOF
```

2.3. Pulling data from R to Ruby

Data is copied from R to Ruby using the `pull` method or a short-hand equivalent. The R object `x` defined previously can be copied to the Ruby object `copy_of_x` as follows:

```
>> copy_of_x = R.pull "x"
>> puts copy_of_x
```

which produces the following: (note only the first and last lines are shown)

```
-0.376404489256671
:
0.781602719849499
```

RinRuby also supports a convenient short-hand notation when the argument to `pull` is simply a previously-defined R variable (whose name conforms to Ruby's requirements for method names). For example:

```
>> copy_of_x = R.x
```

The explicit `pull` method, however, can take an arbitrary R statement. For example:

```
>> summary_of_x = R.pull "as.numeric(summary(x))"
>> puts summary_of_x
```

produces the following :

```
-1.889
-0.8493
-0.4522
-0.4929
-0.06069
0.7816
```

Notice the use above of the `as.numeric` function in R. This is necessary since the `pull` method only supports R vectors which are `numeric` (i.e., integers or doubles) or `character` (i.e., strings). Data in other formats must be coerced when copying to Ruby.

2.4. Assigning data from Ruby to R

Data is copied from Ruby to R using the `assign` method or a short-hand equivalent. For example:

```
>> names = ["Lisa", "Teasha", "Aaron", "Thomas"]
>> R.assign "people", names
>> R.eval "sort(people)"
```

produces the following :

```
[1] "Aaron" "Lisa" "Teasha" "Thomas"
```

The short-hand equivalent to the `assign` method is simply:

```
>> R.people = names
```

As with the short-hand notation for `pull`, some care is needed when using the short-hand of the `assign` method since the label (i.e., `people` in this case) must be a valid method name in Ruby. For example, `R.copy.of.names = names` will not work, but `R.copy_of_names = names` is permissible.

The `assign` method supports Ruby variables of type `Fixnum` (i.e., integer), `Bignum` (i.e. integer), `Float` (i.e., double), `String`, and arrays of one of those four fundamental types. Data in other formats must be coerced when copying to R. Note that `Fixnum` or `Bignum` values that

exceed the capacity of R's integers are silently converted to doubles. Data in other formats must be coerced when copying to R.

When assigning an array containing differing types of variables, **RinRuby** will follow R's conversion conventions. An array that contains any **Strings** will result in a character vector in R. If the array does not contain any **Strings**, but it does contain a **Float** or a large **Integer** (in absolute value), then the result will be a numeric vector of **Doubles** in R. If there are only **Integers** that are sufficiently small (in absolute value), then the result will be a numeric vector of **Integers** in R.

3. Demonstration using the Gettysburg Address

The `eval`, `assign`, and `pull` methods are demonstrated in an example using Lincoln's Gettysburg Address. The code is in Table 1 and the output is in Table 2. Two more extensive examples are given in the Appendix.

Ruby code counts the number of occurrences of each word in the Gettysburg Address and filters out the words occurring less than three times or shorter than four letters. R code—through the **RinRuby** library—produces a bar plot of the most frequent words and computes the correlation between the length of a word and the usage frequency. Finally, the correlation is printed by Ruby.

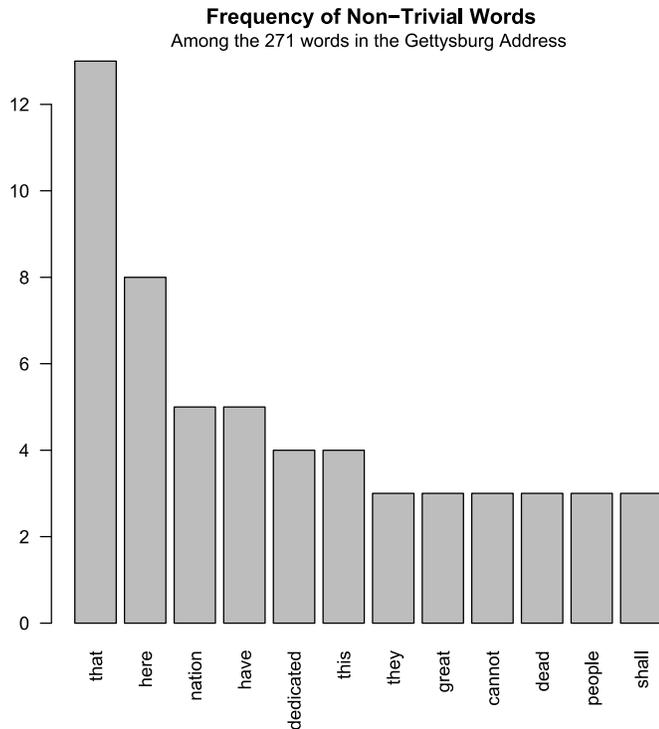
```
tally = Hash.new(0)
File.open('gettysburg.txt').each_line do |line|
  line.downcase.split(/\W+/).each { |w| tally[w] += 1 }
end
total = tally.values.inject { |sum, count| sum + count }
tally.delete_if { |key, count| count < 3 || key.length < 4 }

require "rinruby"
R.keys, R.counts = tally.keys, tally.values

R.eval <<EOF
  names(counts) <- keys
  barplot(rev(sort(counts)), main = "Frequency of Non-Trivial Words", las = 2)
  mtext("Among the #{total} words in the Gettysburg Address", 3, 0.45)
  rho <- round(cor(nchar(keys), counts), 4)
EOF

puts "The correlation between length and frequency of words is #{R.rho}."
```

Table 1: Demonstration of **RinRuby** using Lincoln's Gettysburg Address.



The correlation between length and frequency of words is -0.2779 .

Table 2: Output from the Gettysburg example.

4. Techniques to access R

4.1. Techniques used by existing software

In this section, we review several approaches which could embed R in a scripting language and we discuss the approach used by **RinRuby**. Perhaps the most obvious way to use R in a Ruby script is to: (1) Generate an R script using Ruby code, (2) Run the R script in batch mode using Ruby's `system` method, and (3) Retrieve computations by parsing the resulting `Rout` file in Ruby. This method is simple in principle but has at least two deficiencies. First, passing results and data can require a fair amount of problem-specific coding. The **RRb** (Nakao 2003) package attempts to ease this difficulty, but currently it is only available for Linux. The second problem is that each new computation in R requires starting a new instance of the R interpreter.

Another approach is to write a native-language (i.e., C) extension for Ruby that dynamically links to R's shared library. This is the approach taken by **RSRuby** (Gutteridge 2008) for Ruby, **RSPerl** (Temple Lang 2007) for Perl, and **RPy** (Moreira and Warnes 2008) for Python. **RSRuby** is making rapid progress towards seamless integration of Ruby and R and provides

very fast data access. The disadvantage comes in the fact that the extension is closely tied to a particular operating system, Ruby implementation, and version of R. For example, users must compile **RSRuby** themselves or wait for maintainers to provide binaries for recently released versions of R and Ruby. Further, **RSRuby** is currently not available for Windows. Lastly, the extension is tied to the particular implementation of the Ruby language and is only a proof-of-concept for alternative implementations of the Ruby language (e.g., JRuby, IronRuby, and Rubinius).

Another approach to using R within Ruby is the client/server model over TCP/IP sockets. **RServe** (Urbanek 2008) uses this method, where R runs as the server for a client application. This approach is quite efficient and very robust across different systems, platforms, and versions. Unfortunately only Java and C++ clients are currently implemented; there is no Ruby implementation.

4.2. Technique used by RinRuby

RinRuby makes use of pipes and TCP/IP sockets to implement its functionality. When the **RinRuby** module is loaded via the `require "rinruby"` statement, **RinRuby** opens an operating system pipe to the R interpreter running on the same machine using Ruby's `IO.popen` method. The pipe stays open until the `quit` method is called or Ruby exits. When **RinRuby**'s `eval` method is called, the statement is passed to R through this pipe. Additionally, another statement is passed to R that prints a flag signaling that R is done executing. **RinRuby** prints all the results from the pipe using Ruby's `puts` method until it sees this signal, at which point the `eval` method returns.

RinRuby passes data between Ruby and R using TCP/IP sockets on the localhost. Ruby acts as the server and R acts as the client. Like the pipe, the socket connection stays open until calling `quit` or exiting Ruby. When pulling data from R to Ruby, **RinRuby** writes R statements to the pipe that causes R to send the data over the socket. Likewise, assigning data from Ruby to R involves sending R statements through the pipe to receive the data. Passing data via sockets instead of the pipe enables **RinRuby** to handle large amounts of data quickly. It also avoids rounding issues inherent when converting decimals to text and back to decimals again. Since all the R code needed to implement **RinRuby**'s functionality is sent via the pipe, there is no need to install any **RinRuby**-specific packages in R.

5. Comprehensive documentation

5.1. Instantiating a RinRuby object

RinRuby is invoked within a Ruby script (or the interactive “`irb`” prompt denoted `>>`) using:

```
>> require "rinruby"
```

This reads the definition of the **RinRuby** class into the current Ruby interpreter and creates an instance of the **RinRuby** class named `R`. An instance of the **RinRuby** class can also be created using the `new` constructor. For example:

```
>> require "rinruby"
```

```
>> myr = RinRuby.new
>> myr.eval "rnorm(1)"
```

Any number of independent instances of R can be created in this way.

The following parameters can be passed to the constructor:

```
RinRuby.new(echo = true, interactive = true, executable = nil,
            port_number = 38442, port_width = 1000)
```

- **echo**: By setting the `echo` to `false`, output from R is suppressed, although warnings may still print. This option can be changed later by using the `echo` method which is explained below. The default is `true`.
- **interactive**: When `interactive` is `false`, R is run in non-interactive mode, resulting in plots without an explicit device being written to `Rplots.pdf`. Otherwise, when `interactive` is `true`, such plots are shown on the screen. The default is `true`.
- **executable**: The path of the R executable (which is `R` in Linux and Mac OS X, or `Rterm.exe` in Windows) can be set with the `executable` argument. The default is `nil` which makes **RinRuby** use the registry keys to find the path (on Windows) or use the path defined by `$PATH` (on Linux and Mac OS X).
- **port_number**: This is the smallest port number on the local host that could be used to pass data between Ruby and R. The actual port number used depends on `port_width` described below.
- **port_width**: **RinRuby** will randomly select a uniform number between `port_number` and `port_number + port_width - 1` (inclusive) to pass data between Ruby and R. If the randomly selected port is not available, **RinRuby** will continue selecting random ports until it finds one that is available. By setting `port_width` to 1, **RinRuby** will wait until `port_number` is available. The default `port_width` is 1000.

It may be desirable to change the parameters to the instance of R, but still name the object `R`. In that case the old instance of R which was created with the `require "rinruby"` statement should be closed first using the `quit` method which is explained below. Unless the previous instance is killed, it will continue to use system resources until exiting Ruby. The following shows an example that explicitly sets the `echo` argument:

```
>> require "rinruby"
>> R.quit
>> R = RinRuby.new(false)
```

5.2. The “echo” method

The `echo` method controls whether the `eval` method displays output and warnings from R. The `echo` method has two parameters:

```
echo(enable = nil, stderr = nil)
```

- **enable**: Setting `enable` to `false` will turn all output off until the `echo` method is used again with `enable` equal to `true`. The default is `nil`, which will return the current setting.
- **stderr**: Setting `stderr` to `true` will force messages, warnings, and errors from R to be routed through `stdout`. Using `stderr` redirection is typically not needed for the C implementation of Ruby and is thus not enabled by default for this implementation. It is typically necessary for JRuby and is enabled by default in this case. This redirection works well in practice but it can lead to interleaving output which may confuse **RinRuby**. In such cases, `stderr` redirection should not be used. Echoing must be enabled when using `stderr` redirection.

5.3. The “eval” method

The `eval` method is used to send commands to the R instance. The method has two parameters:

```
eval(string, echo_override = nil)
```

- **string**: The `string` parameter is the code which is to be passed to R, for example, `"hist(gamma(1000,5,3))"`. The `string` can contain many lines by use of a here document. For example:

```
R.eval <<EOF
  x <- rgamma(1000, 5, 3)
  hist(x)
EOF
```

- **echo_override**: This argument allows one to set the echo behavior for this call only. The default for `echo_override` is `nil`, which does not override the current echo behavior.

The return value of the `eval` method is `true` unless the statement could not be parsed as a valid R expression. In this case, an exception is raised. See Section 6 for examples of code that would raise an exception from the `eval` method.

5.4. The “assign” method

The `assign` method is used to send data from Ruby to R and has three parameters:

```
assign(name, value, as_integer = false)
```

- **name**: The name of the R variable.
- **value**: The value the R variable should have. The `assign` method supports Ruby variables of type `Fixnum` (i.e., integer), `Bignum` (i.e., integer), `Float` (i.e., double), `String`, and arrays of one of those three fundamental types. Note that `Fixnum` or `Bignum` values that exceed the capacity of R’s integers are silently converted to doubles. Data in other formats must be coerced when copying to R.

The `assign` method is an alternative to the simplified method, with some additional flexibility. When using the simplified method, the parameters of `name` and `value` are automatically used. For example, the code:

```
>> R.test = 144
```

is the same as:

```
>> R.assign("test", 144)
```

The shorthand notation cannot be used to assign a variable named `eval`, `echo`, or another already used method name. **RinRuby** would assume the method was being called, rather than assigning a variable.

When assigning an array containing differing types of variables, **RinRuby** will follow R's conversion conventions. An array that contains any **Strings** will result in a character vector in R. If the array does not contain any **Strings**, but it does contain a **Float** or a large integer (in absolute value), then the result will be a numeric vector of **Doubles** in R. If there are only integers that are sufficiently small (in absolute value), then the result will be a numeric vector of integers in R.

5.5. The “pull” method

The `pull` method is used to pass data from R into Ruby. There are two parameters for the `pull` method:

```
pull(string, singletons = false)
```

- **string**: The name of the variable that should be pulled from R. The `pull` method only supports R vectors which are **numeric** (i.e., integers or doubles) or **character** (i.e., strings). The R value of `NA` is pulled as `nil` into Ruby. Data in other formats must be coerced when copying to Ruby.
- **singletons**: R represents a single number as a vector of length one, but in Ruby it is often more convenient to use a number rather than an array of length one. Setting `singletons = false` will cause the `pull` method to shed the array, while `singletons = true` will return the number or string within an array. The default is `false`.

The `pull` method is an alternative to the simplified form where the parameters are automatically used. For example, the code:

```
>> puts R.test
```

is the same as:

```
>> puts R.pull("test")
```

As is the case with the `assign` method, the shorthand notation cannot be used on a variable which shares a name with another method.

5.6. The “prompt” method

When sending code to Ruby using an interactive prompt (i.e., `"irb"`), this method will change the Ruby prompt to an R prompt. From the R prompt, commands can be sent to R as if R were run natively. When the user is ready to return to Ruby, then `exit()` will return the prompt to Ruby. The `prompt` method is useful when exploring with several lines of code since results are displayed immediately. It should be noted that the `prompt` command does not work in a script, just Ruby’s interactive `irb`.

The `prompt` command has two parameters:

```
prompt(regular_prompt = "> ", continue_prompt = "+ ")
```

- `regular_prompt`: This defines the string used to denote the R prompt.
- `continue_prompt`: This is the string used to denote R’s prompt for an incomplete statement (such as a multiple line loop).

5.7. The “quit” method

The `quit` method will properly close the bridge between Ruby and R, freeing up system resources. This method does not need to be run when a Ruby script ends. There are no parameters in the `quit` method.

6. Caveats

The `assign` method supports Ruby variables and arrays of type `Fixnum`, `Bignum`, `Float`, or `String`, while the `pull` method supports R vectors which are `numeric` or `character`. There is no technical limitation prohibiting pulling or assigning other data types, and we encourage contributions to extend the data types supported by **RinRuby**.

We recommend using **RinRuby** on R version 2.7.0 or higher, which provides the `--interactive` command line argument for Linux and Mac OS X. If a user has version 2.6.2 or earlier, then the plots will not show up on the screen as usual. A warning will appear saying, `"unknown option '--interactive'"` and plots will be saved to the `Rplots.ps` file. R commands sent by **RinRuby**’s `eval` method should be complete expressions. If R cannot parse the command as a complete expression, the `eval` method will raise an exception. For example:

```
>> R.eval "paste('answer, x)'"
```

will raise an exception indicating a parse error. Another manifestation of the same problem is in the following code:

```
>> R.x = 2
>> R.eval "for (i in 1:10) {"
>> R.eval "  x <- x + 1"
>> R.eval "}"
```

The code will raise an exception for each of three statements in the `for` loop since none of them can be considered a complete expression alone. There are two ways to avoid this issue. One way is to use the `prompt` method while running Ruby interactively. The other way is to use a here document, as shown:

```
>> R.x = 2
>> R.eval <<EOF
  for(i in 1:10){
    x <- x + 1
  }
EOF
```

Acknowledgments

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References

- Flanagan D, Matsumoto Y (2008). *The Ruby Programming Language*. O'Reilly Media, Inc. ISBN 10: 0-596-51617-7, URL <http://www.ruby-lang.org/>.
- Gutteridge A (2008). “**RSRuby**: A Bridge Between Ruby and the R Interpreted Language.” Ruby package version 0.5.1, URL <http://rubyforge.org/projects/rsruby/>.
- Moreira W, Warnes GR (2008). “**RPy**: A Simple and Efficient Access to R from Python.” Version 1.0.3, URL <http://rpy.sourceforge.net/>.
- Nakao MC (2003). “**RRb**: A Very Simple Ruby Interface to the R Statistical Computing Language.” URL <http://sourceforge.net/projects/rrb/>.
- R Development Core Team (2008). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL <http://www.R-project.org>.
- Temple Lang D (2007). “**RSPerl**: The R/S-PLUS-Perl Interface.” R package version 0.92-1, URL <http://www.omegahat.org/RSPerl/>.
- Urbanek S (2008). *Rserve: Binary R Server*. R package version 0.5-2, URL <http://CRAN.R-project.org/package=Rserve>.

A. RinRuby implementation of an example from Tim Churches

Here we provide a side-by-side comparison of Tim Churches' demonstration of **RPy** for Python (http://rpy.sourceforge.net/rpy_demo.html) and our implementation using **RinRuby** for Ruby. The code in Tables 3 and 4 analyzes data on the Old Faithful geyser in Yellowstone National Park. The code illustrates the ease and power of **RinRuby** as well as its methods. The output from both scripts is the same, except that **RinRuby** maintains the order of the summary statistics while **RPy** changes the order. The output shown in Table 5 is from **RinRuby** as is Figure 1.

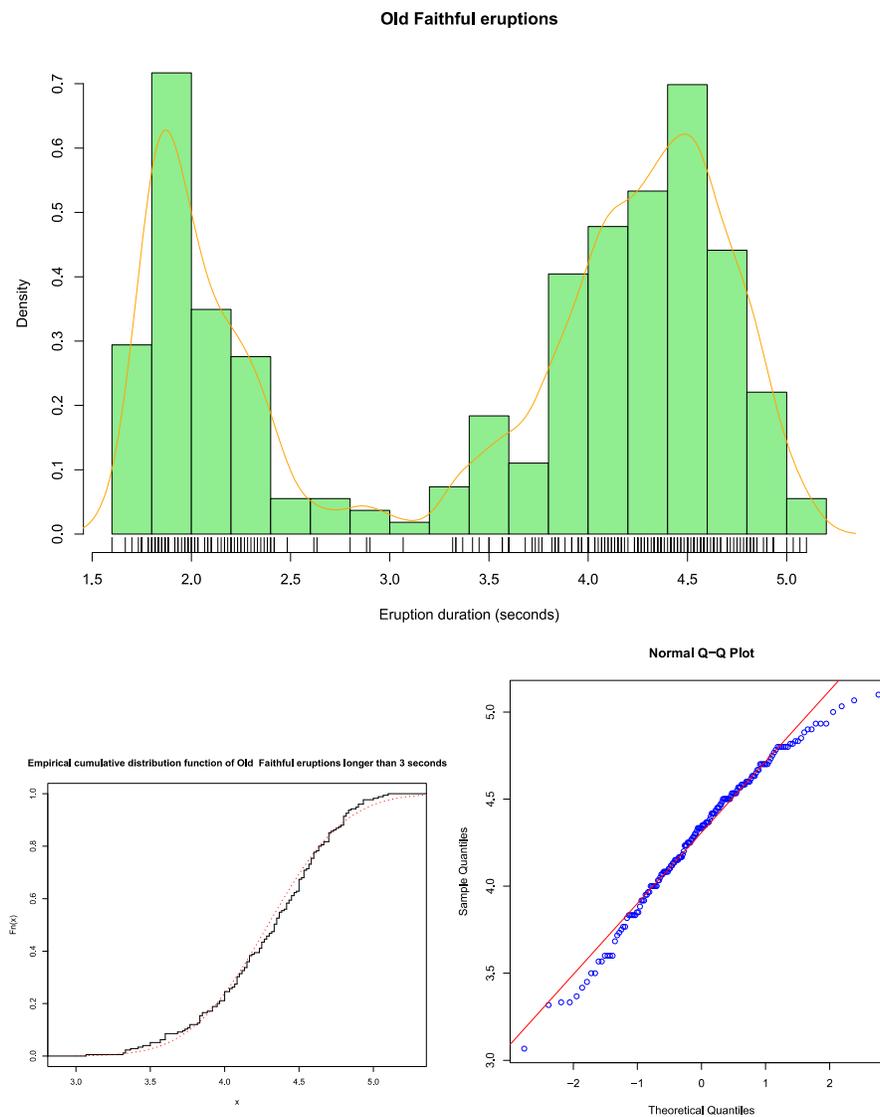


Figure 1: Plots from the Tim Churches example.

```

require "rinruby"

faithful_data = {"eruption_duration"=>[], "waiting_time"=>[]}

for row in File.readlines('faithful.dat')[1..-1]
  splittrow = row.chomp.split
  faithful_data["eruption_duration"] << splittrow[0].to_f
  faithful_data["waiting_time"] << splittrow[1].to_f
end

R.ed = faithful_data["eruption_duration"]
R.eval "edsummary <- summary(ed)"
edsummary = R.pull("as.vector(edsummary)")
keys = R.pull("names(edsummary)")
puts "Summary of Old Faithful eruption duration data"
keys.each_index do |i|
  puts "#{keys[i]}:#{sprintf("%.3f", edsummary[i])}"
end
puts
puts "Stem-and-leaf plot of Old Faithful eruption duration data"
R.eval "stem(ed)"

R.eval <<EOF
png('faithful_histogram.png', width=10,height=7.5)
hist(ed, seq(1.6, 5.2, 0.2), prob = 1,col = "lightgreen",
  main = "Old Faithful eruptions", xlab = "Eruption duration (seconds)")
lines(density(ed, bw = 0.1), col = "orange")
rug(ed)
dev.off()
EOF

from rpy import *

faithful_data = {"eruption_duration": [],
  "waiting_time": []}

f = open('faithful.dat', 'r')

for row in f.readlines()[1:]: # skip the column header line
  splittrow = row[:-1].split(" ")
  faithful_data["eruption_duration"].append(float(splittrow[0]))
  faithful_data["waiting_time"].append(int(splittrow[1]))

f.close()

ed = faithful_data["eruption_duration"]
edsummary = r.summary(ed)
print "Summary of Old Faithful eruption duration data"
for k in edsummary.keys():
  print k + " : %.3f" % edsummary[k]
print
print "Stem-and-leaf plot of Old Faithful eruption duration data"
print r.stem(ed)

r.png('faithful_histogram.png', width=733, height=650)
r.hist(ed, r.seq(1.6, 5.2, 0.2), prob = 1,col = "lightgreen",
  main = "Old Faithful eruptions", xlab = "Eruption duration (seconds)")
r.lines(r.density(ed, bw = 0.1), col = "orange")
r.rug(ed)
r.dev.off()

```

Table 3: Ruby (left) and Python (right) code for the Tim Churches' example.

```

cutoff = 3
R.long_ed = R.ed.delete_if{|x| x <= cutoff }
R.eval <<EOF
png('faithful_ecdf.png', width = 10, height = 7.5)
# library(stepfun)
# package has been merged into 'stats'
plot(ecdf(long_ed), do.points=0, verticals = 1,
     main = paste("Empirical cumulative distribution function of Old",
                  " Faithful eruptions longer than #{cutoff} seconds"))
x <- seq(3, 5.4, 0.01)
lines(seq(3, 5.4, 0.01), pnorm(seq(3, 5.4, 0.01),
                               mean = mean(long_ed), sd = sqrt(var(long_ed))), lty = 3,
      lwd = 2, col = "red")
dev.off()

png('faithful_qq.png', width = 10, height = 7.5)
par(pty = "s")
qqnorm(long_ed,col = "blue")
qqline(long_ed,col = "red")
dev.off()
EOF

# R.eval "library('ctest')" # package has been merged into 'stats'
puts
puts "Shapiro-Wilks normality test of Old Faithful eruptions" +
     " longer than #{cutoff} seconds"
R.eval "sw <- shapiro.test(long_ed)"
puts "W = #{sprintf("%.4f", R.pull("sw$statistic"))}"
puts "p-value = #{sprintf("%.5f", R.pull("sw$p.value"))}"

puts
puts "One-sample Kolmogorov-Smirnov test of Old Faithful eruptions" +
     " longer than #{cutoff} seconds"
R.eval "ks <- ks.test(long_ed, 'pnorm', mean=mean(long_ed), " +
      "sd = sqrt(var(long_ed)))"
puts "D = #{sprintf("%.4f", R.pull("ks$statistic"))}"
puts "p-value = #{sprintf("%.4f", R.pull("ks$p.value"))}"
puts "Alternative hypothesis: #{R.pull("ks$alternative")}"
puts

long_ed = filter(lambda x: x > 3, ed)
r.png('faithful_ecdf.png', width = 733, height = 550)
r.library('stepfun')
r.plot(r.ecdf(long_ed), do.points = 0, verticals = 1, col = "blue",
       main = paste("Empirical cumulative distribution function",
                    " of Old Faithful eruptions longer than 3 seconds"))
x = r.seq(3, 5.4, 0.01)
r.lines(r.seq(3, 5.4, 0.01), r.pnorm(r.seq(3, 5.4, 0.01),
                                   mean = r.mean(long_ed), sd = r.sqrt(r.var(long_ed))), lty = 3,
      lwd = 2, col = "red")
r.dev_off()

r.png('faithful_qq.png', width = 733, height = 550)
r.par(pty = "s")
r.qqnorm(long_ed,col = "blue")
r.qqline(long_ed,col = "red")
r.dev_off()

r.library('ctest')
print
print("Shapiro-Wilks normality test of Old Faithful eruptions" +
     " longer than 3 seconds")
sw = r.shapiro_test(long_ed)
print "W = %.4f" % sw['statistic']['W']
print "p-value = %.5f" % sw['p.value']

print
print("One-sample Kolmogorov-Smirnov test of Old Faithful eruptions" +
     " longer than 3 seconds")
ks = r.ks_test(long_ed, "pnorm", mean = r.mean(long_ed),
              sd = r.sqrt(r.var(long_ed)))
print "D = %.4f" % ks['statistic']['D']
print "p-value = %.4f" % ks['p.value']
print "Alternative hypothesis: %s" % ks['alternative']
print

```

Table 4: Ruby (left) and Python (right) code for the Tim Churches' example.

Summary of Old Faithful eruption duration data

Min.: 1.600
 1st Qu.: 2.163
 Median: 4.000
 Mean: 3.488
 3rd Qu.: 4.454
 Max.: 5.100

Stem-and-leaf plot of Old Faithful eruption duration data

The decimal point is 1 digit(s) to the left of the |

```

16 | 070355555588
18 | 000022233333335577777777888822335777888
20 | 00002223378800035778
22 | 0002335578023578
24 | 00228
26 | 23
28 | 080
30 | 7
32 | 2337
34 | 250077
36 | 0000823577
38 | 2333335582225577
40 | 0000003357788888002233555577778
42 | 03335555778800233333555577778
44 | 02222335557780000000023333357778888
46 | 0000233357700000023578
48 | 00000022335800333
50 | 0370

```

Shapiro-Wilks normality test of Old Faithful eruptions longer than 3 seconds

W = 0.9793

p-value = 0.01052

One-sample Kolmogorov-Smirnov test of Old Faithful eruptions longer than
 3 seconds

D = 0.0661

p-value = 0.4284

Alternative hypothesis: two-sided

Table 5: Output from the Tim Churches' example.

B. A simple linear regression example

As another example of **RinRuby** usage, Table 6 shows the usage of **RinRuby** for simple linear regression. The simulation parameters are defined in **Ruby**, computations are performed in **R**, and **Ruby** reports the results. In a more elaborate application, the simulation parameter could be input from a graphical user interface, the statistical analysis might be more involved, and the results could be an HTML page or PDF report.

```
require "rinruby"

n = 10
beta_0 = 1
beta_1 = 0.25
alpha = 0.05
seed = 23423

R.x = (1..n).entries
R.eval <<EOF
  set.seed(#{seed})
  y <- #{beta_0} + #{beta_1}*x + rnorm(#{n})
  fit <- lm( y ~ x )
  est <- round(coef(fit),3)
  pvalue <- summary(fit)$coefficients[2, 4]
EOF

puts "E(y|x) ~ = #{R.est[0]} + #{R.est[1]} * x"
if R.pvalue < alpha
  puts "Reject the null hypothesis and conclude that x and y are related."
else
  puts "There is insufficient evidence to conclude that x and y are related."
end
\end{verbatim}
%\vspace{4ex}
```

$E(y|x) \sim = 1.264 + 0.273 * x$
 Reject the null hypothesis and conclude that x and y are related.

Table 6: Demonstration of **RinRuby** for regression.

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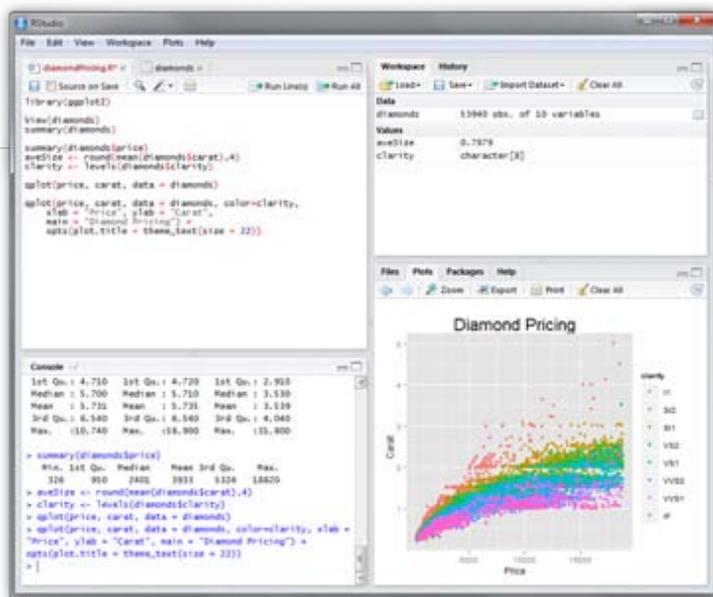
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Exhibit A



Introducing RStudio

RStudio™ is a new integrated development environment (IDE) for R. RStudio combines an intuitive user interface with powerful coding tools to help you get the most out of R.



Productive

RStudio brings together everything you need to be productive with R in a single, customizable environment. Its intuitive interface and [powerful coding tools](#) help you get work done faster.

Runs Everywhere

RStudio is available for [all major platforms](#) including Windows, Mac OS X, and Linux. It can even run alongside R on a server, enabling multiple users to access the RStudio IDE using a web browser.

Free & Open

Like R, RStudio is available under an [open source license](#) that guarantees the freedom to share and change the software, and to make sure it remains free software for all its users.



News

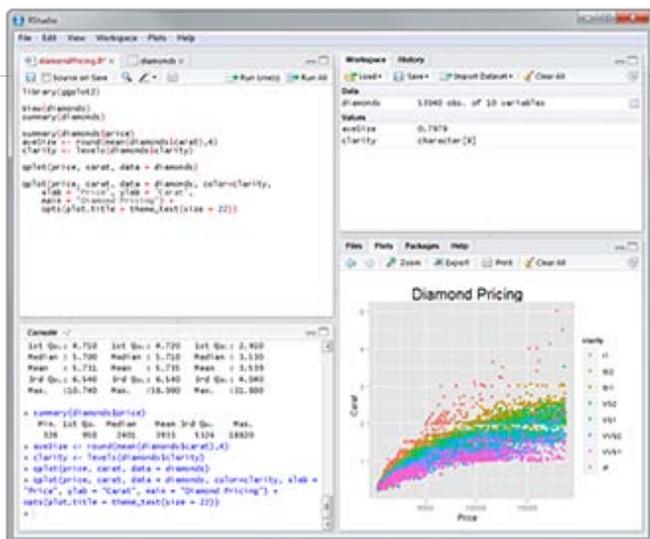
RStudio Beta Available (2/28/2011)

We are pleased to announce availability of the beta version of RStudio! RStudio is a new open-source IDE for R that runs either on your desktop or on a server (where it is accessed using a browser). We invite everyone to check out the [screenshots](#) for more details; [download](#) the product to try it out, and follow its ongoing [development](#) on github.

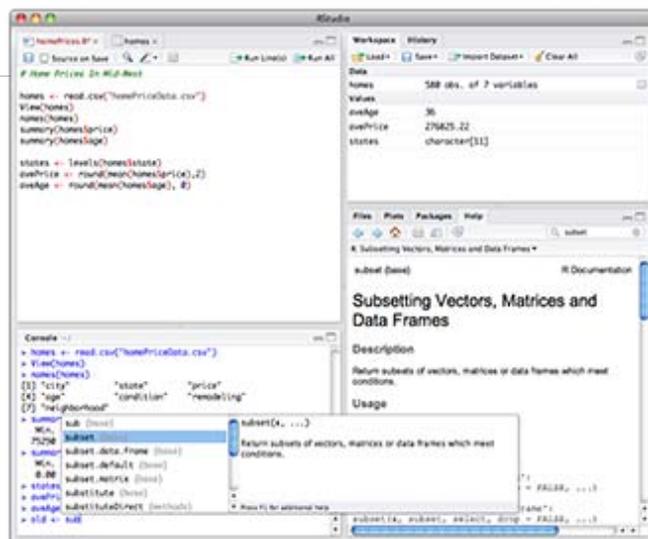


RStudio Screenshots

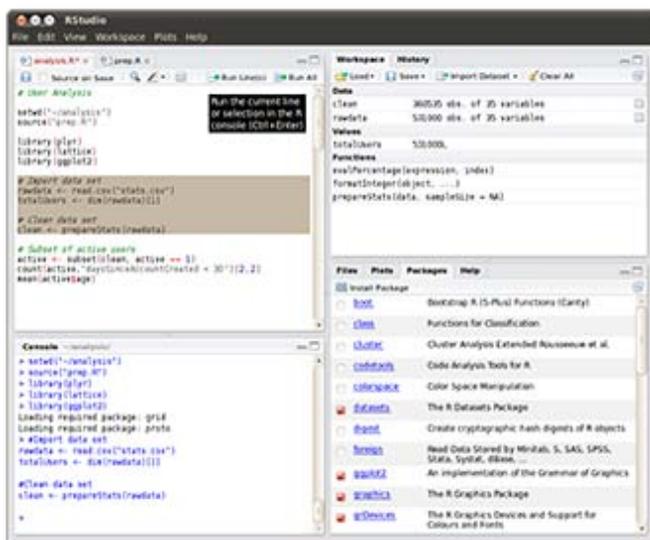
RStudio runs on all major platforms, and can even be run on a server and accessed remotely using a web browser:



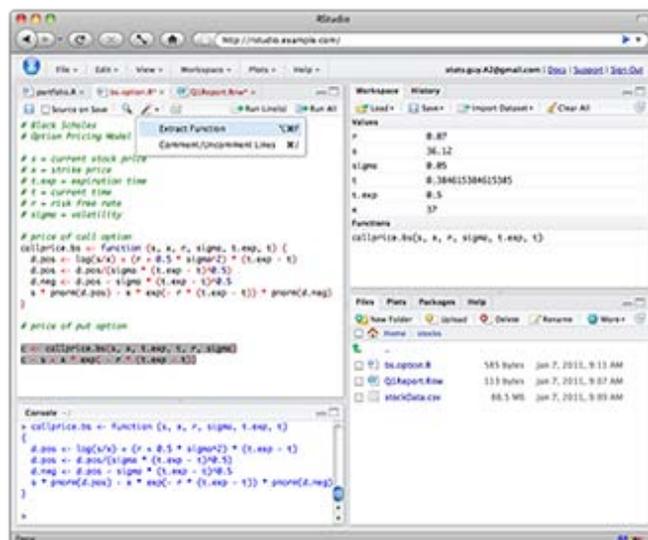
Windows



Mac OS X

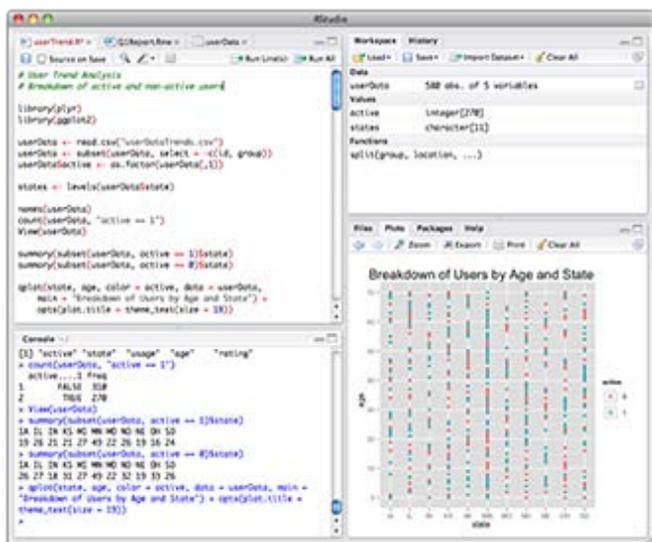


Ubuntu

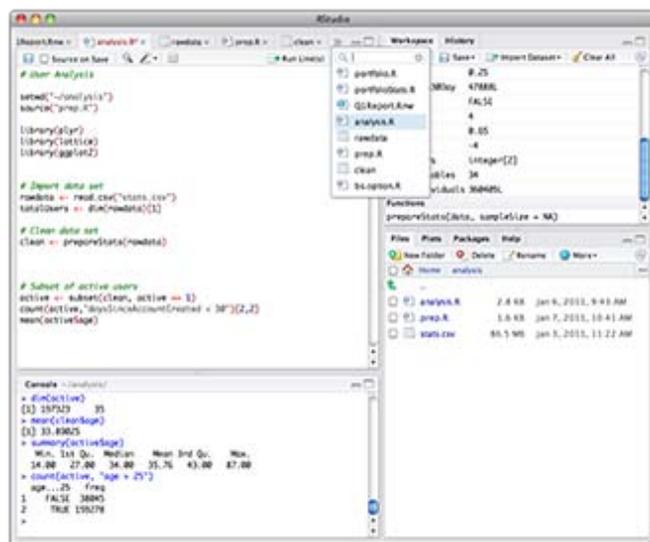


Over the Web

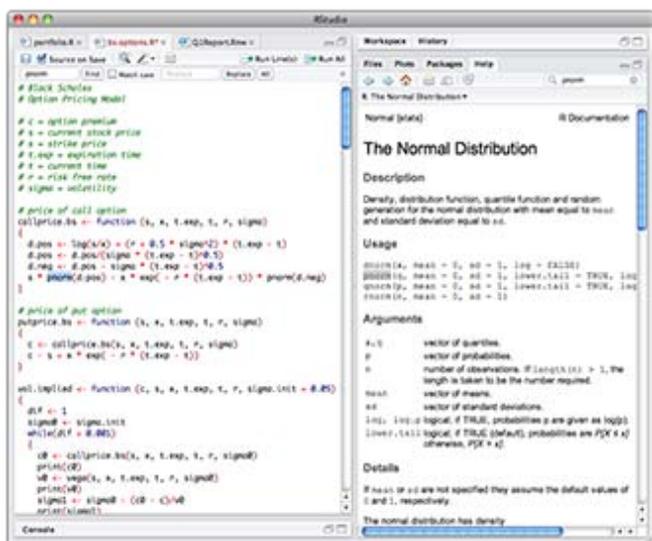
RStudio integrates all of the tools you use while working with R into a single customizable environment:



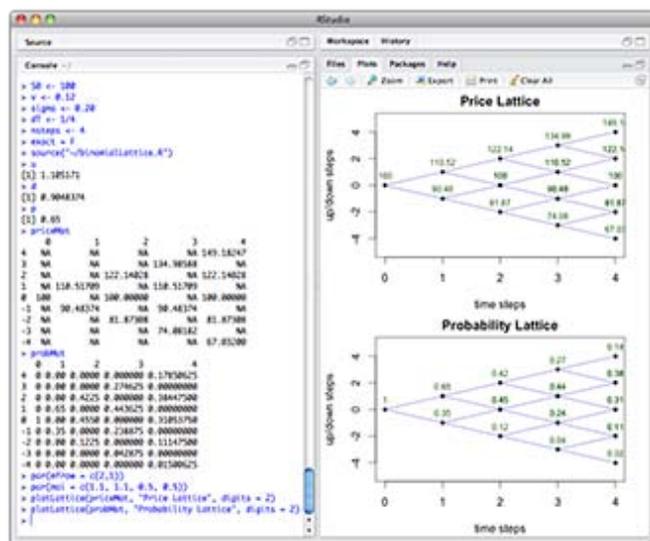
Source, Console, Workspace, and Plots



Tabbed Source Editor

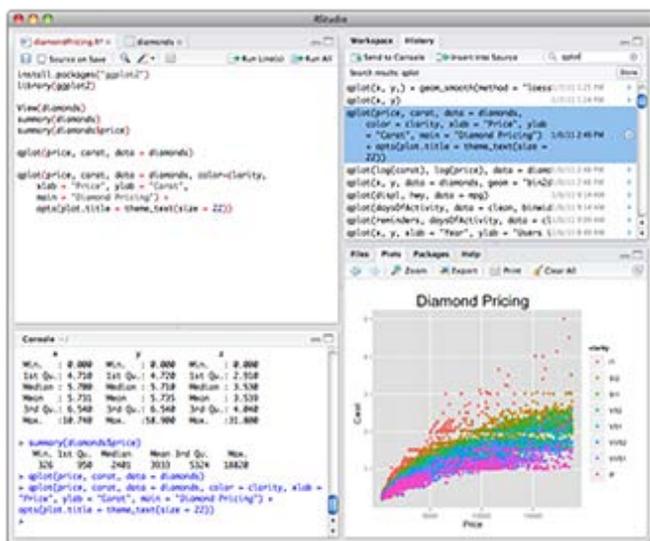


Customized for Coding

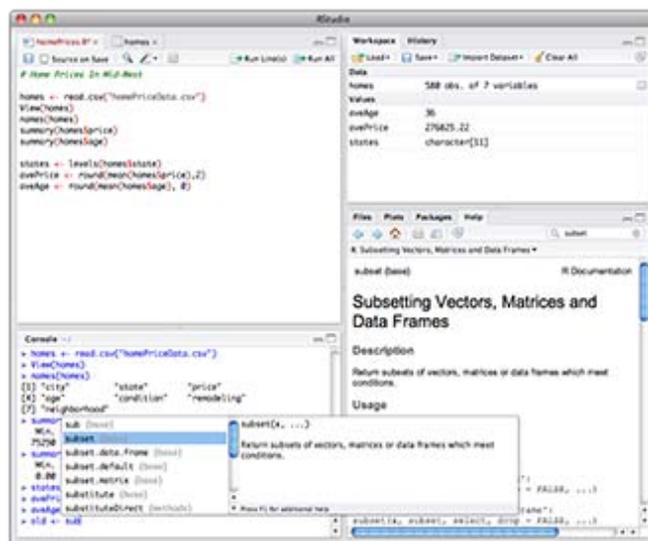


Customized for Plotting

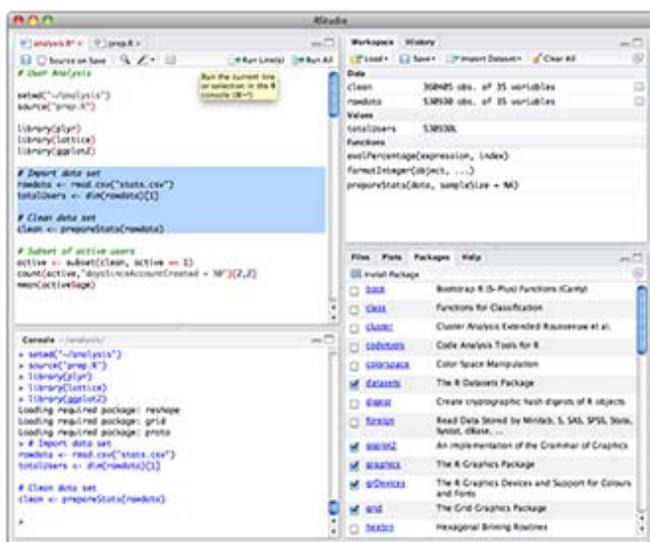
RStudio includes a variety of powerful coding tools designed to enhance your productivity:



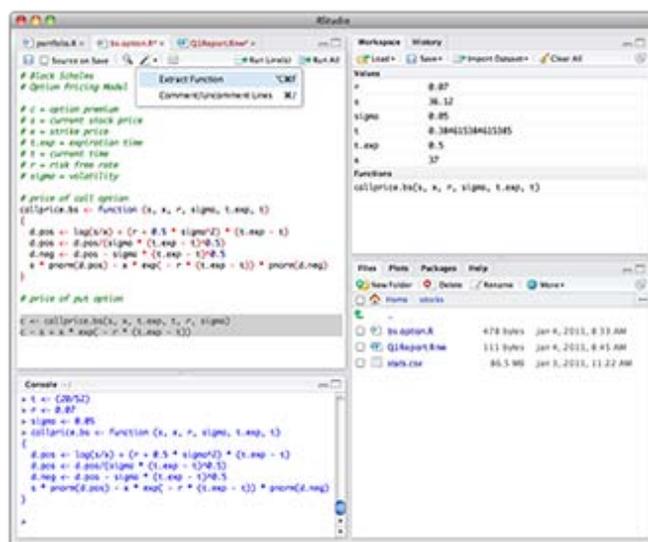
Searchable History



Code Completion

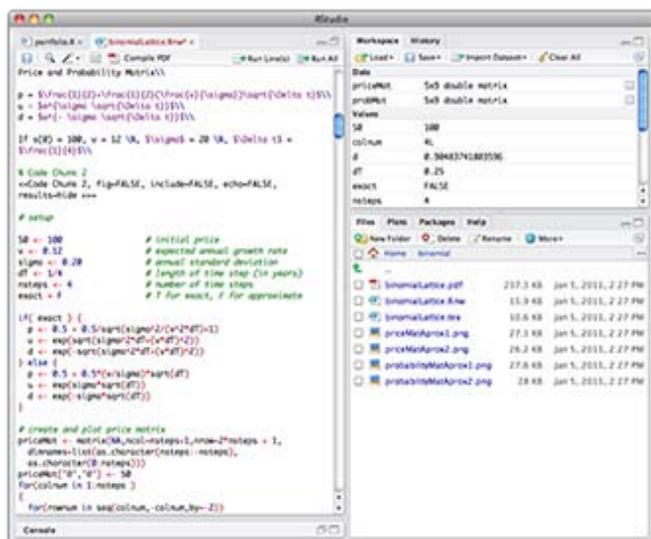


Execute From Source

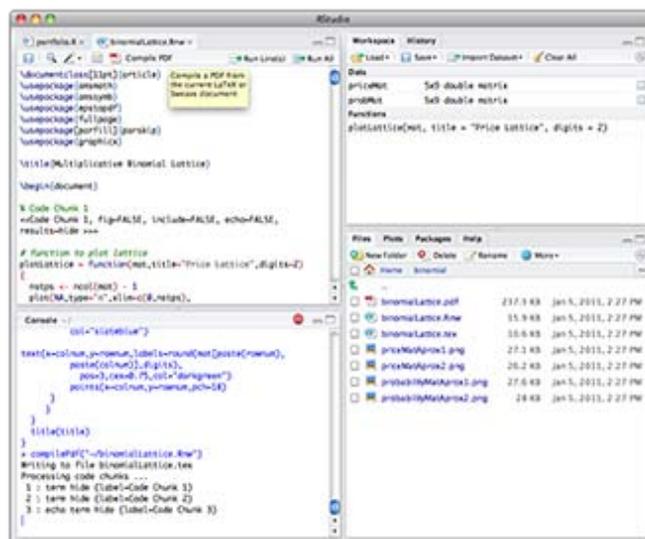


Code Transformations

RStudio supports authoring TeX and Sweave documents:



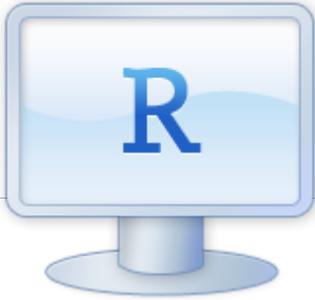
Syntax Highlighting Editor



One-Click PDF



Download RStudio



If you run R on your desktop:



OR



If you run R on a Linux server and want to enable users to remotely access RStudio using a web browser:





RStudio Documentation

Using RStudio

-  [Working in the Console](#)
-  [Editing and Executing Code](#)
-  [Using Command History](#)
-  [Keyboard Shortcuts](#)

Advanced Topics

-  [Using Different Versions of R](#)
-  [Optimizing your Browser for RStudio](#)
-  [Uploading and Downloading Files](#)

RStudio Server

-  [Getting Started](#)
-  [Configuring the Server](#)
-  [Managing the Server](#)
-  [Running with a Proxy](#)

More

-  [About RStudio](#)
-  [Frequently Asked Questions](#)
-  [Getting Help with R](#)



About RStudio

The RStudio Project

We started the RStudio project because we were excited and inspired by R. The [creators of R](#) provided a flexible and powerful foundation for statistical computing; then made it free and open so that it could be improved collaboratively and its benefits could be shared by the widest possible audience.

It's better for everyone if the tools used for research and science are free and open. Reproducibility, widespread sharing of knowledge and techniques, and the leveling of the playing field by eliminating cost barriers are but a few of the shared benefits of free software in science.

RStudio is an integrated development environment (IDE) for R which works with the standard version of R available from CRAN. Like R, RStudio is available under an open source license. Our goal is to develop a powerful tool that supports the practices and techniques required for creating trustworthy, high quality analysis. At the same time, we want RStudio to be as straightforward and intuitive as possible to provide a friendly environment for new and experienced R users alike. RStudio is also a company, and we plan to sell services (support, training, consulting, hosting) related to the open-source software we distribute.

We're looking forward to joining the R community, learning from users, growing the product, and hopefully making a meaningful contribution to the practice of research and science.

Our Team



JJ Allaire

JJ Allaire is a software engineer and entrepreneur who has created a wide variety of products including [ColdFusion](#), [Windows Live Writer](#), [Lose It!](#), and [RStudio](#).



Joe Cheng

Joe Cheng is a software engineer who has worked at a number of startups including Allaire, Upromise, and Onfolio. Most recently, he worked at Microsoft as the development lead for [Windows Live Writer](#).



Josh Paulson

Josh Paulson is a product manager who has been working with R for over 4 years, focusing principally on data visualization and financial modeling applications.



Paul DiCristina

Paul DiCristina is a designer with broad experience including consumer, enterprise, mobile, and web. Paul's design portfolio includes [RStudio](#), [Lose It!](#) and many other apps and sites.

Contact Us

Support: <http://support.rstudio.org>

Feedback: feedback@rstudio.org
info@rstudio.org

Inquiries:

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Frequently Asked Questions

What is RStudio?

RStudio is an integrated development environment (IDE) for R which works with the standard version of R available from CRAN. RStudio includes a wide range of productivity enhancing features and runs on all major platforms. RStudio can optionally also be run as server which enables you to provide a browser based interface to a version of R running on a remote system.

What versions of R is RStudio compatible with?

In order to run RStudio you need to have already installed R version 2.11.1 or higher. You can download the most recent version of R for your environment from [CRAN](#).

What is the best way to get started with R and RStudio?

To get started with R there are a wide variety of learning and reference materials available online. We recommend you check out the [Getting Help with R](#) article to find the appropriate resources.

To get started using RStudio check out the [Product Overview](#) as well as the other articles linked to from the [documentation](#).

What is the difference between RStudio Desktop and RStudio Server?

RStudio Desktop is an R IDE that works with the version of R you have installed on your local Windows, Mac OS X, or Linux workstation. RStudio Desktop is a standalone desktop application that in no way requires or connects to RStudio Server.

RStudio Server is a Linux server application that provides a web browser based interface to the version of R running on the server. For more on why you might want to deploy an RStudio Server see the [server documentation](#).

Will RStudio be providing a hosted version of RStudio Server?

Yes, we do plan to provide a hosted version of RStudio Server so that customers can use RStudio over the web without having to deploy their own servers. We haven't announced a specific timeframe for this service yet, however if you are interested in testing it when the beta version becomes available please contact us at info@rstudio.org.

What license is RStudio available under?

RStudio is available under the [GNU Affero General Public License v3](#). The AGPL v3 is an open-source license that guarantees the freedom to share and change the software, and to make sure it remains free software for all its users.

Where can I find the latest updates and news about RStudio?

To keep up with the latest RStudio developments you can subscribe to our [blog](#) or [follow us](#) on Twitter.

Where can I get support for using RStudio?

Our [support web site](#) includes a knowledge base and discussion forum for reporting problems, asking questions, and discussing new ideas and features. Our team and others in the community actively participates in the forum so it is a great place to go for help or answers.



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RStudio

File Edit View Workspace Plots Help

diamondPricing.R* x diamonds x

Source on Save Run Line(s) Run All

Library(ggplot2)

```
View(diamonds)
summary(diamonds)

summary(diamonds$price)
aveSize <- round(mean(diamonds$carat),4)
clarity <- levels(diamonds$clarity)

qplot(price, carat, data = diamonds)

qplot(price, carat, data = diamonds, color=clarity,
      xlab = "Price", ylab = "Carat",
      main = "Diamond Pricing") +
  opts(plot.title = theme_text(size = 22))
```

Workspace History

Load Save Import Dataset Clear All

Data

diamonds 53940 obs. of 10 variables

Values

aveSize 0.7979

clarity character [8]

Files Plots Packages Help

Zoom Export Print Clear All

Diamond Pricing

Carat

Price

clarity

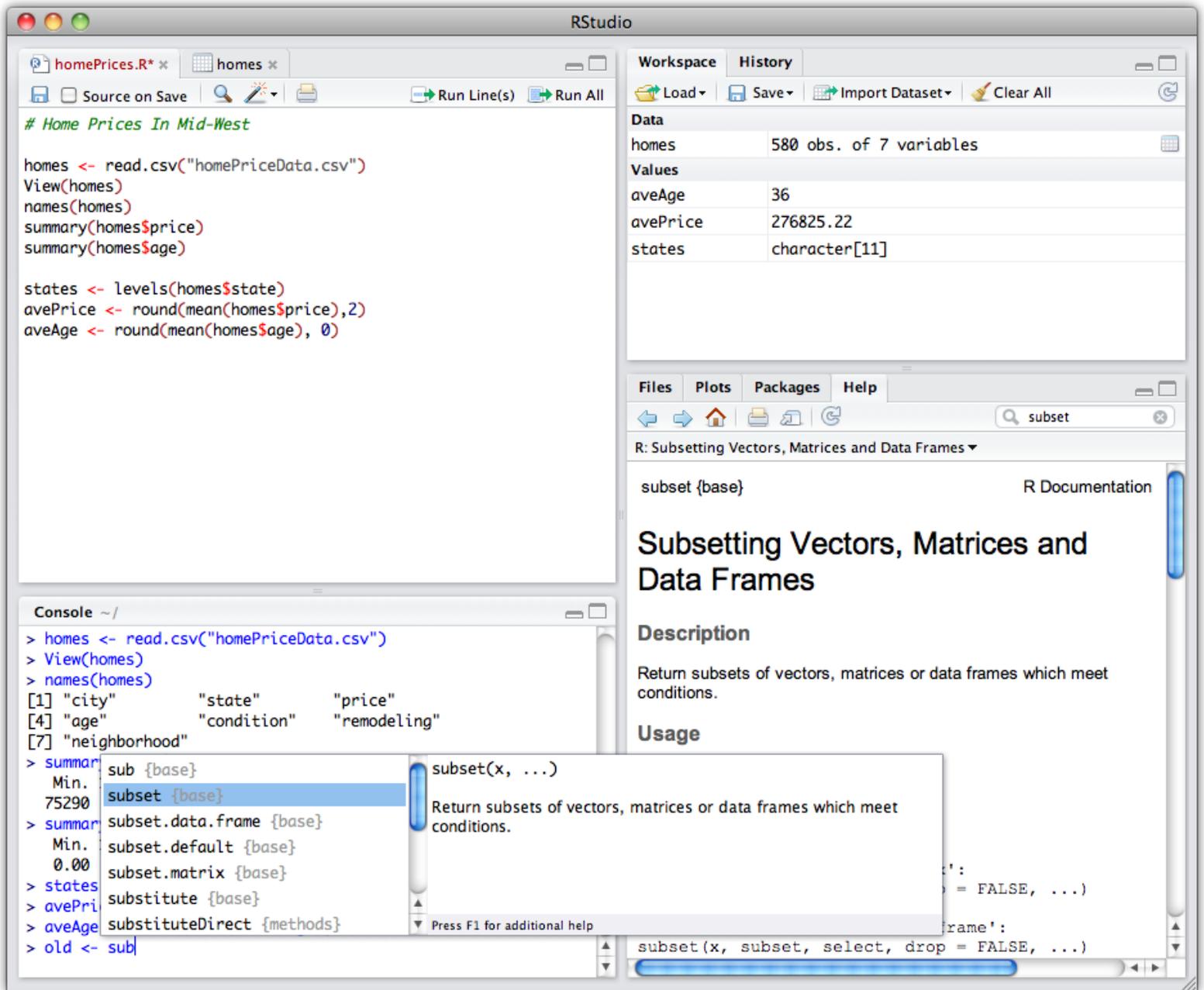
- I1
- SI2
- SI1
- VS2
- VS1
- VVS2
- VVS1
- IF

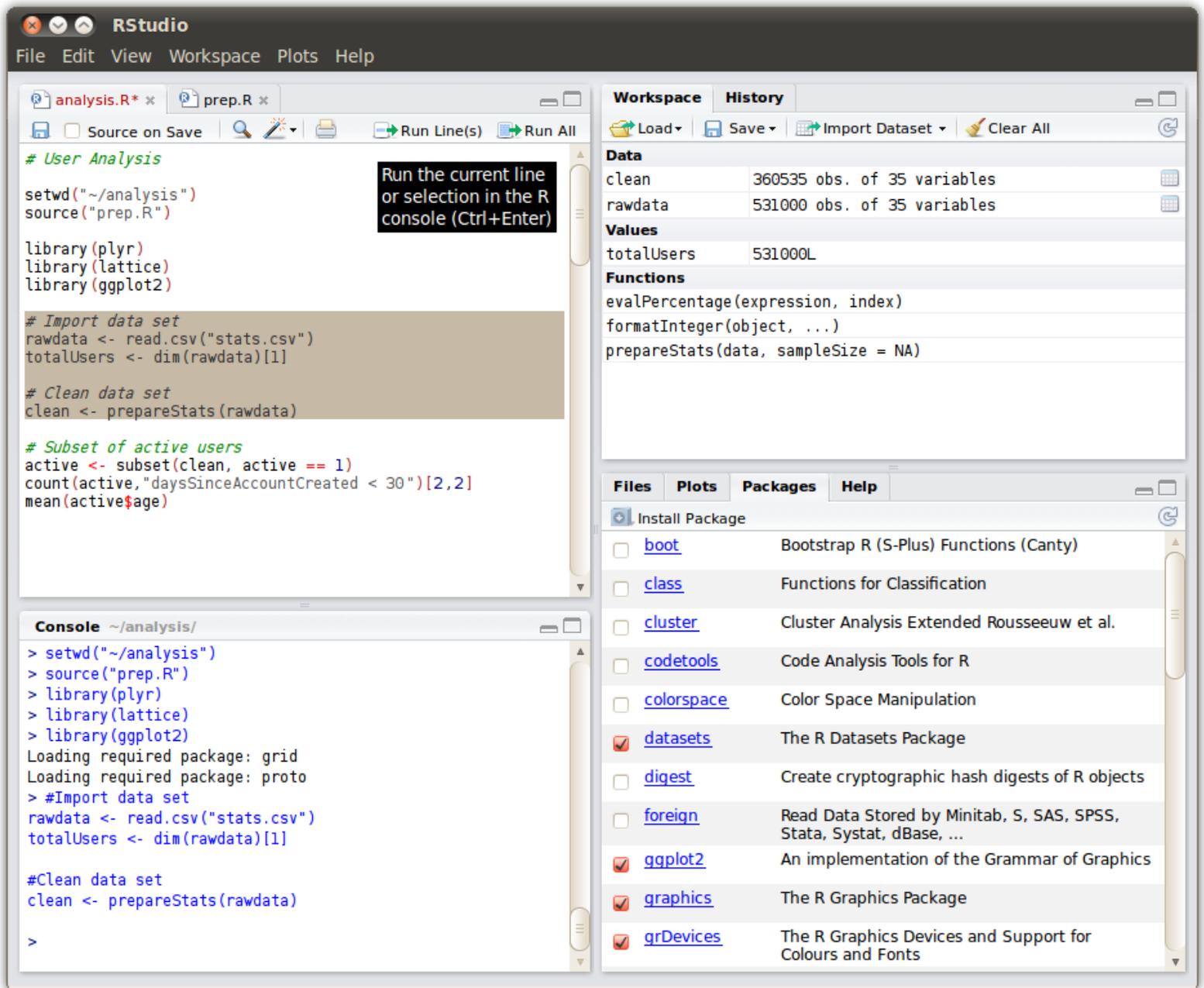
Console ~/

```
1st Qu.: 4.710 1st Qu.: 4.720 1st Qu.: 2.910
Median : 5.700 Median : 5.710 Median : 3.530
Mean : 5.731 Mean : 5.735 Mean : 3.539
3rd Qu.: 6.540 3rd Qu.: 6.540 3rd Qu.: 4.040
Max. :10.740 Max. :58.900 Max. :31.800

> summary(diamonds$price)
  Min. 1st Qu. Median Mean 3rd Qu. Max.
  326 950 2401 3933 5324 18820

> aveSize <- round(mean(diamonds$carat),4)
> clarity <- levels(diamonds$clarity)
> qplot(price, carat, data = diamonds)
> qplot(price, carat, data = diamonds, color=clarity, xlab =
"Price", ylab = "Carat", main = "Diamond Pricing") +
  opts(plot.title = theme_text(size = 22))
> |
```





RStudio

http://rstudio.example.com/

stats.guy.42@gmail.com | Docs | Support | Sign Out

File Edit View Workspace Plots Help

portfolio.R * bs.option.R * Q1Report.Rnw *

Source on Save Run Line(s) Run All

```

# Black Scholes
# Option Pricing Model

# s = current stock price
# x = strike price
# t.exp = expiration time
# t = current time
# r = risk free rate
# sigma = volatility

# price of call option
callprice.bs <- function (s, x, r, sigma, t.exp, t) {
  d.pos <- log(s/x) + (r + 0.5 * sigma^2) * (t.exp - t)
  d.pos <- d.pos/(sigma * (t.exp - t)^0.5)
  d.neg <- d.pos - sigma * (t.exp - t)^0.5
  s * pnorm(d.pos) - x * exp(- r * (t.exp - t)) * pnorm(d.neg)
}

# price of put option

c <- callprice.bs(s, x, t.exp, t, r, sigma)
c - s + x * exp(- r * (t.exp - t))

```

Extract Function ⌘%F
Comment/Uncomment Lines %/

Workspace History

Load Save Import Dataset Clear All

Values

r	0.07
s	36.12
sigma	0.05
t	0.384615384615385
t.exp	0.5
x	37

Functions

callprice.bs(s, x, r, sigma, t.exp, t)

Files Plots Packages Help

New Folder Upload Delete Rename More

Home > stocks

..		
bs.option.R	585 bytes	Jan 7, 2011, 9:11 AM
Q1Report.Rnw	113 bytes	Jan 7, 2011, 9:07 AM
stockData.csv	86.5 MB	Jan 7, 2011, 9:09 AM

Console ~/

```

> callprice.bs <- function (s, x, r, sigma, t.exp, t)
{
  d.pos <- log(s/x) + (r + 0.5 * sigma^2) * (t.exp - t)
  d.pos <- d.pos/(sigma * (t.exp - t)^0.5)
  d.neg <- d.pos - sigma * (t.exp - t)^0.5
  s * pnorm(d.pos) - x * exp(- r * (t.exp - t)) * pnorm(d.neg)
}
>

```

Done

S3fox

RStudio

userTrend.R* * Q1Report.Rnw * userData *

Source on Save Run Line(s) Run All

```

# User Trend Analysis
# Breakdown of active and non-active users

library(ply)
library(ggplot2)

userData <- read.csv("userDataTrends.csv")
userData <- subset(userData, select = -c(id, group))
userData$active <- as.factor(userData[,1])

states <- levels(userData$state)

names(userData)
count(userData, "active == 1")
View(userData)

summary(subset(userData, active == 1)$state)
summary(subset(userData, active == 0)$state)

qplot(state, age, color = active, data = userData,
      main = "Breakdown of Users by Age and State") +
  opts(plot.title = theme_text(size = 19))

```

Workspace History

Load Save Import Dataset Clear All

Data

userData 580 obs. of 5 variables

Values

active integer[270]
states character[11]

Functions

split(group, location, ...)

Files Plots Packages Help

Zoom Export Print Clear All

Breakdown of Users by Age and State

active

0
1

age

state

Console ~/

```

[1] "active" "state" "usage" "age" "rating"
> count(userData, "active == 1")
active...1 freq
1 FALSE 310
2 TRUE 270
> View(userData)
> summary(subset(userData, active == 1)$state)
IA IL IN KS MI MN MO ND NE OH SD
19 26 21 21 27 49 22 26 19 16 24
> summary(subset(userData, active == 0)$state)
IA IL IN KS MI MN MO ND NE OH SD
26 27 18 31 27 49 22 32 19 33 26
> qplot(state, age, color = active, data = userData, main =
"Breakdown of Users by Age and State") + opts(plot.title =
theme_text(size = 19))
>

```

The screenshot displays the RStudio environment with the following components:

- Script Editor:** Contains R code for data analysis, including library loading, data import, cleaning, and subsetting.
- Console:** Shows the execution output of the script, including dimensions of data frames, means, summaries, and counts.
- Workspace:** Lists the objects currently in memory, with 'analysis.R' selected.
- History:** Shows a list of objects created during the session, including 'portfolio.R', 'portfolioStats.R', 'Q1Report.Rnw', 'analysis.R', 'rawdata', 'prep.R', 'clean', and 'bs.option.R'.
- Files Panel:** Displays the file structure of the current project, including 'analysis.R', 'prep.R', and 'stats.csv'.

```
# User Analysis
setwd("~/analysis")
source("prep.R")

library(plyr)
library(lattice)
library(ggplot2)

# Import data set
rawdata <- read.csv("stats.csv")
totalUsers <- dim(rawdata)[1]

# Clean data set
clean <- prepareStats(rawdata)

# Subset of active users
active <- subset(clean, active == 1)
count(active, "daysSinceAccountCreated < 30")[2,2]
mean(active$age)
```

```
> dim(active)
[1] 197323 35
> mean(clean$age)
[1] 33.89025
> summary(active$age)
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
14.00  27.00  34.00  35.76  43.00  87.00
> count(active, "age > 25")
age..25  freq
1  FALSE 38045
2   TRUE 159278
>
```

Workspace:

- portfolio.R
- portfolioStats.R
- Q1Report.Rnw
- analysis.R
- rawdata
- prep.R
- clean
- bs.option.R

History:

0.25
30Day 47888L
FALSE
4
0.65
-4
s integer[2]
ables 34
viduals 360405L

Files:

File	Size	Modified
..		
analysis.R	2.8 KB	Jan 6, 2011, 9:43 AM
prep.R	1.6 KB	Jan 7, 2011, 10:41 AM
stats.csv	86.5 MB	Jan 3, 2011, 11:22 AM

RStudio

portfolio.R * bs.options.R * Q1Report.Rnw *

Source on Save Find Match case Replace Replace All

```

# Black Scholes
# Option Pricing Model

# c = option premium
# s = current stock price
# x = strike price
# t.exp = expiration time
# t = current time
# r = risk free rate
# sigma = volatility

# price of call option
callprice.bs <- function (s, x, t.exp, t, r, sigma)
{
  d.pos <- log(s/x) + (r + 0.5 * sigma^2) * (t.exp - t)
  d.pos <- d.pos/(sigma * (t.exp - t)^0.5)
  d.neg <- d.pos - sigma * (t.exp - t)^0.5
  s * pnorm(d.pos) - x * exp(- r * (t.exp - t)) * pnorm(d.neg)
}

# price of put option
putprice.bs <- function (s, x, t.exp, t, r, sigma)
{
  c <- callprice.bs(s, x, t.exp, t, r, sigma)
  c - s + x * exp(- r * (t.exp - t))
}

vol.implied <- function (c, s, x, t.exp, t, r, sigma.init = 0.05)
{
  dif <- 1
  sigma0 <- sigma.init
  while(dif > 0.001)
  {
    c0 <- callprice.bs(s, x, t.exp, t, r, sigma0)
    print(c0)
    v0 <- vega(s, x, t.exp, t, r, sigma0)
    print(v0)
    sigma1 <- sigma0 - (c0 - c)/v0
    print(sigma1)
  }
}

```

Workspace History

Files Plots Packages Help

R: The Normal Distribution

The Normal Distribution

Description

Density, distribution function, quantile function and random generation for the normal distribution with mean equal to mean and standard deviation equal to sd.

Usage

```

dnorm(x, mean = 0, sd = 1, log = FALSE)
pnorm(q, mean = 0, sd = 1, lower.tail = TRUE, log
qnorm(p, mean = 0, sd = 1, lower.tail = TRUE, log
rnorm(n, mean = 0, sd = 1)

```

Arguments

- x, q vector of quantiles.
- p vector of probabilities.
- n number of observations. If length(n) > 1, the length is taken to be the number required.
- mean vector of means.
- sd vector of standard deviations.
- log, log.p logical; if TRUE, probabilities p are given as log(p).
- lower.tail logical; if TRUE (default), probabilities are $P[X \leq x]$ otherwise, $P[X > x]$.

Details

If mean or sd are not specified they assume the default values of 0 and 1, respectively.

The normal distribution has density

Console

Source



Workspace

History



Console ~/



```

> S0 <- 100
> v <- 0.12
> sigma <- 0.20
> dT <- 1/4
> nsteps <- 4
> exact = F
> source("~/binomialLattice.R")
> u
[1] 1.105171
> d
[1] 0.9048374
> p
[1] 0.65
> priceMat
  0      1      2      3      4
4 NA      NA      NA      NA 149.18247
3 NA      NA      NA 134.98588      NA
2 NA      NA 122.14028      NA 122.14028
1 NA 110.51709      NA 110.51709      NA
0 100      NA 100.00000      NA 100.00000
-1 NA 90.48374      NA 90.48374      NA
-2 NA      NA 81.87308      NA 81.87308
-3 NA      NA      NA 74.08182      NA
-4 NA      NA      NA      NA 67.03200
> probMat
  0      1      2      3      4
4 0 0.00 0.0000 0.000000 0.17850625
3 0 0.00 0.0000 0.274625 0.00000000
2 0 0.00 0.4225 0.000000 0.38447500
1 0 0.65 0.0000 0.443625 0.00000000
0 1 0.00 0.4550 0.000000 0.31053750
-1 0 0.35 0.0000 0.238875 0.00000000
-2 0 0.00 0.1225 0.000000 0.11147500
-3 0 0.00 0.0000 0.042875 0.00000000
-4 0 0.00 0.0000 0.000000 0.01500625
> par(mfrow = c(2,1))
> par(mai = c(1.1, 1.1, 0.5, 0.5))
> plotLattice(priceMat, "Price Lattice", digits = 2)
> plotLattice(probMat, "Probability Lattice", digits = 2)
> |

```

Files

Plots

Packages

Help



Zoom



Export



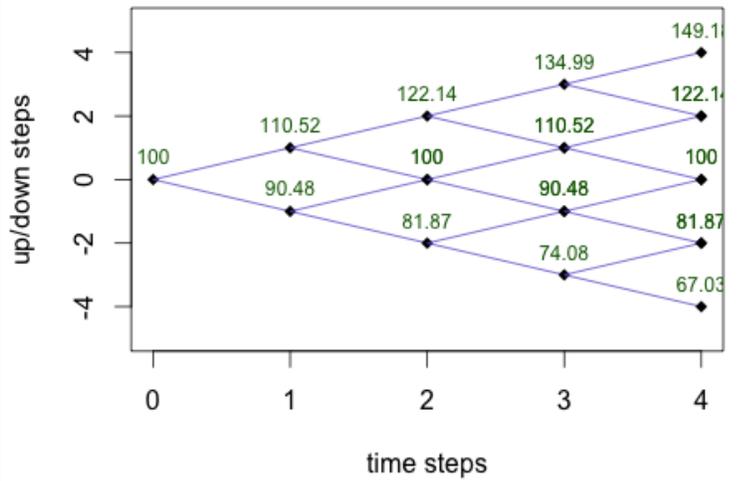
Print



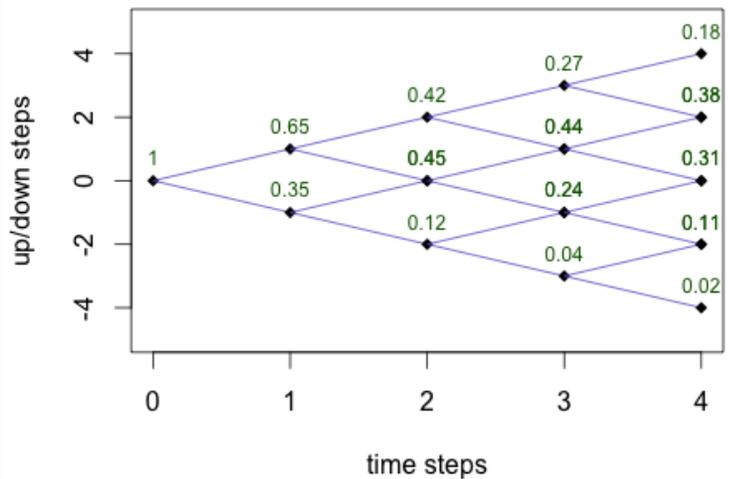
Clear All



Price Lattice



Probability Lattice



RStudio

diamondPricing.R* x diamonds x

Source on Save Run Line(s) Run All

```
install.packages("ggplot2")
library(ggplot2)

View(diamonds)
summary(diamonds)
summary(diamonds$price)

qplot(price, carat, data = diamonds)

qplot(price, carat, data = diamonds, color=clarity,
      xlab = "Price", ylab = "Carat",
      main = "Diamond Pricing") +
  opts(plot.title = theme_text(size = 22))
```

Workspace History

Send to Console Insert into Source qplot

Search results: qplot Done

```
qplot(x, y) + geom_smooth(method = "loess" 1/7/11 1:25 PM >
qplot(x, y) 1/7/11 1:24 PM >
qplot(price, carat, data = diamonds,
      color = clarity, xlab = "Price", ylab
      = "Carat", main = "Diamond Pricing") 1/6/11 2:49 PM >
+ opts(plot.title = theme_text(size =
      22))
qplot(log(carat), log(price), data = diamo 1/6/11 2:48 PM >
qplot(x, y, data = diamonds, geom = "bin2d 1/6/11 2:48 PM >
qplot(displ, hwy, data = mpg) 1/6/11 9:14 AM >
qplot(daysOfActivity, data = clean, binwid 1/6/11 9:14 AM >
qplot(reminders, daysOfActivity, data = cl 1/6/11 9:09 AM >
qplot(x, y, xlab = "Year", ylab = "Users i 1/6/11 8:49 AM >
```

Files Plots Packages Help

Zoom Export Print Clear All

Diamond Pricing

Carat

Price

clarity

- I1
- SI2
- SI1
- VS2
- VS1
- VVS2
- VVS1
- IF

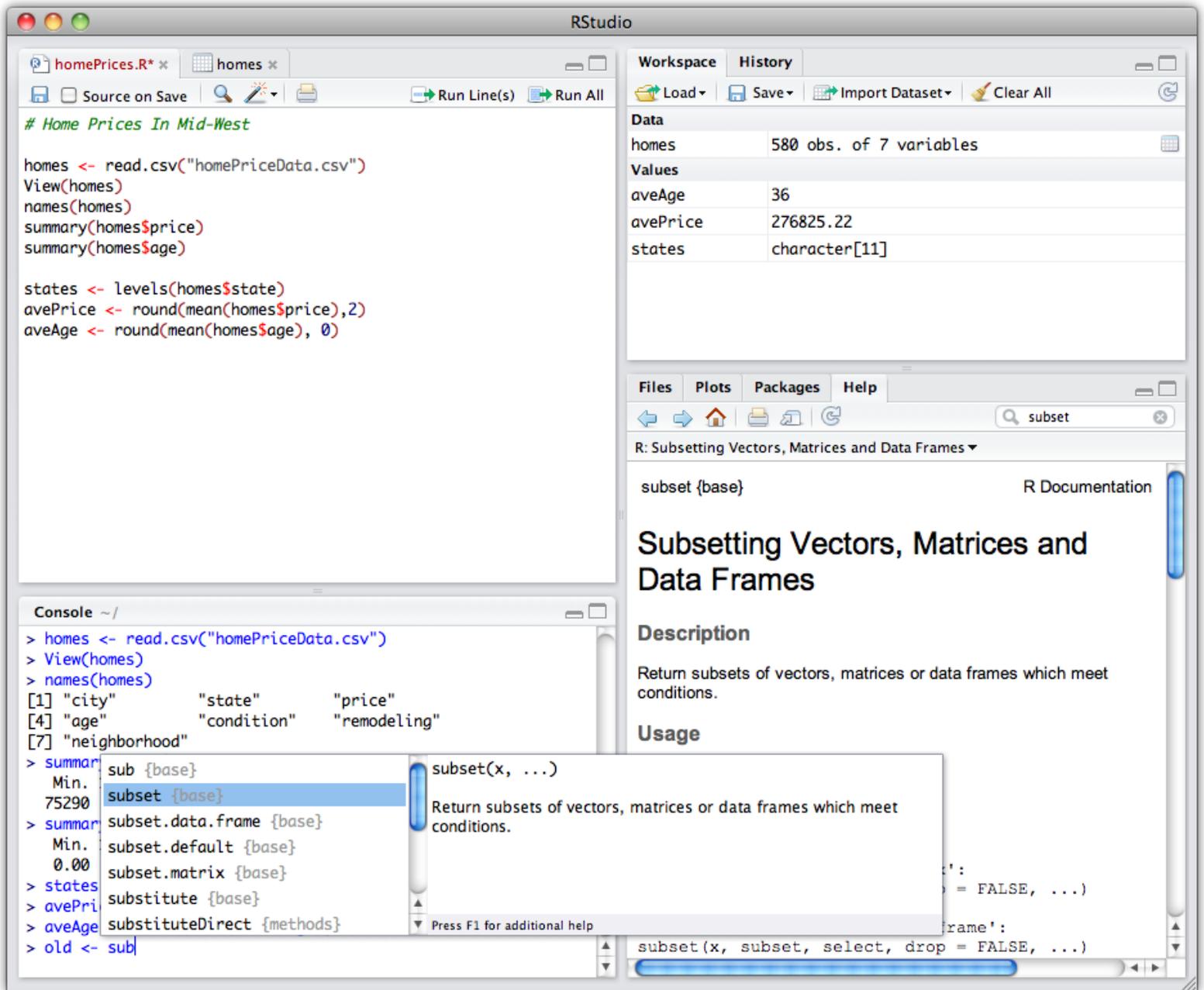
Console ~/

```

  x           y           z
Min.   : 0.000   Min.   : 0.000   Min.   : 0.000
1st Qu.: 4.710   1st Qu.: 4.720   1st Qu.: 2.910
Median : 5.700   Median : 5.710   Median : 3.530
Mean   : 5.731   Mean   : 5.735   Mean   : 3.539
3rd Qu.: 6.540   3rd Qu.: 6.540   3rd Qu.: 4.040
Max.   :10.740   Max.   :58.900   Max.   :31.800

> summary(diamonds$price)
  Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  326   950   2401   3933   5324   18820

> qplot(price, carat, data = diamonds)
> qplot(price, carat, data = diamonds, color = clarity, xlab =
"Price", ylab = "Carat", main = "Diamond Pricing") +
opts(plot.title = theme_text(size = 22))
>
```



RStudio

analysis.R* x prep.R x

Source on Save Run Line(s) Run All

```
# User Analysis
setwd("~/analysis")
source("prep.R")

library(plyr)
library(lattice)
library(ggplot2)

# Import data set
rawdata <- read.csv("stats.csv")
totalUsers <- dim(rawdata)[1]

# Clean data set
clean <- prepareStats(rawdata)

# Subset of active users
active <- subset(clean, active == 1)
count(active, "daysSinceAccountCreated < 30")[2,2]
mean(active$age)
```

Run the current line or selection in the R console (⌘↵)

Workspace History

Load Save Import Dataset Clear All

Data

clean	360405 obs. of 35 variables
rawdata	530930 obs. of 35 variables

Values

totalUsers	530930L
------------	---------

Functions

- evalPercentage(expression, index)
- formatInteger(object, ...)
- prepareStats(data, sampleSize = NA)

Files Plots Packages Help

Install Package

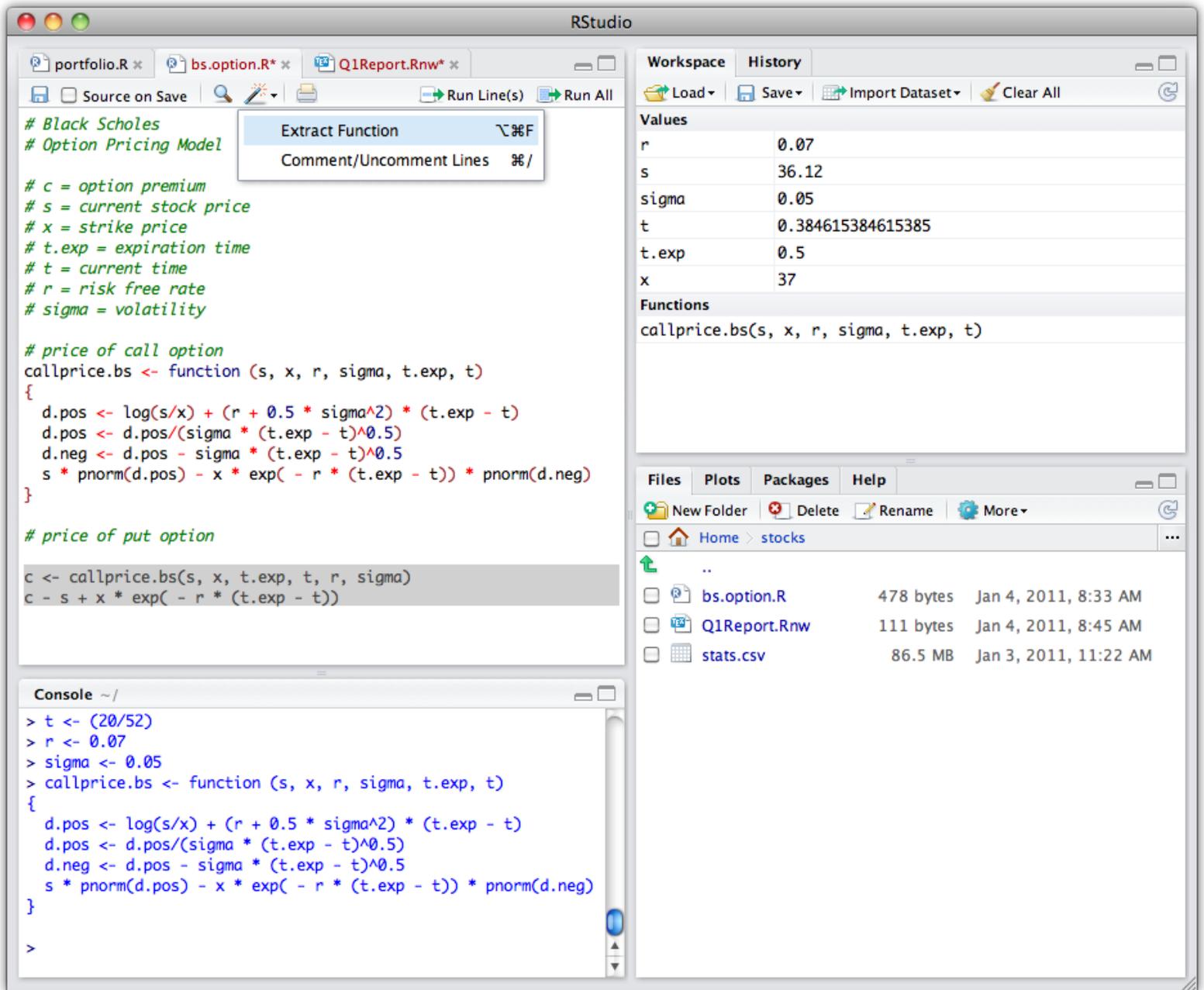
- [boot](#) Bootstrap R (S-Plus) Functions (Canty)
- [class](#) Functions for Classification
- [cluster](#) Cluster Analysis Extended Rousseeuw et al.
- [codetools](#) Code Analysis Tools for R
- [colorspace](#) Color Space Manipulation
- [datasets](#) The R Datasets Package
- [digest](#) Create cryptographic hash digests of R objects
- [foreign](#) Read Data Stored by Minitab, S, SAS, SPSS, Stata, Systat, dBase, ...
- [ggplot2](#) An implementation of the Grammar of Graphics
- [graphics](#) The R Graphics Package
- [grDevices](#) The R Graphics Devices and Support for Colours and Fonts
- [grid](#) The Grid Graphics Package
- [hexbin](#) Hexagonal Binning Routines

Console ~/analysis/

```
> setwd("~/analysis")
> source("prep.R")
> library(plyr)
> library(lattice)
> library(ggplot2)
Loading required package: reshape
Loading required package: grid
Loading required package: proto
> # Import data set
rawdata <- read.csv("stats.csv")
totalUsers <- dim(rawdata)[1]

# Clean data set
clean <- prepareStats(rawdata)

>
```



RStudio

portfolio.R * binomialLattice.Rnw *
Workspace History

Compile PDF Run Line(s) Run All
Load Save Import Dataset Clear All

Price and Probability Matrix\\

$$p = \frac{1}{2} + \frac{1}{2} \left(\frac{v}{\sigma} \right) \sqrt{\Delta t}$$

$$u = e^{\sigma \sqrt{\Delta t}}$$

$$d = e^{-\sigma \sqrt{\Delta t}}$$

If $s(0) = 100$, $v = 12\%$, $\sigma = 20\%$, $\Delta t = \frac{1}{4}$

% Code Chunk 2
 <<Code Chunk 2, fig=FALSE, include=FALSE, echo=FALSE, results=hide >>=

setup

```
S0 <- 100           # initial price
v <- 0.12           # expected annual growth rate
sigma <- 0.20      # annual standard deviation
dT <- 1/4          # length of time step (in years)
nsteps <- 4        # number of time steps
exact = F          # T for exact, F for approximate
```

```
if( exact ) {
  p <- 0.5 + 0.5/sqrt(sigma^2/(v^2*dT)+1)
  u <- exp(sqrt(sigma^2*dT+(v*dT)^2))
  d <- exp(-sqrt(sigma^2*dT+(v*dT)^2))
} else {
  p <- 0.5 + 0.5*(v/sigma)*sqrt(dT)
  u <- exp(sigma*sqrt(dT))
  d <- exp(-sigma*sqrt(dT))
}
```

create and plot price matrix

```
priceMat <- matrix(NA,ncol=nsteps+1,nrow=2*nsteps + 1,
  dimnames=list(as.character(nsteps:-nsteps),
  as.character(0:nsteps)))
priceMat["0","0"] <- S0
for(colnum in 1:nsteps )
{
  for(rownum in seq(colnum,-colnum,by=-2))
```

Data

priceMat	5x9 double matrix
probMat	5x9 double matrix
Values	
S0	100
colnum	4L
d	0.90483741803596
dT	0.25
exact	FALSE
nsteps	4

Files Plots Packages Help

New Folder Delete Rename More

Home > binomial

binomialLattice.pdf	237.3 KB	Jan 5, 2011, 2:27 PM
binomialLattice.Rnw	15.9 KB	Jan 5, 2011, 2:27 PM
binomialLattice.tex	10.6 KB	Jan 5, 2011, 2:27 PM
priceMatAprox1.png	27.1 KB	Jan 5, 2011, 2:27 PM
priceMatAprox2.png	26.2 KB	Jan 5, 2011, 2:27 PM
probabilityMatAprox1.png	27.6 KB	Jan 5, 2011, 2:27 PM
probabilityMatAprox2.png	28 KB	Jan 5, 2011, 2:27 PM

Console

RStudio

portfolio.R * binomialLattice.Rnw *

Compile PDF Run Line(s) Run All

Compile a PDF from the current LaTeX or Sweave document

```

\documentclass[11pt]{article}
\usepackage{amsmath}
\usepackage{amssymb}
\usepackage{epstopdf}
\usepackage{fullpage}
\usepackage[parfill]{parskip}
\usepackage{graphicx}

\title{Multiplicative Binomial Lattice}

\begin{document}

% Code Chunk 1
<<Code Chunk 1, fig=FALSE, include=FALSE, echo=FALSE,
results=hide >>=

# function to plot lattice
plotLattice = function(mat,title="Price Lattice",digits=2)
{
  nsteps <- ncol(mat) - 1
  plot(NA,type="n",xlim=c(0,nsteps),

```

Workspace History

Load Save Import Dataset Clear All

Data

priceMat 5x9 double matrix

probMat 5x9 double matrix

Functions

plotLattice(mat, title = "Price Lattice", digits = 2)

Files Plots Packages Help

New Folder Delete Rename More

Home > binomial

..

<input type="checkbox"/>		binomialLattice.pdf	237.3 KB	Jan 5, 2011, 2:27 PM
<input type="checkbox"/>		binomialLattice.Rnw	15.9 KB	Jan 5, 2011, 2:27 PM
<input type="checkbox"/>		binomialLattice.tex	10.6 KB	Jan 5, 2011, 2:27 PM
<input type="checkbox"/>		priceMatAprox1.png	27.1 KB	Jan 5, 2011, 2:27 PM
<input type="checkbox"/>		priceMatAprox2.png	26.2 KB	Jan 5, 2011, 2:27 PM
<input type="checkbox"/>		probabilityMatAprox1.png	27.6 KB	Jan 5, 2011, 2:27 PM
<input type="checkbox"/>		probabilityMatAprox2.png	28 KB	Jan 5, 2011, 2:27 PM

Console ~/

```

col="slateblue")

text(x=colnum,y=rownum,labels=round(mat[paste(rownum),
paste(colnum)],digits),
      pos=3,cex=0.75,col="darkgreen")
  points(x=colnum,y=rownum,pch=18)
}
}
}
title(title)
}
> compilePdf("~/binomialLattice.Rnw")
Writing to file binomialLattice.tex
Processing code chunks ...
1 : term hide (label=Code Chunk 1)
2 : term hide (label=Code Chunk 2)
3 : echo term hide (label=Code Chunk 3)
|

```



Download RStudio Desktop (Beta)

NOTE: RStudio requires that R version 2.11.1 or higher be already installed on your desktop. If you don't already have R, you can download it [here](#).

Recommended For Your System	Size	Date	MD5
 RStudio Desktop 0.92.23 - Windows XP/Vista/7	15 MB	2011-02-23	f9a6c6282045dce989f7d8db782a4a0e

All Platforms	Size	Date	MD5
RStudio Desktop 0.92.23 - Windows XP/Vista/7	15 MB	2011-02-23	f9a6c6282045dce989f7d8db782a4a0e
RStudio Desktop 0.92.23 - Mac OS X 10.5+	38 MB	2011-02-23	4ffbbb59e72b05cd1bbb33d5dd1a98ed
RStudio Desktop 0.92.23 - Ubuntu 10.04+ (32-bit)	20 MB	2011-02-23	8e51521d1d9912f15967b34842eb4d58
RStudio Desktop 0.92.23 - Ubuntu 10.04+ (64-bit)	20 MB	2011-02-23	94f11b66ee3c2a6034bb9d9dab9be607
RStudio Desktop 0.92.23 - Fedora 13+ (32-bit)	20 MB	2011-02-23	1a80dd93d3f701cf21a5bd000a81c1dc
RStudio Desktop 0.92.23 - Fedora 13+ (64-bit)	20 MB	2011-02-23	b0bfa93aab335ac9c5b65d2c9e1718ef

Source Code

Source code for RStudio is available at <https://github.com/rstudio/rstudio>. In addition, the SOURCE file included within the binary distribution contains instructions on downloading the source code which was specifically used to create that binary.



Download RStudio Server (Beta)

Ubuntu (10.04 or higher)

Prerequisites

RStudio requires a previous installation of R version 2.11.1 or higher. To install R you should use the following command:

```
$ sudo apt-get install r-base
```

This will install the version of R corresponding to the Ubuntu version you are currently running. If you want to install the latest version of R from CRAN you should follow the instructions [here](#).

Download and Install

To download and install RStudio Server open a terminal window and execute the commands corresponding to the 32 or 64-bit version as appropriate.

32-bit Size: 5 MB MD5: e565d660c1edf83f191562e94d7f59f7

```
$ wget https://s3.amazonaws.com/rstudio-server/rstudio-server-0.92.23-i386.deb
$ sudo dpkg -i rstudio-server-0.92.23-i386.deb
```

64-bit Size: 5 MB MD5: 438e6977e7663850543905b6838a4f1d

```
$ wget https://s3.amazonaws.com/rstudio-server/rstudio-server-0.92.23-amd64.deb
$ sudo dpkg -i rstudio-server-0.92.23-amd64.deb
```

After installing please see the [Getting Started](#) document for information configuring and managing the server.

RedHat/CentOS (5.4 or higher)

Prerequisites

RStudio Server has several dependencies on packages (including R itself) found in the [Extra Packages for Enterprise Linux](#) (EPEL) repository. If you don't already have this repository available you can add it to your system using the following command:

```
$ sudo rpm -Uvh http://download.fedora.redhat.com/pub/epel/5/i386/epel-release-5-4.noarch.rpm
```

You should ensure that you have installed the version of R available from EPEL. You can do this using the following command:

```
$ sudo yum install R
```

Download and Install

To download and install RStudio Server open a terminal window and execute the commands corresponding to the 32 or 64-bit version as appropriate.

32-bit Size: 5 MB MD5: 0bd2161d21a97223821dbac746bb8e56

```
$ wget https://s3.amazonaws.com/rstudio-server/rstudio-server-0.92.23-i686.rpm
```

```
$ sudo rpm -Uvh rstudio-server-0.92.23-i686.rpm
```

64-bit Size: 5 MB MD5: 57f4ec0042e581ff87fe30f13a8cb69a

```
$ wget https://s3.amazonaws.com/rstudio-server/rstudio-server-0.92.23-x86_64.rpm  
$ sudo rpm -Uvh rstudio-server-0.92.23-x86_64.rpm
```

After installing please see the [Getting Started](#) document for information on configuring and managing the server.

Other Platforms

To install RStudio on other platforms you will need to build and install from source. Note that while it is likely that RStudio will correctly compile and install on your target platform the only platforms currently tested and certified are Ubuntu and RedHat/CentOS.

Source code for RStudio is available at <https://github.com/rstudio/rstudio>.

The INSTALL file within the source distribution contains additional instructions on how to build and install from source. After successfully performing a `make install` you should also be sure to install the additional scripts and configuration files found within the `src/server/extras` directory (the INSTALL file describes these extras in more detail).



Working in the Console

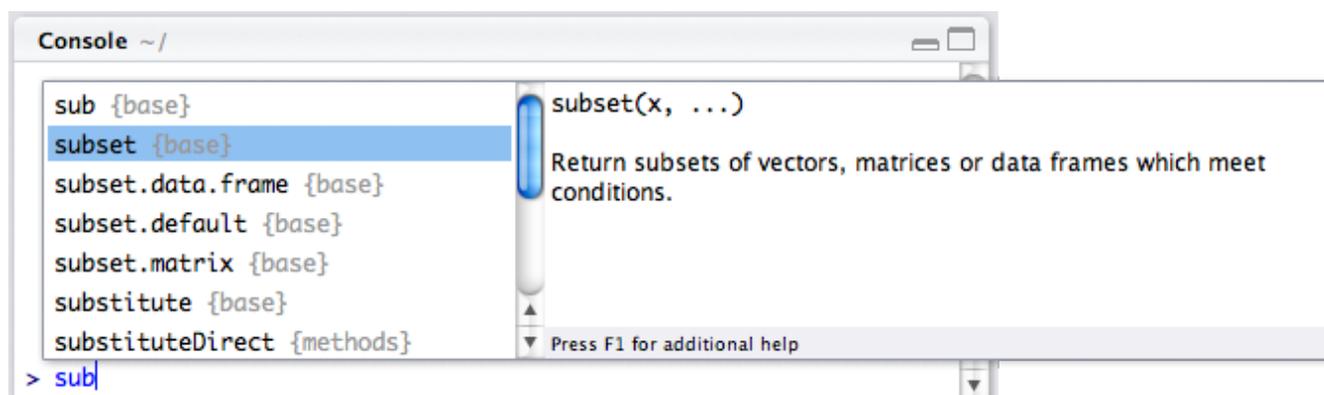
Overview

The RStudio console includes a variety of features intended to make working with R more productive and straightforward. This article reviews these features. Learning to use these features along with the related features available in the [Source](#) and [History](#) panes can have a substantial payoff in your overall productivity with R.

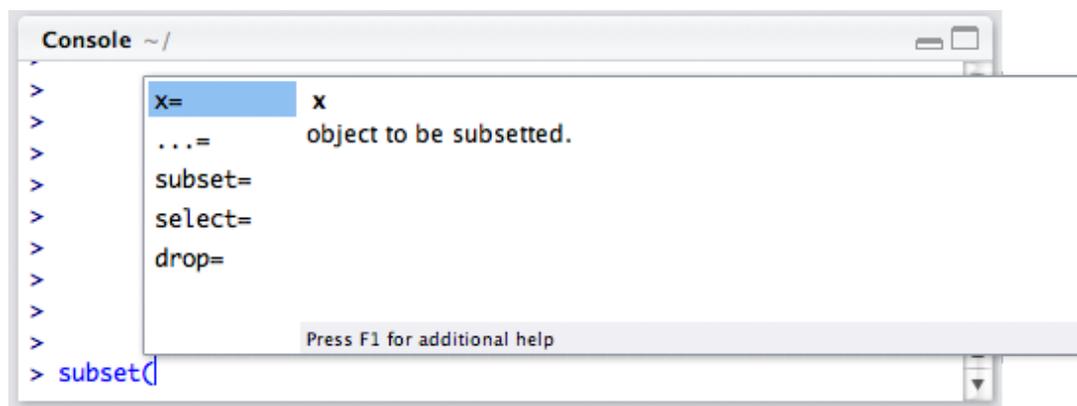
Code Completion

RStudio supports the automatic completion of code using the Tab key. For example, if you have an object named `pollResults` in your workspace you can type `poll` and then Tab and RStudio will automatically complete the full name of the object.

The code completion feature also provides inline help for functions whenever possible. For example, if you typed `sub` then pressed Tab you would see:



Code completion also works for function arguments, so if you typed `subset(` and then pressed Tab you'd see the following:



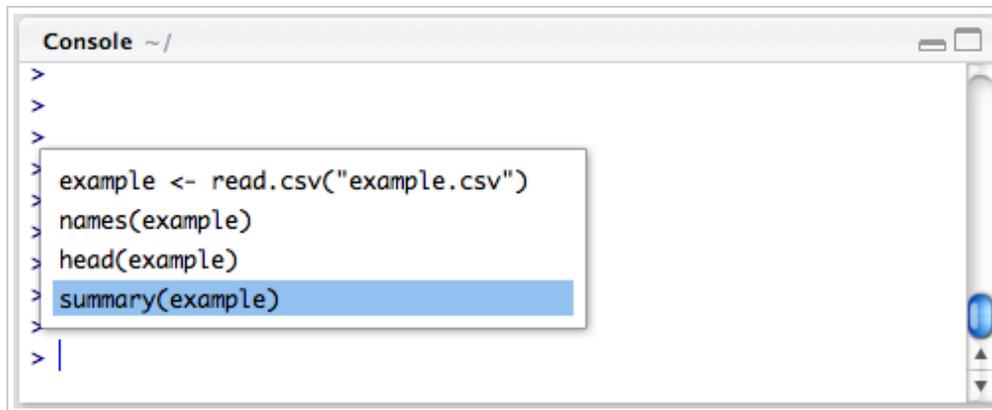
Retrieving Previous Commands

As you work with R you'll often want to re-execute a command which you previously entered. As with the standard R console, the RStudio console supports the ability to recall previous commands using the arrow keys:

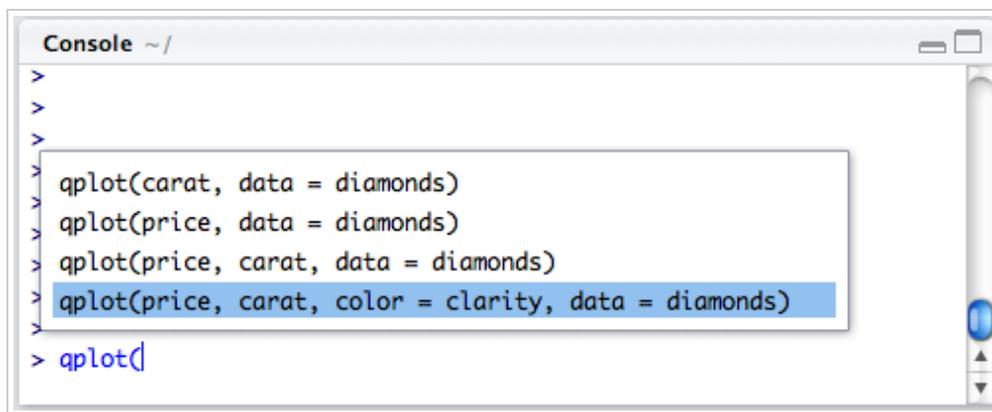
- Up — Recall previous command(s)

- Down — Reverse of Up

If you wish to review a list of your recent commands and then select a command from this list you can use Ctrl-Up to review the list (note that on the Mac you can also use Command-Up):



You can also use this same keyboard shortcut to quickly search for commands that match a given prefix. For example, to search for previous instances of the `plot` function simply type `plot` and then Ctrl-Up:



Console Title Bar

This screenshot illustrates a few additional capabilities provided by the Console title bar:

- Display of the current working directory.
- The ability to interrupt R during a long computation.
- Minimizing and maximizing the Console in relation to the Source pane (using the buttons at the top-right or by double-clicking the title bar).



Keyboard Shortcuts

Beyond the history and code-completion oriented keyboard shortcuts described above, there are a wide variety of other shortcuts available. Some of the more useful shortcuts include:

- Ctrl-1 — Move focus to the Console
- Ctrl-2 — Move focus to the Source Editor
- Ctrl-L — Clear the Console
- Esc — Interrupt R

You can find a list of all shortcuts in the [Keyboard Shortcuts](#) article.

Related Topics

- [Editing and Executing Code](#)
- [Using Command History](#)



Editing and Executing Code

Overview

RStudio's source editor includes a variety of productivity enhancing features including syntax highlighting, code completion, multiple-file editing, and find/replace.

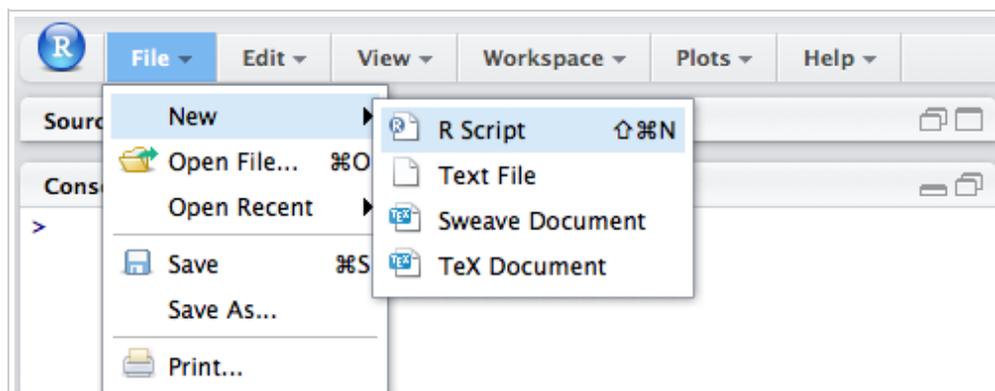
RStudio also enables you to flexibly execute R code directly from the source editor. For many R developers this represents their preferred way of working with R. By executing commands from within the source editor rather than the console it is much easier to reproduce sequences of commands as well as package them for re-use as a function. These features are described in the [Executing Code](#) section below.

Managing Files

RStudio supports syntax highlighting and other specialized code-editing features for the following types of files:

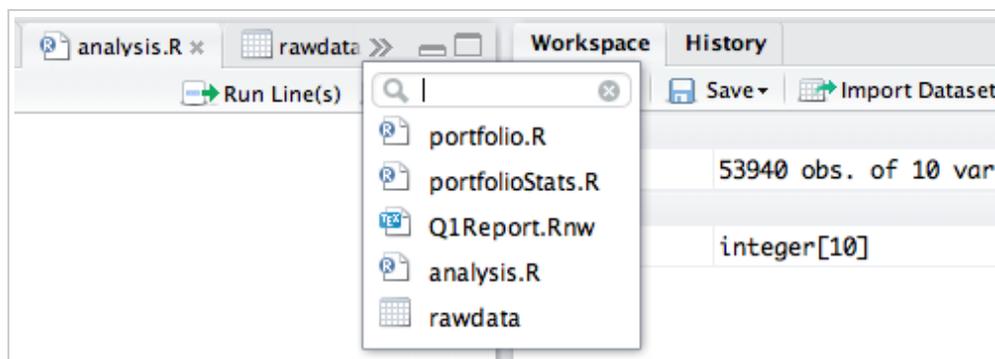
- R scripts
- Sweave documents
- TeX documents

To create a new file you use the File -> New menu:



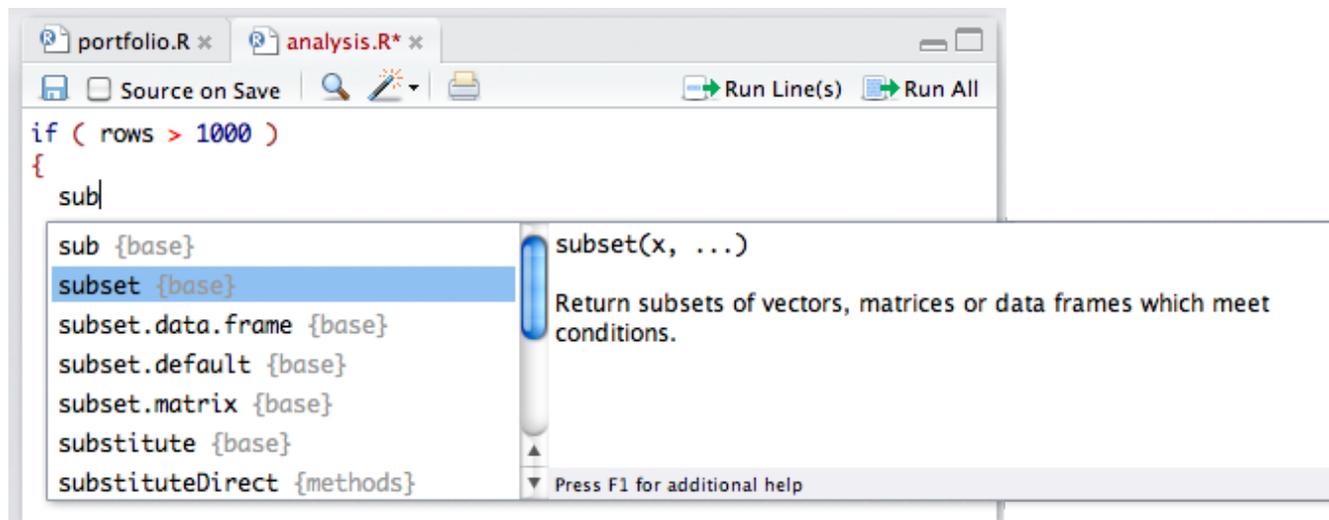
To open an existing file you use either the File -> Open menu or the Open Recent menu to select from recently opened files.

If you open several files within RStudio they are all available as tabs to facilitate quick switching between open documents. If you have a large number of open documents you can also navigate between them using the >> icon on the tab bar or the View -> Switch to Tab) menu item:



Code Completion

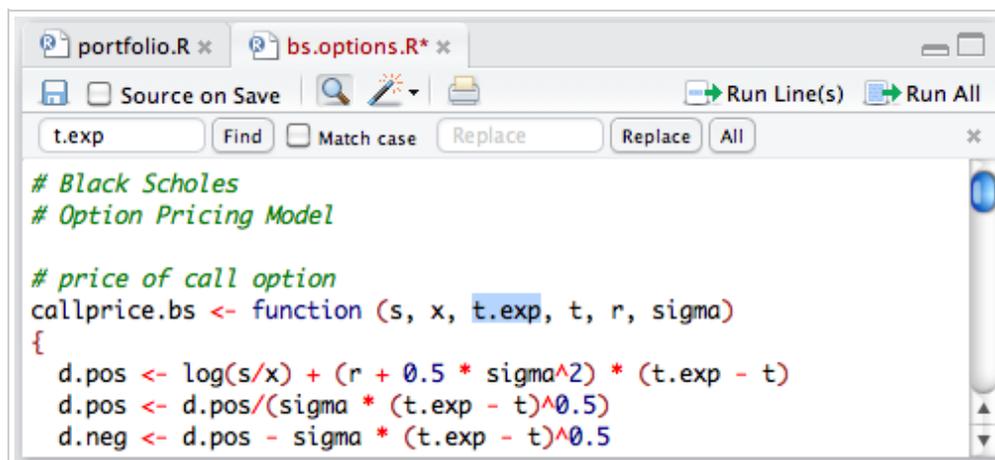
RStudio supports the automatic completion of code using the Tab key. For example, if you have an object named `pollResults` in your workspace you can type `poll` and then Tab and RStudio will automatically complete the full name of the object.



Code completion also works in the console, and more details on using it can be found the console [Code Completion](#) documentation.

Find and Replace

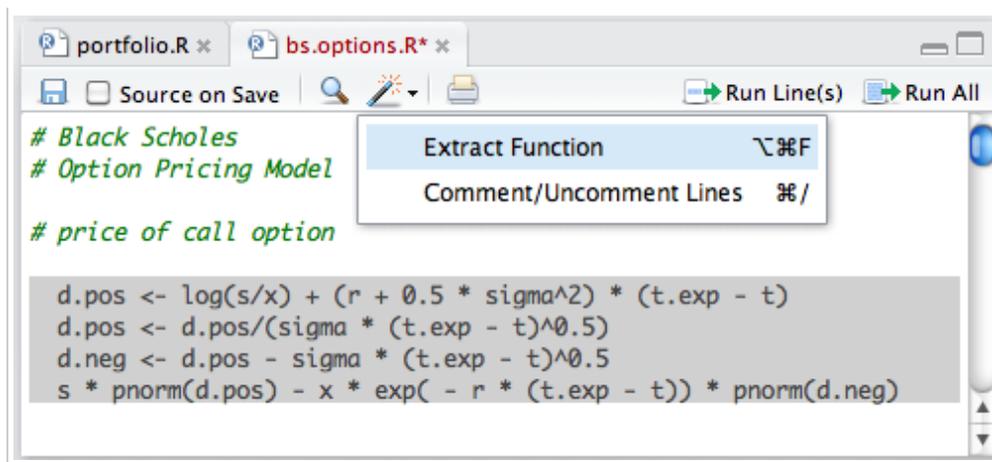
RStudio supports finding and replacing text within source documents:



Find and replace can be opened using the `Ctrl-F` shortcut key, or from the Edit -> Find and Replace menu item.

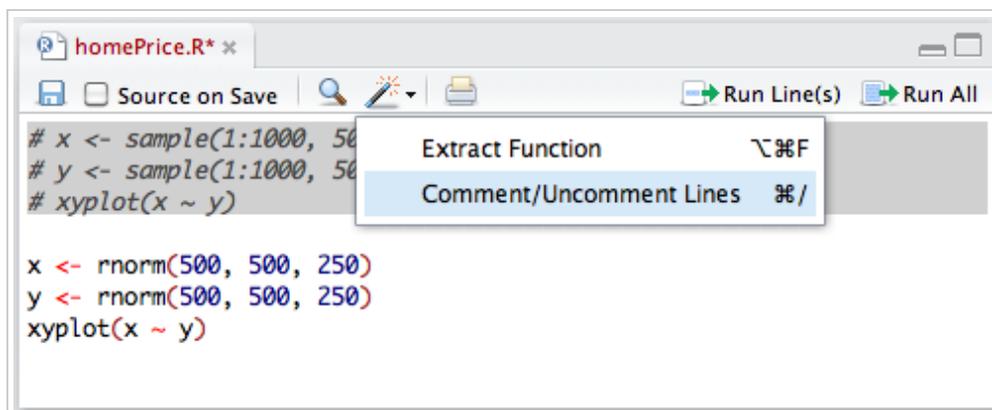
Extract Function

RStudio can analyze a selection of code from within the source editor and automatically convert it into a re-usable function. Any "free" variables within the selection (objects that are referenced but not created within the selection) are converted into function arguments:



Comment/Uncomment

You can comment and uncomment entire selections of code using the Edit -> Comment/Uncomment Lines menu item (you can also do this using the Ctrl-/ keyboard shortcut):

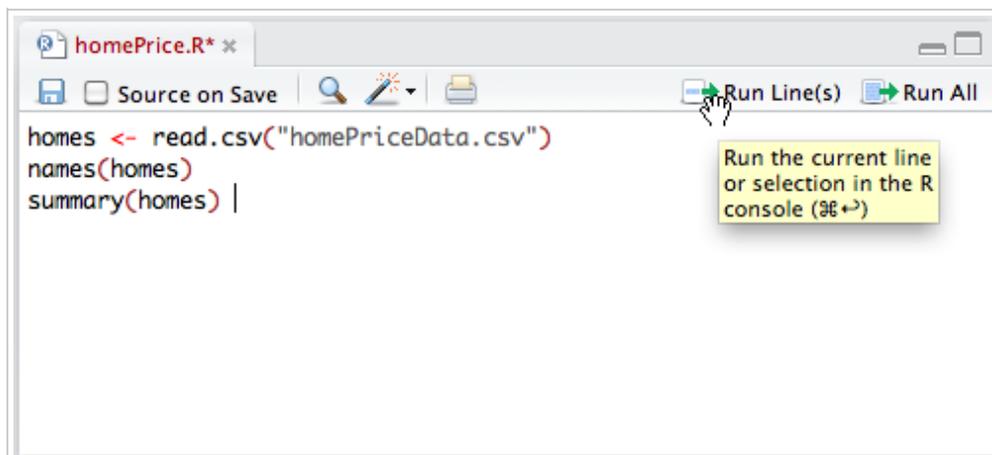


Executing Code

RStudio supports the direct execution of code from within the source editor (the executed commands are inserted into the console where their output also appears).

Executing a Single Line

To execute the line of source code where the cursor currently resides you press the Ctrl-Enter key (or use the Run Line(s) toolbar button):

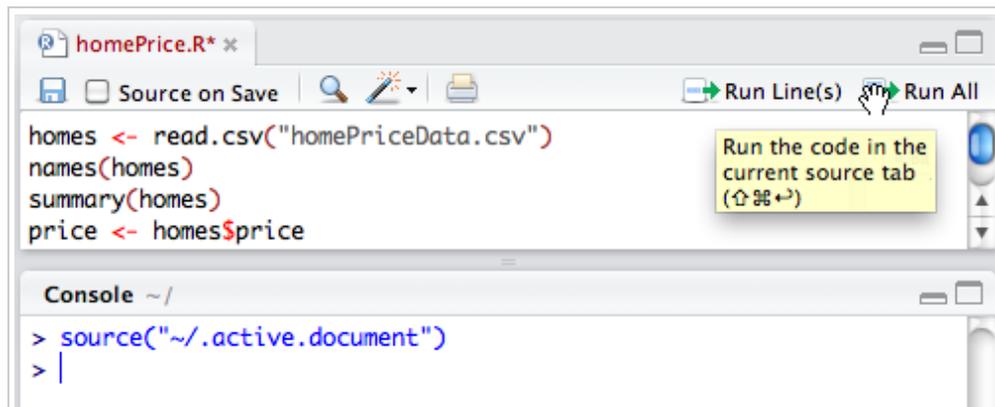


After executing the line of code, RStudio automatically advances the cursor to the next line. This enables you to single-step through a sequence of lines.

Executing Multiple Lines

There are two ways to execute multiple lines from within the editor:

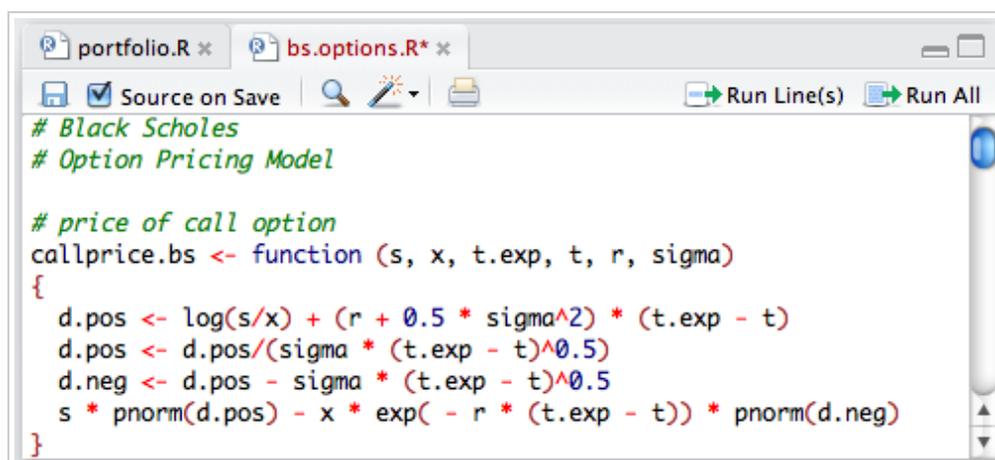
- Select the lines and press the **Ctrl-Enter** key (or use the **Run Line(s)** toolbar button); or
- To run the entire document press the **Ctrl-Shift-Enter** key (or use the **Run All** toolbar button).



The difference between running lines from a selection and invoking Run All is that when running a selection all lines are inserted directly into the console whereas for Run All the file is saved to a temporary location and then sourced into the console from there (thereby creating less clutter in the console).

Source on Save

When editing re-usable functions (as opposed to freestanding lines of R) you may wish to set the **Source on Save** option for the document (available on the toolbar next to the Save icon). Enabling this option will cause the file to automatically be sourced into the global environment every time it is saved:



Setting **Source on Save** ensures that the copy of a function within the global environment is always in sync with its source, and also provides a good way to arrange for frequent syntax checking as you develop a function.

Keyboard Shortcuts

Beyond the keyboard shortcuts described above, there are a wide variety of other shortcuts available. Some of the more useful ones include:

- Ctrl-Shift-N — New document
- Ctrl-O — Open document
- Ctrl-S — Save active document
- Ctrl-1 — Move focus to the Console
- Ctrl-2 — Move focus to the Source Editor

You can find a list of all shortcuts in the [Keyboard Shortcuts](#) article.

Related Topics

- [Working in the Console](#)
- [Using Command History](#)

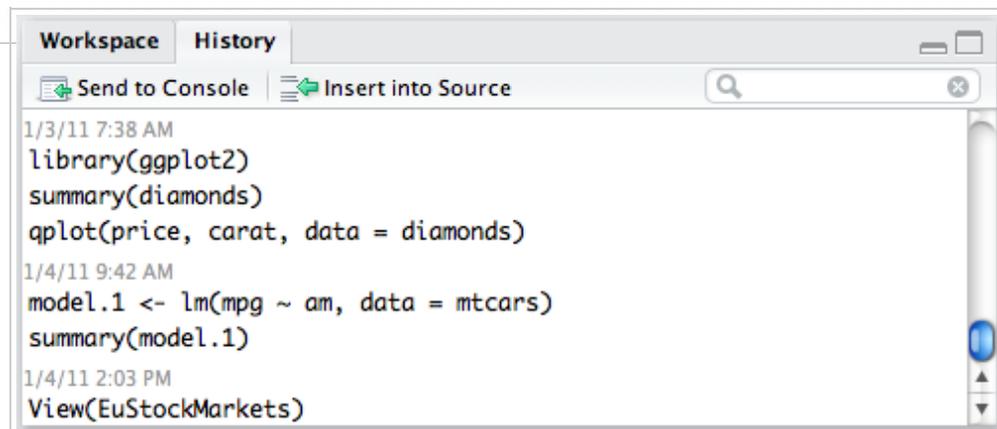


Using Command History

RStudio maintains a database of all commands which you have ever entered into the Console. You can browse and search this database using the History pane.

Browsing History

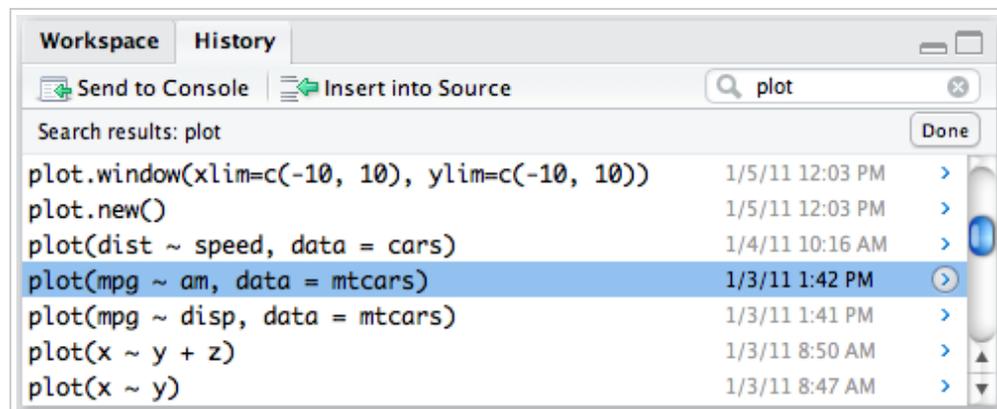
Commands you have previously entered in the RStudio console can be browsed from the History tab. The commands are displayed in order (most recent at the bottom) and grouped by block of time:



Searching History

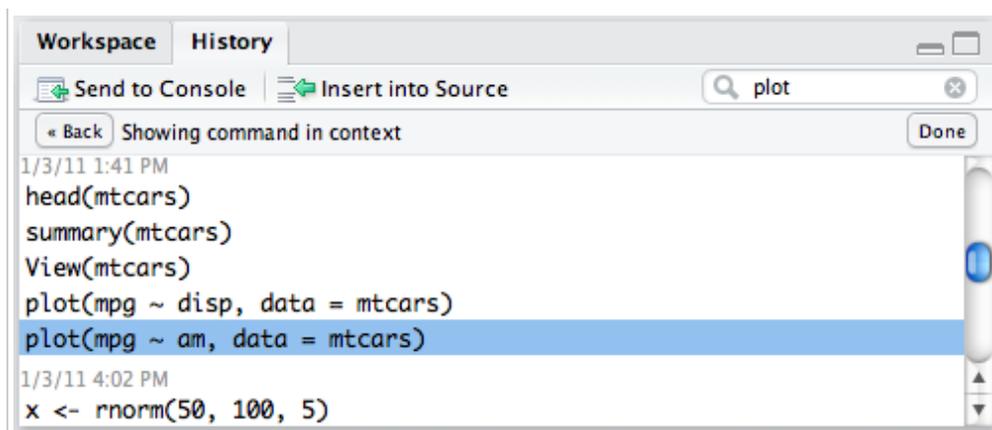
Executing a Search

You can use the search box at the top right of the history tab to search for all instances of a previous command (e.g. `plot`). The search can be further refined by adding additional words separated by spaces (e.g. the name of particular dataset):



Showing Command Context

After searching for a command within your history you may wish to view the other commands that were executed in proximity to it. By clicking the arrow in the right margin of the search results you can view the command within its context:

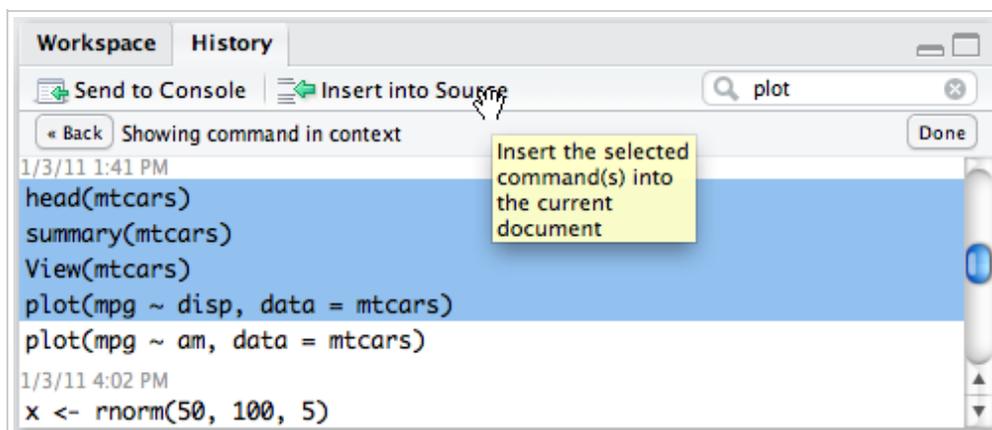


Using Commands

Commands selected within the History pane can be used in two fashions (corresponding to the two buttons on the left side of the History toolbar):

- **Send to Console**— Sends the selected command(s) to the Console. Note that the commands are inserted into the Console however they are not executed until you press Enter.
- **Insert into Source**— Inserts the selected command(s) into the currently active Source document. If there isn't currently a Source document available then a new untitled one will be created.

Within the history list you can select a single command or multiple commands:



Related Topics

- [Working in the Console](#)
- [Editing and Executing Code](#)



Keyboard Shortcuts

Console

Description	Windows & Linux	Mac
Put the cursor in the console	Ctrl+I	Ctrl+I
Clear console	Ctrl+L	Command+L
Move cursor to beginning of line	Home	Command+Left
Move cursor to end of line	End	Command+Right
Navigate command history	Up/Down	Up/Down
Popup command history	Ctrl+Up	Command+Up
Interrupt currently executing command	Esc	Esc
Yank line up to cursor	Ctrl+U	Command+U
Yank line after cursor	Ctrl+K	Command+K
Insert currently yanked text	Ctrl+Y	Command+Y

Source

Description	Windows & Linux	Mac
Put the cursor in the Source document	Ctrl+2	Ctrl+2
New document (except on Chrome/Windows)	Ctrl+Shift+N	Command+Shift+N
Open document	Ctrl+O	Command+O
Save active document	Ctrl+S	Command+S
Close active document	Ctrl+Shift+L	Command+Shift+L
Run current line/selection	Ctrl+Enter	Command+Enter
Run current document	Ctrl+Shift+Enter	Command+Shift+Enter
Switch to tab	Ctrl+Alt+Down	Ctrl+Option+Down
Previous tab	Ctrl+Alt+Left	Ctrl+Option+Left
Next tab	Ctrl+Alt+Right	Ctrl+Option+Right
First tab	Ctrl+Shift+Alt+Left	Ctrl+Shift+Option+Left
Last tab	Ctrl+Shift+Alt+Right	Ctrl+Shift+Option+Right
Extract function from selection	Ctrl+Alt+F	Command+Option+F
Comment/uncomment current line/selection	Ctrl+/ /	Command+/ /
Transpose Letters		Ctrl+T
Jump to Word	Ctrl+Left/Right	Option+Left/Right
Jump to Start/End	Ctrl+Home/End or Ctrl+Up/Down	Command+Home/End or Command+Up/Down

Delete Line	Ctrl+D	Command+D
Move Lines Up/Down	Alt+Up/Down	Option+Up/Down
Copy Lines Up/Down	Ctrl+Alt+Up/Down	Command+Option+Up/Down
Select	Shift+[Arrow]	Shift+[Arrow]
Select Word	Ctrl+Shift+Left/Right	Option+Shift+Left/Right
Select to Line Start	Shift+Home	Command+Shift+Left or Shift+Home
Select to Line End	Shift+End	Command+Shift+Right or Shift+End
Select Page Up/Down	Shift+PageUp/PageDown	Shift+PageUp/Down
Select to Start/End	Shift+Alt+Up/Down	Command+Shift+Up/Down
Delete Word Left		Option+Backspace or Ctrl+Option+Backspace
Delete Word Right		Option+Delete
Delete to Line End		Ctrl+K
Delete to Line Start		Option+Backspace
Indent	Tab (at beginning of line)	Tab (at beginning of line)
Outdent	Shift+Tab	Shift+Tab

Editing (Console and Source)

Description	Windows & Linux	Mac
Undo	Ctrl+Z	Command+Z
Redo	Ctrl+Shift+Z	Command+Shift+Z
Cut	Ctrl+X	Command+X
Copy	Ctrl+C	Command+C
Paste	Ctrl+V	Command+V
Select All	Ctrl+A	Command+A

Completions (Console and Source)

Description	Windows & Linux	Mac
Attempt completion	Tab or Ctrl+Space	Tab or Command+Space
Navigate candidates	Up/Down	Up/Down
Accept selected candidate	Enter, Tab, or Right	Enter, Tab, or Right
Show help for selected candidate	F1	F1
Dismiss completion popup	Esc	Esc

Views

Description	Windows & Linux	Mac
Move cursor to source	Ctrl+1	Ctrl+1
Move cursor to console	Ctrl+2	Ctrl+2
Show workspace	Ctrl+3	Ctrl+3
Show data	Ctrl+4	Ctrl+4
Show history	Ctrl+5	Ctrl+5

Show files	Ctrl+6	Ctrl+6
Show plots	Ctrl+7	Ctrl+7
Show packages	Ctrl+8	Ctrl+8
Show help	Ctrl+9	Ctrl+9

Plots

Description	Windows & Linux	Mac
Previous plot	Ctrl+PageUp	Command+PageUp
Next plot	Ctrl+PageDown	Command+PageDown



Using Different Versions of R

NOTE: This article is only applicable if you are using RStudio as a standalone desktop application. If you are running RStudio within a web browser then the version of R is determined by whatever version of R is running alongside RStudio Server.

Overview

RStudio is compatible with R versions 2.11.1 or higher. Since R versions can be installed side-by-side on a workstation, RStudio needs to select which version of R to run against. The way this occurs varies between platforms, this article covers how version selection is handled on each platform.

Windows

By default on Windows RStudio respects the system's current default version of R. However, this default behavior can be overridden. When R is installed on Windows it writes the version being installed to the Registry as the "current" version of R (the specific registry keys written are described [here](#)). This is the version of R which RStudio uses in its default configuration.

You can override which version of R is used via the Edit : Preferences dialog. This dialog allows you to specify that RStudio either always bind to the current 32 or 64 bit version, or specify a different 32 or 64-bit version altogether.

Mac OS X

On OSX RStudio respects the system's current default version of R. The current default version is determined by the directory alias found at `/Library/Frameworks/R.framework/Versions/Current`. To change which version this alias points to (and thereby change which version R.app and RStudio point to) you should run the OSX installer for the version of R you want to make current.

Linux

Binary Installations

On Linux systems where RStudio is installed using a package manager (i.e. Ubuntu, Fedora, Red Hat, etc) RStudio binds to the version of R previously installed by the package manager. For example, on Ubuntu RStudio binds to the version of the `r-base` package currently installed.

Often times the version of R provided by the default package repository is a version or two behind the current version of R available from CRAN. If you want to upgrade your system to use a more recent version of R you can follow the links at <http://cran.r-project.org/bin/linux/> for instructions on how to do this for your distribution.

Source Installations

When RStudio is built and installed from source code it probes the system for a version of R during configuration. This probe is done by executing the R shell command, so whichever version of R linked to by e.g. `/usr/bin/R` will be used.



Optimizing your Browser for RStudio

NOTE: This article is only applicable if you are using the RStudio IDE within a web browser (as opposed to using RStudio as a standalone desktop application).

Run a Recent Browser Version

RStudio makes use of a number of advanced web browser features and as a result benefits from running within more up-to-date browser versions. The following are the recommend minimum versions for various browsers:

- [Firefox 3.5](#)
- [Safari 4.0](#)
- [Google Chrome 5.0](#)
- [Internet Explorer 8.0](#)

While RStudio is compatible with Internet Explorer, other browsers provide an improved user experience through faster JavaScript performance and more consistent handling of browser events. We therefore recommend that, when possible, RStudio be used with Firefox, Safari, or Google Chrome.

Disable Pop-Up Blockers

There are a number of instances where RStudio needs to show a new external popup window (e.g to display a PDF file). We therefore recommend that you disable pop-up blocking for the RStudio domain. Most browsers (including Internet Explorer and Firefox) will prompt you regarding whether you want to enable popups for RStudio the first time one is blocked. Other browsers such as Safari may require you to globally enable and disable popups.

Safari and Chrome: Disable Browser Spell Checking

If you are using Safari or Chrome, you may find it desirable to disable "Check Spelling While Typing" (available from the Edit menu) since many of the words you enter in the Source and Console will not be in the built-in dictionary and thus will show up with a red underline when entered.

Firefox for Mac: Install Inline PDF Extension

Firefox for the Mac does not display PDFs inline by default (rather they are downloaded like any other file). RStudio uses PDFs for both printing plots as well as for Sweave/LaTeX documents and having them display inline is much preferred. To enable this you should install the following Firefox extension:

<http://code.google.com/p/firefox-mac-pdf/>



Uploading and Downloading Files

NOTE: This article is only applicable if you are using the RStudio IDE within a web browser (as opposed to using RStudio as a standalone desktop application).

Uploading Files

To upload datasets, scripts, or other files to RStudio Server you should take the following steps:

1. **Switch to the Files pane**
2. **Navigate to the directory you wish to upload files into**
3. **Click the Upload toolbar button**
4. **Choose the file you wish to upload and press OK**

Note that if you wish to upload several files or even an entire folder, you should first compress your files or folder into a zip file and then upload the zip file (when RStudio receives an uploaded zip file it automatically uncompresses it).

Downloading Files

To download files from RStudio Server you should take the following steps:

1. **Switch to directory you want to download files from within the Files pane**
2. **Select the file(s) and/or folder(s) you want to download**
3. **Click More -> Export on the toolbar**
4. **You'll then be prompted with a default file name for the download. Either accept the default or specify a custom name then press OK.**

Note that if you select multiple files or folders for download then RStudio compresses all of the files into a single zip archive for downloading.



RStudio Server: Getting Started

Overview

RStudio Server enables you to provide a browser based interface (the RStudio IDE) to a version of R running on a remote Linux server. Deploying R and RStudio on a server has a number of benefits, including:

- The ability to access your R workspace from any computer in any location;
- Easy sharing of code, data, and other files with colleagues;
- Allowing multiple users to share access to the more powerful compute resources (memory, processors, etc.) available on a well equipped server; and
- Centralized installation and configuration of R, R packages, TeX, and other supporting libraries.

RStudio Server works with recent versions of popular Linux distributions including Red Hat and Ubuntu. RStudio Server can also be built and installed from source on other platforms (see notes on this below).

Download and Install

RStudio Server binary packages are available for recent versions of popular Linux distributions including Ubuntu (version 10.04 or higher) and RedHat/CentOS (version 5.4 or higher). For other platforms it is also possible to build and install from source.

Instructions for downloading and installing RStudio Server can be found on the [server downloads](#) page.

Accessing the Server

By default RStudio Server runs on port 8787 and accepts connections from all remote clients. After installation you should therefore be able to navigate a web browser to the following address to access the server:

```
http://<server-ip>:8787
```

RStudio will prompt for a username and password, and will authenticate the user by checking the server's username and password database. Note that user credentials are encrypted using RSA as they travel over the network.

Configuration and Management

RStudio Server has a variety of configuration options (including the ability to change what port the server listens on) as well as a utility for managing the lifetime of the server and remote user sessions. You can find out more about these capabilities in the following articles:

- [Configuring the Server](#)
- [Managing the Server](#)

If you are running RStudio on a public network you may wish deploy RStudio behind another server (e.g. [Nginx](#) or [Apache](#)) which acts as a reverse proxy to it. You can find out more about doing this in the following article:

- [Running with a Proxy](#)



RStudio Server: Configuring the Server

Overview

RStudio is configured by adding entries to two configuration files (note that these files do not exist by default so you will need to create them if you wish to specify custom settings):

```
/etc/rstudio/rserver.conf  
/etc/rstudio/rsession.conf
```

After editing configuration files you should perform a check to ensure that the entries you specified are valid. This can be accomplished by executing the following command:

```
$ sudo rstudio-server test-config
```

Note that this command is also automatically executed when starting or restarting the server (those commands will fail if the configuration is not valid).

Changing Network Port and Address

After initial installation RStudio accepts connections on port 8787. If you wish to change to another port you should create an `/etc/rstudio/rserver.conf` file (if one doesn't already exist) and add a `www-port` entry corresponding to the port you want RStudio to listen on. For example:

```
www-port=80
```

By default RStudio binds to address 0.0.0.0 (accepting connections from any remote IP). You can modify this behavior using the `www-address` entry. For example:

```
www-address=127.0.0.1
```

Note that after editing the `/etc/rstudio/rserver.conf` file you should always restart the server to apply your changes (and validate that your configuration entries were valid). You can do this by entering the following command:

```
$ sudo rstudio-server restart
```

Setting User Limits

There are a number of settings which place limits on which users can access RStudio and the amount of resources they can consume. This file does not exist by default so if you wish to specify any of the settings below you should create the file.

To limit the users who can login to RStudio to the members of a specific group, you use the `auth-required-user-group` setting. For example:

```
auth-required-user-group=rstudio_users
```

You can also limit the total memory, stack size, and number of simultaneous child processes for users using settings like the following:

```
rsession-memory-limit-mb=4000
```

```
rsession-stack-limit-mb=10  
rsession-process-limit=100
```

Additional Settings

There is a separate `/etc/rstudio/rsession.conf` configuration file that enables you to control various aspects of remote R sessions (note that as with `rserver.conf` this file does not exist by default). These settings are especially useful if you have a large number of potential users and want to make sure that resources are balanced appropriately.

By default if a user hasn't issued a command for 2 hours RStudio will suspend that user's R session to disk so they are no longer consuming server resources (the next time the user attempts to access the server their session will be restored). You can change the timeout (including disabling it by specifying a value of 0) using the `session-timeout-minutes` setting. For example:

```
session-timeout-minutes=30
```

You can limit the size of file uploads using the `limit-file-upload-size-mb` setting. For example:

```
limit-file-upload-size-mb=100
```

If you are using the XFS filesystem and you have disk quotas enabled you can have RStudio notify the user when they are close to their soft and/or hard quota by specifying the `limit-xfds-disk-quota` setting. For example:

```
limit-xfds-disk-quota=1
```

Finally, you can set the default CRAN repository for the server using the `r-cran-repos` setting. For example:

```
r-cran-repos=http://cran.case.edu/
```

Note again that the above settings should be specified in the `/etc/rstudio/rsession.conf` file (rather than the aforementioned `rserver.conf` file).

Related Topics

- [Getting Started](#)
- [Managing the Server](#)
- [Running with a Proxy](#)



RStudio Server: Managing the Server

Overview

RStudio server management tasks are performed using the `rstudio-server` utility (installed under `/usr/sbin` in binary distributions). This utility enables the stopping, starting, and restarting of the server, enumeration and suspension of user sessions, taking the server offline, as well as the ability to hot upgrade a running version of the server.

Stopping and Starting

If you installed RStudio using a package manager binary (e.g. a Debian package or RPM) then RStudio is automatically registered as a daemon which starts along with the rest of the system. On Ubuntu this registration is performed using an Upstart script at `/etc/init/rstudio-server.conf`. On other systems an `init.d` script is installed at `/etc/init.d/rstudio-server`.

To manually stop, start, and restart the server you use the following commands:

```
$ sudo rstudio-server stop
$ sudo rstudio-server start
$ sudo rstudio-server restart
```

Managing Active Sessions

There are a number of administrative commands which allow you to see what sessions are active and request suspension of running sessions (note that session data is not lost during a suspend).

To list all currently active sessions:

```
$ sudo rstudio-server active-sessions
```

To suspend an individual session:

```
$ sudo rstudio-server suspend-session <pid>
```

To suspend all running sessions:

```
$ sudo rstudio-server suspend-all
```

The suspend commands also have a "force" variation which will send an interrupt to to the session to request the termination of any running R command:

```
$ sudo rstudio-server force-suspend-session <pid>
$ sudo rstudio-server force-suspend-all
```

The `force-suspend-all` command should be issued immediately prior to any reboot so as to preserve the data and state of active R sessions across the restart.

Taking the Server Offline

If you need to perform system maintenance and want users to receive a friendly message indicating the server is offline you can issue the following command:

```
$ sudo rstudio-server offline
```

When the server is once again available you should issue this command:

```
$ sudo rstudio-server online
```

Upgrading to a New Version

If you install RStudio using a package manager binary (e.g. a Debian package or RPM) and a version of RStudio Server is currently running on the system, then the current running version is automatically upgraded. This includes the following behavior:

- Running R sessions are suspended so that future interactions with the server automatically launch the updated R session binary
- Currently connected browser clients are notified that a new version is available and automatically refresh themselves.
- The core server binary is restarted

Related Topics

- [Getting Started](#)
- [Configuring the Server](#)
- [Running with a Proxy](#)



RStudio Server: Running with a Proxy

Overview

If you are running RStudio on a public network it is strongly recommended that you deploy RStudio behind another web server (e.g. Nginx or Apache) which acts as a reverse proxy to it. Doing this allows you to benefit from the the robust HTTP protocol handling built into the web server. This has both performance (e.g. keep-alive) and security (e.g. rejection of maliciously malformed requests) benefits.

Nginx Configuration

On Ubuntu a version of Nginx that supports reverse-proxying can be installed using the following command:

```
sudo apt-get install nginx
```

To enable an instance of Nginx running on the same server to act as a front-end proxy to RStudio you would add commands like the following to your `nginx.conf` file:

```
location / {
    proxy_pass http://localhost:8787;
    proxy_redirect http://localhost:8787/ $scheme://$host/;
}
```

After adding this entry you'll then need to restart Nginx so that the proxy settings take effect:

```
sudo /etc/init.d/nginx restart
```

Apache Configuration

To enable an instance of Apache running on the same server to act as a front-end proxy to RStudio you need to use the `mod_proxy`. The steps for enabling this module vary across operating systems so you should consult your distribution's Apache documentation for details.

On Ubuntu systems Apache can be installed with `mod_proxy` using the following commands:

```
sudo apt-get install apache2
sudo apt-get install libapache2-mod-proxy-html
sudo apt-get install libxml2-dev
```

Then, to update the Apache configuration files to activate `mod_proxy` you execute the following commands:

```
sudo a2enmod proxy
sudo a2enmod proxy_http
```

Once you have enabled `mod_proxy` in your Apache installation you need to add the required proxy commands to your `VirtualHost` definition. For example:

```
<VirtualHost *:80>

    <Proxy *>
        Allow from localhost
    </Proxy>
```

```
ProxyPass          / http://localhost:8787/  
ProxyPassReverse  / http://localhost:8787/  
  
</VirtualHost>
```

Note that if you want to serve RStudio from a custom path (e.g. /rstudio) you would replace the ProxyPass directives described above to:

```
ProxyPass          /rstudio/ http://localhost:8787/  
ProxyPassReverse  /rstudio/ http://localhost:8787/  
RedirectMatch permanent ^/rstudio$ /rstudio/
```

Finally, after you've completed all of the above steps you'll then need to restart Apache so that the proxy settings take effect:

```
sudo /etc/init.d/apache2 restart
```

RStudio Configuration

Once you are successfully proxying requests from Nginx or Apache to RStudio you should change the port RStudio listens on from 0.0.0.0 (all remote clients) to 127.0.0.1 (only the localhost). This ensures that the only way to connect to RStudio is through the proxy server. You can do this by adding the `www-address` entry to the `/etc/rstudio/rserver.conf` file as follows:

```
www-address=127.0.0.1
```

Note that this config file does not exist by default so you may need to create it if it doesn't already exist.

Related Topics

- [Getting Started](#)
- [Configuring the Server](#)
- [Managing the Server](#)



Getting Help with R

There are a number of good resources available on the web for both learning R and seeking answers to questions about how to accomplish various tasks. This article summarizes a few of the more helpful ones.

Learning R

If you are just learning R there are a number of good places to start:

- This [basic R tutorial](#) takes you step-by-step through the core functions of R.
- The CRAN [Introduction to R](#) provides a more complete and detailed overview of the entire R language.
- This article provides a nice [introduction to R for those coming from other languages](#).
- [The R Reference Card](#) provides a useful quick reference for how to perform common tasks in R.
- The Carnegie Mellon Open Learning Initiative has a free online [Introduction to Statistics](#) course has an option to do the exercises and labs using R.

If you have some familiarity with R and want to learn about the system or particular features in more depth these resources might be helpful.

- This Stack Overflow question provides some pointers to good [books for learning the R language](#).
- The CRAN [Contributed Documentation](#) page lists other manuals, tutorials, etc. provided by users of R.
- Once you've gained some familiarity with R, [The R Inferno](#) provides an entertaining roadmap to some of the deeper subtleties of the language and how to work with it most effectively.
- The [Google R Style Guide](#) provides some guidelines for writing readable and maintainable R code.

Asking Questions

A great place to start for any question about R is the [RSeek meta search engine](#), which provides a unified interface for searching the various sources of online R information. If there is an answer to question already available there is a good chance that RSeek can locate it.

If you aren't able to locate an answer using RSeek, the following are good places to find an answer or ask a question:

- The [R-help mailing list](#) is a very active list with questions and answers about problems and solutions using R. Before posting to the list you can also [search the list archives](#) to see if an answer already exists.
- Stack Overflow is also becoming an increasingly important resource for seeking [answers to questions about R](#).
- If you have a question that is more about statistical methodology there are also plenty of R users active on the [CrossValidated Q&A community](#).

Finding Packages

There are thousands of R packages [available from CRAN](#) but navigating them all can be a challenge. The following resources can help find the packages most appropriate for your tasks:

- [CRAN Task Views](#) provides comprehensive summaries of the packages most commonly used in various disciplines.
- [crantastic](#) is a community site for R packages where you can search for, review, and tag CRAN packages.

News and Information

The R community is growing rapidly and there are lots of new things happening all the time. If you want to stay on top of what's happening we recommend keeping up with the following sites:

- [R-bloggers](#) is a news site that combines posts from over 140 R bloggers. Almost everything that happens

in the R community is mentioned and discussed on R-bloggers.

- Users in the R community also frequently record videos of presentations, seminars, and user-groups. The [R Videos channel](#) run by Drew Conway is a great way to keep up with all of the available videos.



Product Overview

Welcome to RStudio

Note that this manual covers RStudio, for more on R check the "Getting Help with R" article.

[Link to FAQ & About pages](#)

Features

Outline of features with links to deeper articles as necessary

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Feature Highlights

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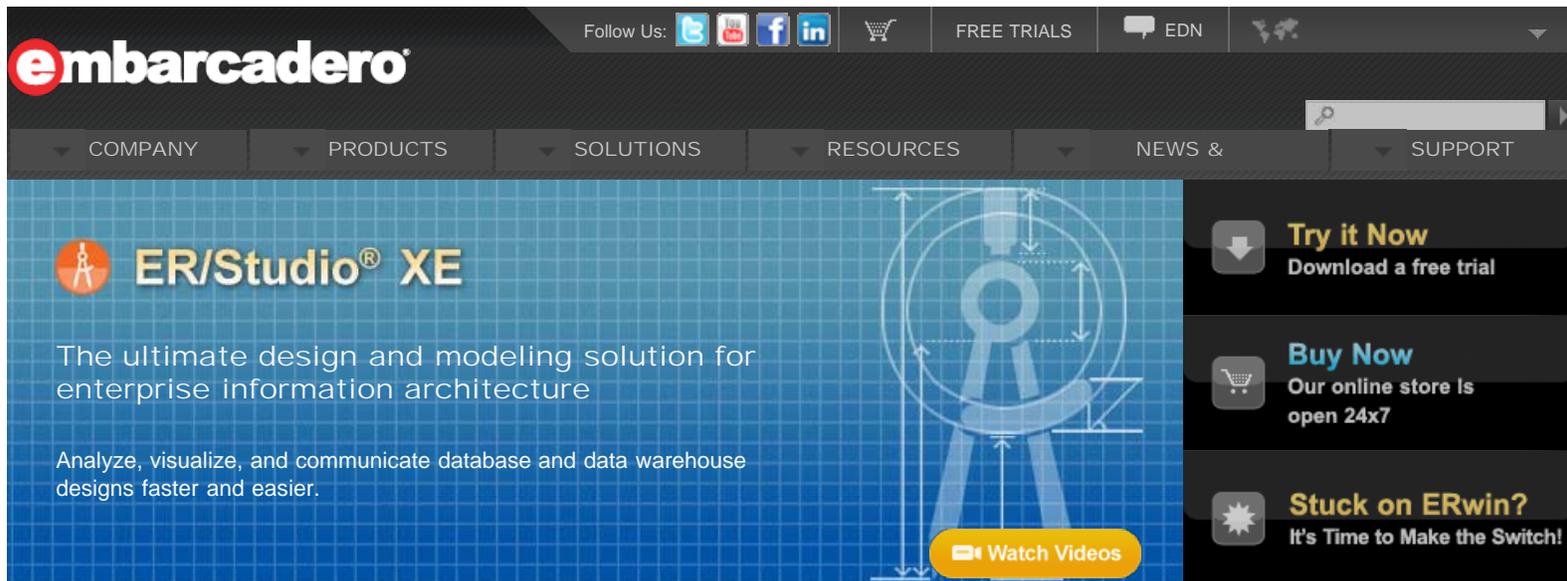
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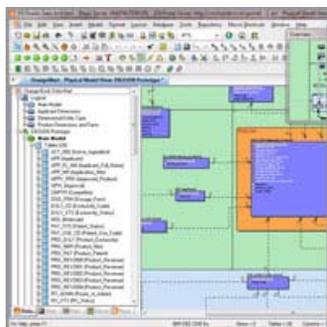
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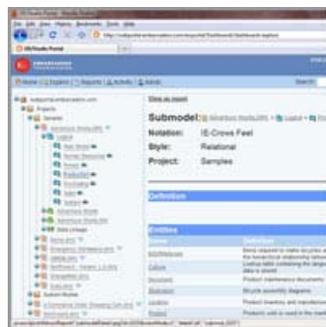
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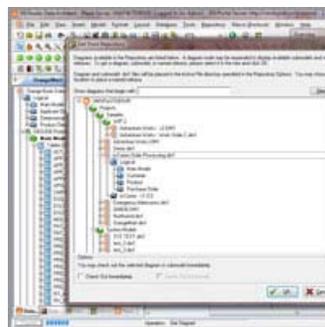
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Document, design, and communicate data assets faster and easier with ER/Studio's intuitive environment



Improve communication with distributed teams with a self-service metadata reporting portal



Streamline collaboration on data models in a team environment through a server-side repository

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Embarcadero All-Access 1.8 Trial				
Embarcadero® All-Access Trial (v1.8)				
All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.				
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Data modeling tool for designing and understanding your databases

ER/Studio helps data architects discover, document, and re-use data assets and gives you the power to easily reverse-engineer, analyze, and optimize existing databases.

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ER/Studio Data Architect

ER/Studio Data Architect is an industry-leading data modeling tool that enables companies to discover, document, and re-use data assets. With round-trip database support, data architects have the power to easily reverse-engineer, analyze, and optimize existing databases. ER/Studio Data Architect's strong reporting and communication capabilities help enforce organizational standards and achieve higher levels of productivity. Use ER/Studio for:

- Enterprise wide data lineage and traceability
- Automated model publication, communication and collaboration
- Round-trip engineering
- Multiplatform database lifecycle support

Ready to Upgrade to ER/Studio XE?

Combining process modeling, data modeling, UML modeling, a server-side repository, portal based search & reporting, metadata exchange and licensed tool management, upgrading to ER/Studio XE provides you all the tools you'll need to analyze, model and design your complex applications and databases. Learn more about [ER/Studio XE](#).

Stuck On an Outdated Modeling Tool?

Making the switch and upgrading to ER/Studio is simple and easy. Read more about upgrading from [ERwin](#) or [PowerDesigner](#).

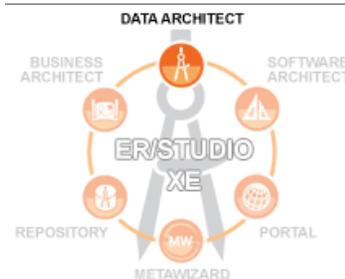
"With the onslaught of compliance regulations and the heightened need to understand and document data sources, the task of effectively tracing data lineages has never been more important. With its new Visual Data Lineage functionality, ER/Studio simplifies the way we trace data movement among databases and flat files, which ultimately helps us better understand the data assets within our government customers' organizations. This benefits us across numerous domains - facilitating data consolidation, SOA migration, FISMA compliance, and DIACAP needs." - Ron Lewis, Senior Security Analyst, CDO Technologies.

Key Features:

- Complete database lifecycle support for forward and reverse engineering
- Advanced bi-directional compare and merge for models and database structures
- Data dictionary standardization with domain inheritance, reusable objects, and automatic updates
- Data lineage support with visual documentation of source/target mapping
- "Where Used" analysis and user-defined mappings
- Nested and attribute level submodel management
- Customized XML schema generation
- Advanced diagram and layout engines
- Available add-on products for industry standard models/patterns
- Centralized license management and tool deployment with Embarcadero ToolCloud

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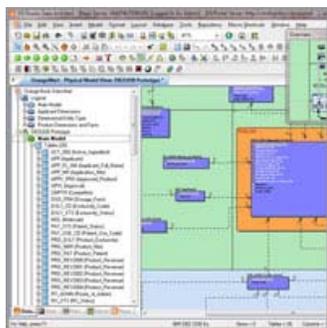
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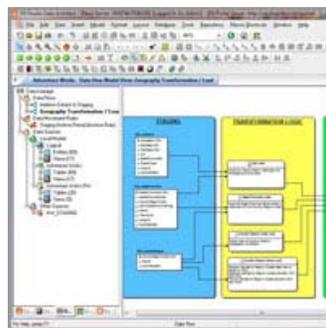
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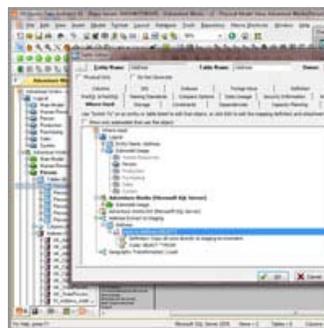
ER/Studio Data Architect 9.0



Document, design, and communicate data assets faster and easier



Improve data governance with visual data lineage



Impact Analysis through Where Used Technology

Learn more about other tools like [Universal Data Models](#), [ER/Studio MetaWizard](#), [ER/Studio Viewer](#) and other complimentary tools.

Revision Information:

- Current Version: 9.0
- Prior Version: 8.5.3
- Current Release: November 2010

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Embarcadero All-Access 1.8 Trial Embarcadero® All-Access Trial (v1.8) All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.					
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Real-world process and conceptual modeling

Create a graphical representation of your business from the core concepts that describe the business, to the processes that detail how your business operates.

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ER/Studio Business Architect

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- Business process modeling based on the BPMN standard
- Conceptual modeling for top-down data architecture
- Easily articulate business requirements
- Pragmatic approach to enterprise architecture

Key Features:

- Business process modeling with standard sequences, tasks, swimlane elements.
- Support for high-level conceptual modeling with subject areas, business entities, relationships and other elements
- Usage (CRUD) reporting to model business process and data objects
- Powerful and intuitive interface with organizational hierarchies to easily organize information
- Business artifact modeling
- Based on the BPMN specification
- Centralized license management and tool deployment with Embarcadero ToolCloud

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Need more than process and conceptual modeling? Upgrading to ER/Studio XE provides you the same process modeling, plus all the other tools needed to analyze, model and design your complex applications and databases . Learn more about [ER/Studio XE](#).

"Implementing the ER/Studio product line has saved me time and money by reducing the process complexity. . . Embarcadero continues to demonstrate its commitment to customers, delivering a solid and rapidly evolving data-modeling solution" - Grant Fitchey, Lead Database Administrator, One of the world's largest commercial and industrial insurance companies

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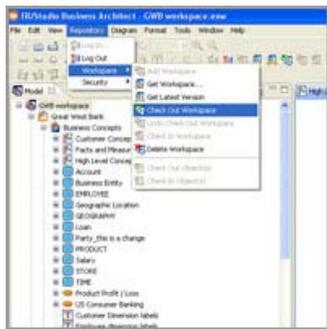
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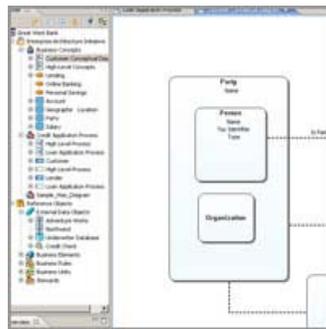
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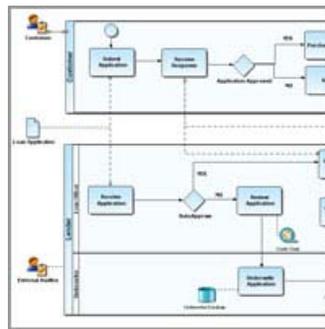
<p>BI/DW Resource Center</p> <p>Learn best practices from industry experts like Bill Inmon, Claudia Imhoff and Embarcadero's Jason Tiret on data modeling for BI and data warehousing</p>	<p>Stuck on ERwin?</p> <p>It's time to make the switch and it's easier than you think. Learn why so many companies have switched.</p>	<p>Try the ER/Studio Portal</p> <p>Try our hosted web portal for free. It's like Google® for your metadata with centralized self-service reporting and searching of ER/Studio metadata.</p>
<p>Integrated data and process modeling</p>	<p>Real World Process Modeling</p>	<p>Simple and easy-to-use modeling</p>



- Combines Process and data modeling into one repository for centralized model collaboration



- Clarify and document your core business concepts



- Create simple, semantically rich business process models

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Revision Information:

- Current Version: 1.7
- Prior Version: 1.6
- Current Release: November 2010

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ER/Studio Business Architect 1.7 Trial Embarcadero ER/Studio Business Architect is a process and conceptual modeling tool that enables architects to easily document business processes and how they access data.					
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UML modeling

Included in ER/Studio Enterprise and All-Access, ER/Studio Software Architect is used to visually analyze and design complex applications on the UML 2.0 specification

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ER/Studio Software Architect

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- Model-driven architecture and standards
- Industry-standard patterns
- Model audits and metrics
- Comprehensive documentation generation

Key Features:

- Supports UML 2.0 to visualize, construct, and document the artifacts of the distributed object systems
- OCL based model audits and metrics to support model inspections
- Supports Gang of Four design patterns
- Compare and Merge with Eclipse synchronization APIs for integration with version control systems
- Project documentation for pattern definitions and audit results
- Query/View/Transformations (QVT) to transform UML, BPMN, data models and customer model types
- Centralized license management and tool deployment with Embarcadero ToolCloud

"ER/Studio has saved me many, many hours of time. I can rely on it. There is no competition." - American Heart Association

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ER/Studio Software Architect

Complete UML modeling environment	Case Diagram	Pattern Support
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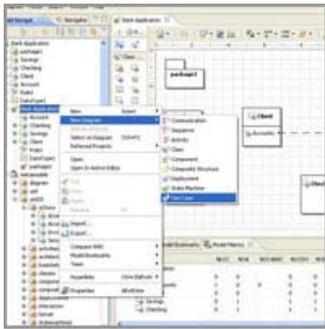


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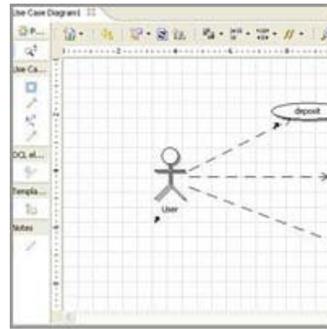
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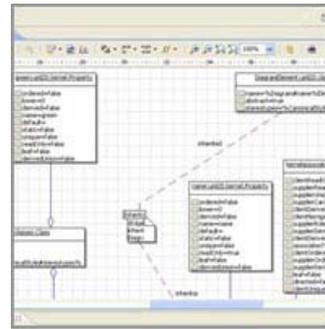
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- Complete UML modeling environment to create Class, Sequence, Use Case and other UML 2.0 diagrams



- Use Case Diagram to document user scenarios for a system



- Pattern Support – Create your own patterns or leverage existing pre-populated patterns

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Revision Information:

- Current Version: 1.0
- Current Release: October 2009

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Home > Products > ER/Studio > ER/Studio Portal

ER/Studio Portal

Embarcadero® ER/Studio® Portal is a web-based search and reporting tool used to access and query the ER/Studio Repository for improved understanding of metadata, object whereabouts, and data usage. The self-service Portal can be accessed via any web browser for cross-model and repository-wide data definitions and object searches.

- Real-time metadata information and access
- Advanced ad-hoc search and reporting
- Comprehensive administrative and security console

Try the Portal

Trying out the ER/Studio Portal is easy. You can [download](#) and install the product in your own environment, or you can test drive the Portal in a [hosted demo](#) environment. Either way you will be amazed at how easy it is to search, report, share and collaborate on metadata.

Ready to Upgrade to ER/Studio Enterprise?

Combining process modeling, data modeling, UML modeling, a server-side repository, and a metadata reporting engine, upgrading to ER/Studio XE provides you all the tools you'll need to analyze, model and design your complex applications and databases. Learn more about [ER/Studio XE](#).

"Accurate, timely, and relevant data is at the heart of the marketing services we provide our customers. By standardizing on ER/Studio for enterprise model management, we are assured of the consistency we need. All systems, whether reverse engineered or built from scratch, are designed using ER/Studio. Its rich documentation and data lineage functionality allow us to track database schema changes and helps us meet Sarbanes Oxley requirements." - Mark Peterson, Senior Database Analyst, Valassis

BI/DW Resource Center

Learn best practices from industry experts like Bill Inmon, Claudia Imhoff and Embarcadero's Jason Tiret on data modeling for BI and data warehousing

Stuck on ERwin?

It's time to make the switch and it's easier than you think. Learn why so many companies have switched.

Try the ER/Studio Portal

Try our hosted web portal for free. It's like Google® for your metadata with centralized self-service reporting and searching of ER/Studio metadata.

Key Features:

- Structured browsing and navigation of diagrams stored in the Repository
- Simple search text properties of all object types and diagrams
- Advanced searching to search for specific object types or specific projects and sort by order
- Pre-installed business reports for business users searching/reporting on business names, definitions, and object whereabouts
- Pre-installed technical reports for implementation details such as data types, column width, column names, data lineage and security classifications
- Custom reporting that enables administrators to generate a model, dictionary, or data lineage
- Centralized license management and tool deployment with Embarcadero ToolCloud

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Learn how to avoid the pitfalls in Data Modeling

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Key Features in ER/Studio Portal

Object Labeling and Commenting on Reports



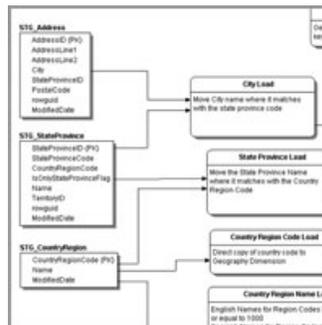
- Object Labels and Commenting on Detailed Reports: Add object labels and comments to any detailed report to organize and customize reports.

ER/Studio Business Architect Support



- Support for ER/Studio Business Architect: Browse, search and report ER/Studio Business Architect diagrams in the Workspaces nodes of the Repository explorer.

Data Lineage Support



- Support for Visual Data Lineage: Browse, search and report Visual Data Lineage diagrams through the Repository explorer.

MORE INFORMATION

- ▶ Technical Papers
- ▶ Webinars
- ▶ Product Reviews
- ▶ Awards
- ▶ Community

Learn more about other tools like [Universal Data Models](#), [ER/Studio MetaWizard](#), [ER/Studio Viewer](#) and other complimentary tools.

Revision Information:

- Current Version: 1.6
- Prior Version: 1.5.1
- Current Release: November 2010

Download Free Trial

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Please select the platform, language and version you would like to download.

PLATFORMS	LANGUAGES	VERSION	SIZE
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[ER/Studio XE Server Software Trial](#)

A powerful modeling and architecture solution that combines process, data, UML modeling and reporting in a powerful multi-level design environment. Products included are: ER/Studio Repository and ER/Studio Portal.

If you're already a ER/Studio customer, please visit the [Registered User Downloads](#) to download the latest release.

 Windows	English	XE (9.0)	430.7MB	DOWNLOAD
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[Embarcadero All-Access 1.8 Trial](#)

Embarcadero® All-Access Trial (v1.8)

All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.

 Windows		1.8	58.1MB	PRODUCT INFO DOWNLOAD
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[ER/Studio Portal 1.6 Trial](#)

The ER/Studio Portal is a browser-based architecture and design tool that allows organizations to share, browse, and report on the metadata contained in the ER/Studio repository. This is the ER/Studio Portal 1.6 trial build. If you do not wish to download the trial, a live demo is also available in a hosted environment available at <http://www.embarcadero.com/downloads/downloaderstudioentportal.jsp>

If you're already a ER/Studio customer, please visit the [Registered User Downloads](#) to download the latest release.

 Windows	English	1.6	412.8MB	PRODUCT INFO DOWNLOAD
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Server Response from: ETNACDC01



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ER/Studio® Universal Data Models

Industry-standard set of data model templates developed by renowned author and modeling expert Len Silverston, are now available for ER/Studio.

[Watch Videos](#)

Video On-Demand
Universal Data Models & Patterns with Featured Guest Len Silverston

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Our online store is open 24x7

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Home > Products > ER/Studio > ER/Studio Universal Data Models

ER/Studio Universal Data Models

Universal Data Models are standard and industry data model templates for ER/Studio that reduce development time and facilitate standardization:

- Reduce development time on new projects
- Facilitate standardization of existing data models
- Easy navigation with full attributes and detailed definitions
- Available for 9 different subject areas and 7 industry-specific add-ons
- Centralized license management and tool deployment with Embarcadero ToolCloud

These data model patterns provide companies with complete data models that reduce development time by jumpstarting brand new projects. They can also be used to facilitate standardization of the many existing data models that have conflicting structures, attributes, and definitions for the same real-world entity such as "customer". The models are attractively laid out for easy navigation and include full attributes and detailed definitions for every attribute.

Hear [Len Silverston talk](#) about the development of the Universal Data Models and partnership with Embarcadero.

Using ER/Studio's easy-to-read format, the Universal Data Models are categorized into nine individual subject areas that can be combined to form a complete and integrated corporate model. The nine subject areas include:

- [Accounting & Budgeting Data Model](#)
- [Work Effort & Project Management Data Model](#)
- [Web and e-Commerce Data Model](#)
- [Shipments & Deliveries Data Model](#)
- [Product Data Model](#)
- [People & Organizations Data Model](#)
- [Orders & Agreements Data Model](#)
- [Invoice & Time Billing Data Model](#)
- [Human Resources Data Model](#)

In addition, seven industry-specific Universal Data Models are available, including:

- [Travel Industry Model](#)
- [Telecommunications Industry Model](#)
- [Professional Services Industry Model](#)
- [Manufacturing Industry Model](#)
- [Insurance Industry Model](#)
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- [Banking, Investments & Financial Services Model](#)

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- [ER/Studio®](#)
A model-driven data architecture and database design solution.

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Home > Products > ER/Studio > ER/Studio MetaWizard

ER/Studio - MetaWizard

MetaWizard is an application that allows ER/Studio to integrate with more than seventy other applications by sharing meta-data through an import-export capability. Integrate metadata across modeling tools, business intelligence, ETL platforms and industry-standard exchange formats such as XMI, XML and XSD.

Convert Existing Models

You won't lose the investment you've made in your existing data models when switching over to ER/Studio. MetaWizard Import Bridge makes it easy to convert data models from all the major modeling tools such as CA AII Fusion Erwin, IBM Rational Data Architect, Oracle Designer, and Sybase PowerDesigner. Import from their native file formats from within ER/Studio.

Share Models With Other Groups

Whether you work in a large organization or small, you will likely find the need to share your ER/Studio models with those who use other tools. Perhaps with an application developer who uses a UML tool or someone in another organization who uses a different data modeling tool. The MetaWizard Export Bridge makes this possible, while maintaining consistency with the models and underlying metadata.

Integrate Metadata With Other Platforms

Metadata is the data about your data. It should be consistent across the organization whether the data resides in a database, Excel spreadsheet, Business Intelligence (BI) application, an ETL tool, or an XML structure. MetaWizard makes it easy to share metadata across all these platforms and ensures you don't duplicate work in these areas.

System Requirements

- MetaWizard operates as a feature within ER/Studio and does not affect system requirements
- For a complete list of Import and Export applications [click here](#).



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ER/Studio® Viewer

An interactive environment for accessing ER/Studio data models.

This distributable application offers the same sophisticated navigational features of ER/Studio to members of the modeling team that want advanced browsing and zooming capabilities but do not require the ability to edit the models.

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ER/Studio Viewer

ER/Studio Viewer provides an interactive environment for accessing ER/Studio data models. This distributable application offers the same sophisticated navigational features of ER/Studio to members of the modeling team that want advanced browsing and zooming capabilities but do not require the ability to edit the models.

ER/Studio Repository Connectivity

Direct connection to the ER/Studio Repository allows full access to an organization's enterprise model management system. Using the ER/Studio viewer, individuals can examine any model in the repository in detail, making it easier to communicate across teams and facilitate reuse. ER/Studio Viewer users can not check in or out any objects in the models.

View-Only Editor Access

Dictionary object and model object editors give a comprehensive script-level picture of the database structure. Using the editors, viewers can drill down to the associated metadata of specific objects such as entities, attributes, relationships, and views. Read-only restrictions ensure the security of the objects.

Model Print and Layout Capabilities

Easy-to-use features including pan, zoom and relationship navigation allow viewers to print the model or any associated submodel. The same advanced layout engines in ER/Studio are available in the Viewer. Users can navigate to specific areas of the model or lay out the entire model for printing, according to their requirements.

Download Now

Try ER/Studio Viewer for free with a [14-day trial](#).

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ER/Studio® Repository

Server-side data and process model management

Included only in ER/Studio Enterprise, ER/Studio Repository promotes standardization, collaboration and quality in a productive team modeling environment

[Watch Videos](#)

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It's Time to Make the Switch!

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Our online store is open 24x7

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Home > Products > ER/Studio > ER/Studio Repository

ER/Studio Repository

Embarcadero® ER/Studio® Repository is a server-side model management system that solves the day-to-day challenges of modeling in a team environment, where model collaboration, versioning, security and component reuse are vital. The ER/Studio Repository allows multiple users to be extremely productive while collaborating on data and business process modeling projects with real-time concurrent access that allows team members to share and re-use assets across projects.

- Collaborative modeling with concurrent model and object access
- Model and object version management
- Standardized enterprise data dictionary
- Real-time objects status notification

Ready to Upgrade to ER/Studio Enterprise?

Combining [process modeling](#), [data modeling](#), [application modeling](#), [a server-side repository](#), and a [metadata reporting engine](#), upgrading to ER/Studio Enterprise provides you all the tools you'll need to analyze, model and design your complex applications and databases. Learn more about [ER/Studio Enterprise](#).

Key Features:

- Concurrent model and object access for real-time collaboration on data models
- Real time object status notification to show check-out status of diagrams and objects
- Pre-defined enterprise data dictionary to eliminate data redundancy and enforce data element standards
- Version management features to manage the individual history of models and model objects with the ability to rollback
- Repository security to visually bind and associate users to diagrams, objects and dictionaries
- "Detached" collaboration to allow complete detachment from the repository server with facilities to review changes and resolve conflicts
- Centralized license management and tool deployment with Embarcadero ToolCloud

"Embarcadero clearly offered the best data modeling solution to meet our requirements. ER/Studio matched our high-priority functional requirements including high-quality HTML, mapping functions, and good metadata repository capabilities. Embarcadero ER/Studio does exactly what it says on the tin, and stood up against our high expectations" - Barclays

BI/DW Resource Center

Learn best practices from industry experts like Bill Inmon, Claudia Imhoff and Embarcadero's Jason Tired on data modeling for BI and data warehousing

Stuck on ERwin?

It's time to make the switch and it's easier than you think. Learn why so many companies have switched.

Try the Web Portal

Try our hosted web portal for free. It's like Google® for your metadata with centralized self-service reporting and searching of ER/Studio metadata.

ER/Studio Repository

Review and resolve changes	Model and Object Version	Secure Collaborative Modeling
----------------------------	--------------------------	-------------------------------

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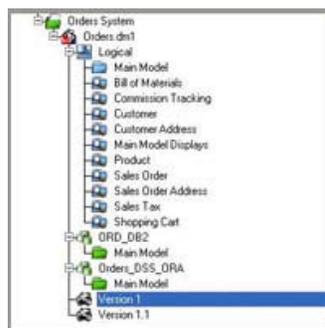
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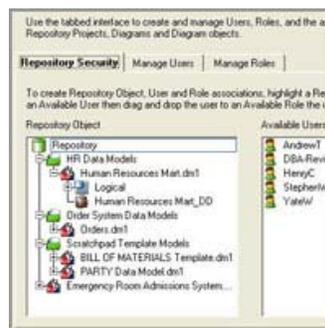
Management



- Conflict resolution through simple and intelligent interfaces to walk users through the discovery of differences identified between a specific user's model and changes that have occurred simultaneously to the model by others connected to the Repository.



- Version Management: Manages the individual histories of models and model objects to ensure incremental comparison between, and rollback to, desired diagrams and diagram elements.
- Named Releases: Allows users to incrementally set Named Releases of models to allow for the capturing of diagram snapshots to incrementally freeze project milestones.



- Manage Repository Security, Users, Roles and perform administrative tasks to manage users logged in and working in the Repository

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Learn more about other tools like [Universal Data Models](#), [ER/Studio MetaWizard](#), [ER/Studio Viewer](#) and other complimentary tools.

Revision Information:

- Current Version: 5.5
- Prior Version: 5.0.3
- Current Release: October 2009

Introducing New

RAD Studio XE

Everything you need to build native Windows®, .NET, Web and database applications.



Be Amazing

Home > Products > Application Development > RAD Studio XE

RAD Studio XE

Embarcadero RAD Studio XE is a comprehensive application development suite and the fastest way to visually build GUI-intensive, data-driven applications for Windows, .NET, PHP and the Web. RAD Studio includes [Delphi®](#), [C++Builder®](#), [Delphi Prism™](#), and [RadPHP™](#) enabling developers to deliver applications up to 5x faster across multiple Windows, Web, and database platforms.

With RAD Studio XE, you can:

- Rapidly build ultra-rich, ultra-fast applications across multiple platforms
- Build applications faster with pre-built components and drag-and-drop visual design
- Future-proof your applications with native connectivity to 9 major databases and ready-made components for cloud connectivity
- Utilize thousands of free and commercial components for user interfaces, database, multi-tier, web apps, industry specific and more

RAD Studio includes:

- [Delphi](#) and [C++Builder](#) for rapidly building high-performance native Windows applications
- [Delphi Prism](#) for rapidly building .NET and cross-platform Mono applications which can target Windows, Linux and Mac OS X
- [RadPHP](#), a complete PHP IDE and the only choice for rapid drag-and-drop visual development of PHP web applications
- Access to previous versions of Delphi (7, 2007-2010), C++Builder (6, 2007-2010), Delphi Prism (2009-2011) at no extra cost

RAD Studio XE is available in Professional, Enterprise and Architect editions. For details on the differences between the editions, see the [Product Editions](#) page and [Feature Matrix](#).

Free Earlier Versions

Buy RAD Studio XE and get earlier versions of Delphi, C++Builder and Delphi Prism at no extra charge

RAD in Action

Learn from the experts with free technical papers, videos and webinars on DataSnap and more

Application Showcase

See some of today's coolest apps that are built with Delphi and C++Builder

New in RAD Studio XE

The 2011 release of RAD Studio is here and is called RAD Studio XE. With hundreds of new features and enhancements, RAD Studio XE helps you build applications even faster for Windows, .NET, the Web, and now for PHP. RAD Studio XE includes some of most the popular and powerful tools for code editing, build, profiling, and testing out-of-the-box. And with enhanced support for multi-tier and new support for cloud deployment, you can future-proof your applications like never before. Get RAD Studio XE today to get the following and more to accelerate your development:

[New Delphi XE and C++Builder](#)
[New RadPHP added to RAD](#)
[New Delphi Prism XE for .NET](#)

RAD Studio Key Features for Windows Development

- Fast drag-and-drop design
- Over 500 VCL controls included
- Built-in touch and gesturing support
- dbExpress with support for 9 major databases
- DataSnap n-tier middleware with JSON, REST, HTTP, HTTPS, COM, and XML
- Target Windows 2000, XP, Vista, and Windows 7 from single source

RAD Studio Key Features for .NET Development

- Build .NET apps and cross-platform Mono apps targeting Windows, Linux and Mac OS X
- Easy-to-learn Delphi Prism programming language
- Build DataSnap .NET clients to connect to Delphi and C++Builder multi-tier middleware
- ASP.NET and Silverlight development

RAD Studio Key Features for PHP Web Development

- Complete PHP IDE with editor, debugging and profiling
- Visual designers for PHP applications and HTML files
- More than 150 visual PHP components
- Visually build dynamic Web front-end web applications for Delphi and C++Builder DataSnap servers and deploy on Windows and Linux

Special offer for
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of Delphi, C++Builder,
or RAD Studio

Get **DataSnap**
and more at a great
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Customer Quotes

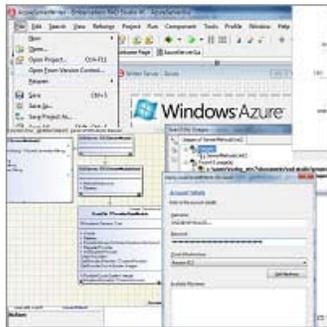
" The BEST Delphi since version 7. A real game changer, anyone not using Delphi needs to re-evaluate. "
- Andrew Tierney

" I'm switching from RS2010 to XE as my default IDE. "

TECHNICAL RESOURCES

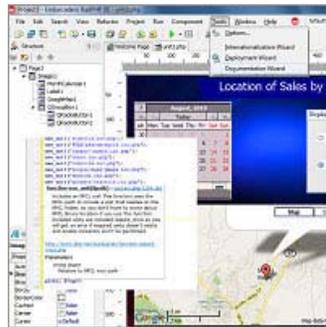
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XE with an expanded developer toolbox, cloud and multi-tier



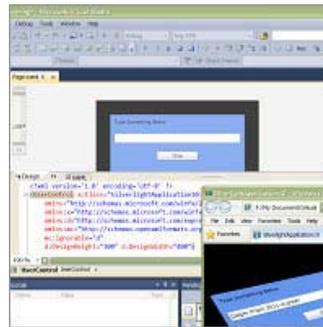
- New tools for build automation, profiling, logging, version control, and text compare
- Cloud computing support for Windows Azure data and Amazon EC2 deployment
- New DataSnap features including creating servers using C++Builder, new wizards, RESTful server support, encryption and compression

Studio for Web and Facebook app development



- Complete PHP coding environment and IDE with editor, debugger profiler and more
- RadPHP component library delivering the only drag-and-drop visual development experience for PHP
- Facebook components to speed development of social networking apps with PHP
- Create client apps with RadPHP that connect to DataSnap servers created with Delphi and C++Builder

and cross-platform Mono development



- Create .NET and Mono apps and deploy to Windows, Linux and Mac OS X
- New subversion integration in the Delphi Prism IDE
- Create .NET DataSnap client apps
- Work with the latest .NET technologies including .NET 4.0, Silverlight and ASP.NET for rich application and web development

C++Builder Community

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[Learn more about what's new in RAD Studio XE](#)

[Learn what other Embarcadero products complement RAD Studio XE](#)

Revision Information:

- Current Version: XE
- Prior Version: 2010
- Current Release Date: August 2010

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PLATFORMS	LANGUAGES	VERSION	SIZE	
Embarcadero RAD Studio XE Architect - 30 day trial				
Embarcadero® RAD Studio XE is a comprehensive application development suite and the fastest way to visually build GUI-intensive, data-driven applications for Windows, .NET, PHP and the Web. Free, 30-day, fully-functional trial. (Trial doesn't include the Delphi command line compiler, VCL source code and some bundled tools) English, French, German and Japanese				
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Delphi XE

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Delphi XE

Embarcadero® Delphi® XE is the fastest way to deliver ultra-rich, ultra-fast Windows applications. Dramatically reduce coding time and create applications 5x faster with component-based development and a fully visual two-way RAD IDE. Speed development across multiple Windows and database platforms – for GUI desktop applications, interactive touch-screen, kiosk, and database-driven multi-tier, cloud, and Web applications. With Delphi, you can:

- Build applications faster with pre-built components and drag-and-drop visual design
- Build applications that require speed-visualizing data, controlling hardware in real time, manipulating 3D objects, financial modeling, gaming, imaging, medical equipment, point-of-sale systems, and more
- Future-proof your applications with native connectivity to 9 major databases and ready-made components for cloud connectivity
- Utilize thousands of free and commercial components for user interfaces, database, multi-tier, web apps, industry specific and more

Delphi XE is available in Professional, Enterprise and Architect editions. For details on the differences between the editions, see the [Product Editions](#) page and [Feature Matrix](#)

Delphi XE Key Features

- RAD IDE with fast drag-and-drop design
- More than 500 visual controls
- Built-in touch and gesturing support
- dbExpress with support for 9 major databases
- DataSnap n-tier middleware with JSON, REST, HTTP, HTTPS, COM, and XML
- Debugging support for multi-threaded applications
- UML / code metrics and audits
- Integrated tool chest for performance profiling and build automation
- Subversion integration for source code management
- Cloud deployment to Amazon EC2 and work with Windows Azure cloud data storage
- Target Windows 2000, XP, Vista, and Windows 7 from single source
- Access to previous Delphi versions (7, 2007-2010) included
- Centralized license management and tool deployment with Embarcadero ToolCloud

Free Delphi Earlier Versions

Buy Delphi XE and get earlier versions 7, 2007, 2009 and 2010 at no extra charge

New Starter Edition

Get started with Windows programming at a great price with new Delphi XE Starter edition

Application Showcase

See some of today's coolest apps that are built with Delphi

New in Delphi XE

Delphi XE (Delphi 2011) delivers hundreds of new features and enhancements to accelerate your development. With Delphi XE you'll find new ways to get your work done faster, build higher quality apps, and take advantage of multi-tier and cloud. Here's just some of what you get when you upgrade now:

<p>Faster coding and performance with new coding tools and an expanded developer toolbox</p>	<p>Build tomorrow's applications today with cloud and multi-tier</p>	<p>Get earlier versions free and more with XE exclusives</p>
--	--	--

Special offer for
Pro Edition Users
of Delphi, C++Builder,
or RAD Studio

UPGRADE

Get DataSnap and more at a great price when you upgrade to Enterprise edition by March 31

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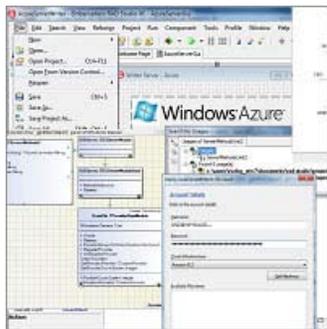
Customer Quotes

" The BEST Delphi since version 7. A real game changer, anyone not using Delphi needs to re-evaluate. "
- Andrew Tierney

" I'm switching from RS2010 to XE as my default IDE. "

TECHNICAL RESOURCES

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- Subversion version control tightly integrated into the IDE
- FinalBuilder Embarcadero Edition tools
- Command line audits, metrics, formatting and doc gen
- AQtime Standard profiling tools
- CodeSite Express logging tools and enhanced debugging



- New components for working with Microsoft Windows Azure blobs, queues and tables
- Easy deployment to Amazon EC2 cloud infrastructure
- New DataSnap features including new wizards, RESTful server support, encryption, compression, and new client options to extend the capabilities of your multi-tier applications



- Get free access to earlier version licenses for Delphi 2010, 2009, 2007 and 7
- ToolCloud network licensing option for managing licenses and software provisioning within your team, company or organization
- Easy upgrade to All-Access with a complete range of developer tools and database tools

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- ▶ Delphi Reviewer Guide

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Revision Information:

- Current Version: XE
- Prior Version: 2010
- Current Release Date: August 2010

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Embarcadero® Delphi® XE is the fastest way to deliver ultra-rich Windows applications. Dramatically reduce coding time and create applications 5x faster with component-based development.

Free, 30-day, fully-functional trial.

(Trial doesn't include command line compiler, VCL source code and some bundled tools)

English, French, German and Japanese

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Embarcadero RAD Studio XE Architect - 30 day trial

Embarcadero® RAD Studio XE is a comprehensive application development suite and the fastest way to visually build GUI-intensive, data-driven applications for Windows, .NET, PHP and the Web.

Free, 30-day, fully-functional trial.

(Trial doesn't include the Delphi command line compiler, VCL source code and some bundled tools)

English, French, German and Japanese

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C++Builder XE

Embarcadero® C++Builder® XE is the only true RAD C++ environment and component framework – designed for ultra-fast development of highly-maintainable Windows GUI applications across multiple Windows and database platforms. C++Builder's fully visual two-way RAD IDE and thousands of available components speed and simplify building rich and data-intensive end-user applications. With C++Builder, you can:

- Rapidly build native Windows applications using the C++ language and libraries
- Build applications faster with pre-built components and drag-and-drop visual design
- Future-proof your applications with native connectivity to 9 major databases and ready-made components for cloud connectivity
- Utilize thousands of free and commercial components for user interfaces, database, multi-tier, web apps, industry specific and more

C++Builder XE is available in Professional, Enterprise and Architect editions. For details on the differences between the editions, see the [Product Editions](#) page and [Feature Matrix](#)

C++Builder XE Key Features:

- Integrated ANSI/ISO C++ tools with draft C++0x support RAD IDE with fast drag-and-drop design
- Integrated Boost and TR1 libraries
- Over 500 visual controls
- Built-in touch and gesturing support
- dbExpress with support for 9 major databases
- DataSnap n-tier middleware servers with JSON, REST, HTTP, HTTPS, COM, and XML
- Target Windows 2000, XP, Vista, and Windows 7 from single source
- Centralized license management and tool deployment with Embarcadero ToolCloud
- Integrated tool chest for performance profiling and build automation
- Subversion integration for source code management
- Cloud deployment to Amazon EC2 and work with Windows Azure cloud data storage
- Access to previous C++Builder versions (6, 2007-2010) included

Special offer for Pro Edition Users of Delphi, C++Builder, or RAD Studio

Get DataSnap and more at a great price when you upgrade to Enterprise edition by March 31

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<p>Free Earlier Versions</p> <p>Buy C++Builder XE and get earlier versions 6, 2007, 2009 and 2010 at no extra charge</p>	<p>New Starter Edition</p> <p>Get started with C++ programming at a great price with new C++Builder XE Starter edition</p>	<p>Application Showcase</p> <p>See some of today's coolest apps that are built with C++Builder and Delphi</p>
---	---	--

New in C++Builder XE

C++Builder XE (C++Builder 2011) delivers hundreds of new features and enhancements to help you build ultra-rich applications more rapidly. With C++Builder XE you'll find new ways to get your work done faster, build higher quality apps, and take advantage of multi-tier and cloud. Here's just some of what you get when you upgrade now:

<p>Faster coding and performance with new coding tools and an expanded developer toolbox</p>	<p>Build tomorrow's applications today with cloud and multi-tier</p>	<p>Get earlier versions included free and more with XE exclusives</p>
--	--	---

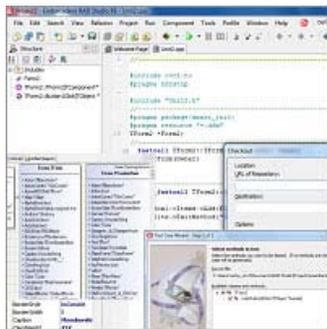
Customer Quotes

" Great to see that tools such as AQtune and CodeSite will now be part of the default setup; it's so much easier to debug even the most intricate multithreaded problems. "

- Mattias A.

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- Subversion version control tightly integrated into the IDE
- FinalBuilder Embarcadero Edition tools
- Command line audits, metrics, formatting and doc gen
- AQtime Standard profiling tools
- CodeSite Express logging tools and enhanced debugging



- New components for working with Microsoft Windows Azure blobs, queues and tables
- Easy deployment to Amazon EC2 cloud infrastructure
- New DataSnap features including creating servers using C++Builder, new wizards, RESTful server support, encryption, compression, and new client options



- Get free access to earlier version licenses for C++Builder 2010, 2009, 2007 and 6
- ToolCloud network licensing option for managing licenses and software provisioning within your team, company or organization
- Easy upgrade to All-Access with a complete range of developer tools and database tools

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- Current Version: XE
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C++Builder XE Architect - 30 day trial C++Builder® XE is the only true RAD C++ environment – combining a powerful ANSI C++ tool chain with a rich visual component framework for ultra-fast Windows application development. Free, 30-day, fully-functional trial (Trial doesn't include VCL source code and some bundled tools) English, French, German and Japanese					
Windows		XE	36MB	PRODUCT INFO	DOWNLOAD
Embarcadero RAD Studio XE Architect - 30 day trial Embarcadero® RAD Studio XE is a comprehensive application development suite and the fastest way to visually build GUI-intensive, data-driven applications for Windows, .NET, PHP and the Web. Free, 30-day, fully-functional trial. (Trial doesn't include the Delphi command line compiler, VCL source code and some bundled tools) English, French, German and Japanese					
Windows		XE	36.2MB	PRODUCT INFO	DOWNLOAD
C++ Compiler 5.5 C++Builder Compiler (bcc compiler) free download. See the file bcb5tool.hlp in the Help directory for complete instructions on using the C++Builder Compiler and Command Line Tools.					
Windows	English		8.5MB	PRODUCT INFO	DOWNLOAD

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Introducing New **Delphi Prism XE** *Be Amazing*

Cross Platform .NET and Mono IDE

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Delphi Prism XE

Embarcadero® Delphi Prism™ XE provides a cross-platform development solution and robust programming language for rapidly developing .NET, Mono, ASP.NET, and data-driven applications for Windows, Linux, and Mac OS X. Delphi Prism combines easy-to-learn syntax based on the Delphi language with features not available in other .NET programming languages, enabling developers to create cutting-edge applications. With Delphi Prism, you can:

- Create .NET, ASP.NET web, and Silverlight applications
- Build cross-platform Mono applications and deploy on Windows, Linux and Mac OS X
- Develop apps with a choice of IDEs on both Windows and Mac OS X
- Leverage your Delphi language skills with the easy-to-learn Delphi Prism language
- Work with the latest .NET 4.0 and Visual Studio 2010 technologies

Delphi Prism is available in Professional and Enterprise editions. It's also available as part of [Embarcadero RAD Studio XE](#) and [Embarcadero All-Access XE](#). For details on the differences between the editions, see the [Product Editions](#) page and [Feature Matrix](#)

Delphi Prism XE Key Features:

- Delphi Prism programming language with cutting edge language features
- Support for the latest .NET 4.0 and Silverlight technologies
- Works with Novell MonoTouch (sold separately) to build apps for the iPhone, iPod Touch and iPad
- ADO.NET database connectivity plus dbExpress for InterBase
- Build DataSnap .NET clients to connect to Delphi multi-tier middleware
- Visual Studio 2010 Shell based IDE included or install into Visual Studio 2010 or 2008 SP1
- MonoDevelop IDE for developing on Windows and Mac OS X
- Previous versions, centralized license management and tool deployment with Embarcadero ToolCloud

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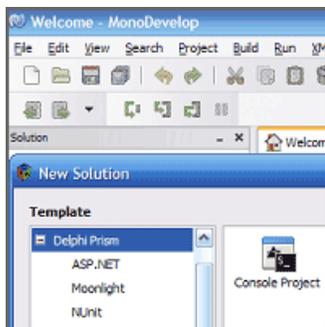
See how easy it is to create cross-platform apps for Mac OS X and Linux with Delphi Prism

RAD Studio XE Webinar

Watch the webinar on-demand to see what's new in Delphi Prism XE and RAD Studio XE

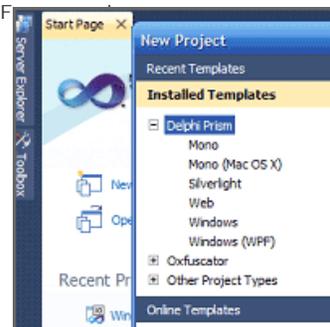
New in Delphi Prism XE

Cross Platform Development on Windows and Mac OS X



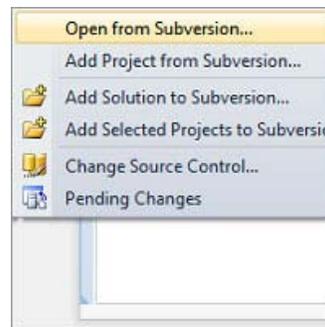
Previously Delphi Prism included a Visual Studio based IDE for development on Windows. Now it also includes the

Support for the Latest Versions of Visual Studio and the .NET



Delphi Prism brings you all the productivity enhancements of a Visual Studio 2010 based IDE and support for the features of

Subversion Integration in the IDE



Delphi Prism XE adds Subversion version control integration so you can perform common version control options directly

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MonoDevelop IDE, built-in, for development on both Windows and Mac OS.

the .NET Framework 4.0.

from inside the Visual Studio based IDE.

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Revision Information:

- Current Version: XE
- Prior Version: 2011
- Current Release Date: August 2010

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Delphi Prism XE Enterprise - 30 day trial Delphi Prism™ XE provides a cross-platform development solution and robust programming language for rapidly developing .NET, Mono, ASP.NET, and data-driven applications for Windows, Linux and Mac OS X. Free, 30 day, fully-functional trial - English, German, French, Japanese				
 Windows		XE	5.8MB	PRODUCT INFO DOWNLOAD
Delphi Prism XE Command Line Edition Delphi Prism XE Command Line Edition which be used via the command line for integration with automated build environments. Powered by the RemObjects Oxygene Compiler				
 Windows		XE	2.7MB	PRODUCT INFO DOWNLOAD
Delphi Prism XE for Mac OS X - 30 day trial The "Delphi Prism with MonoDevelop" archive contains both MonoDevelop and Delphi Prism so you don't need to have MonoDevelop installed before starting the product. The only prerequisite is the Mono framework. If you're using Windows or both Windows and Mac, download the other Delphi Prism XE trial.				
 Mac OS X		XE	13.3MB	PRODUCT INFO DOWNLOAD

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RadPHP XE

Embarcadero® RadPHP™ XE revolutionizes web development with a completely integrated, rapid visual development approach and component framework for PHP. The powerful PHP editor and debugger increase coding speed and efficiency.

The integrated RadPHP component library helps developers quickly and visually create PHP web and Facebook applications, and the library can be extended with third party and open source components. With RadPHP, you can:

- Easily build powerful and reliable PHP web applications with the ease of drag-and-drop visual design
- Build web clients that connect with multi-tier DataSnap servers created with Delphi and C++Builder
- Rapidly create data-enabled applications with seamless access to leading databases

Key Features:

- PHP editor with coding tools
- Integrated debugger
- Error Insight
- Performance profiling
- Database and query tools
- Connect with Delphi and C++Builder DataSnap multi-tier applications
- Visual form designer
- HTML visual designer
- 75+ visual components

For more details on RadPHP XE, see the [What's New](#) page and [Feature Matrix](#)

Build Facebook and PHP apps

Learn how to build Facebook and PHP applications with RadPHP

PHP and Android Mobile Development

Expert tech paper, web seminar and videos available now!

Ultimate RAD Upgrade

Get the ultimate tool chest. RadPHP XE plus all the app dev and database tools you need

New in RadPHP XE

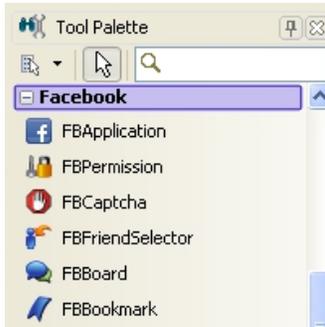
RadPHP XE (3.0) brings exciting new features and enhancements throughout the IDE and additions to the component library to help you build ultra-rich web applications – ultra-fast. New features include:

High-performance IDE with new tools and a new debugger



- IDE Insight – the fastest way to find and execute commands in the IDE

Expanded RadPHP visual component library



- Facebook components to speed development of social networking apps

And everything you already love from Delphi for PHP and more



- Create PHP and JavaScript client apps that connect to DataSnap

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- New project management tools and project options
- Faster and more powerful debugger
- New support for the Firebird database in the IDE

- New jQuery components – AutoComplete, NotifyBar, PasswordStrength, and SlideShow
- Additional qooxdoo components

- servers created with Delphi and C++Builder
- The only drag-and-drop visual development experience for PHP

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Revision Information:

- Current Version: XE
- Prior Version: 2.0
- Current Release Date: August 2010

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RadPHP XE Trial

Embarcadero® RadPHP™ XE makes building robust PHP Web applications easier with visual drag-and-drop tools, a powerful editor, debugger, database connectivity, and an integrated reusable component class library. 30-day trial edition

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The fastest way to develop enterprise Java™ applications

JBuilder enhances productivity and innovation for Java developers with an enterprise-class, Eclipse-based integrated development environment (IDE) that supports leading commercial and open source Java EE 5 application servers.

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JBuilder

JBuilder® is one of the most complete and powerful Java IDE's available with support for the leading commercial and open source Java EE 5 application servers.

- Improve code quality and performance
- Increase individual and team productivity
- Improve comprehension of new or existing code

JBuilder's code profiling and performance tuning tools, which include the ability to profile Web applications, enable Java developers to deliver high performing, scalable applications. With the built-in audits and metrics, you can measure the overall quality of the object design, the complexity and cohesion between objects, the extent of test coverage, and many other factors to help pinpoint potential maintenance, quality and performance issues.

To maximize developer productivity JBuilder includes several visual designers including EJB and JPA Designers enabling developers to create a visual model as they develop EJB applications and enable the creation of a Java modeling project with JPA support, a Web Services Designer which provides a visual, two-way designer for creating Axis based Web Service-enabled applications, and a Swing UI Designer for fast, easy creation of Swing-based UIs.

The UML modeling capability in JBuilder fosters better communication between developers, developer teams, and management and supports both the 1.4 and 2.0 UML specifications. And, with LiveSource® you have the added benefit of simultaneous synchronization between the code and diagrams when making changes to either one.

Feature Highlights

Graphical EJB Designer - a visual point-and-click, two-way designer with instant navigation between visual EJB components and source.

Web Services Designer - Visual two-way designer for creating Axis based Web Service-enabled applications.

Audits and Metrics - provides developers and managers with measures of the quality and complexity of the project.

Key Features:

- Support for leading commercial and open source Java application servers.
- Visual EJB, JPA and Web services development.
- Performance tuning with memory and CPU profiling capabilities.
- Profile performance across JDBC, RMI, JSP, JNDI, EJBs, JMS, and Web service protocol containers.
- Code coverage and analysis.
- Code audit and metrics.
- Swing UI designer.
- UML 2.0 modeling and code archeology.
- Collaborative team development with integrated tracking, source code management, project planning and continuous builds.
- Centralized license management and tool deployment with Embarcadero ToolCloud

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Experience the power of on-demand tooling in one flexible, cost-effective ToolBox license

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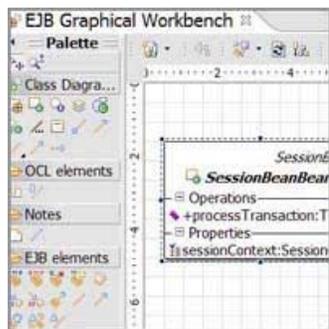
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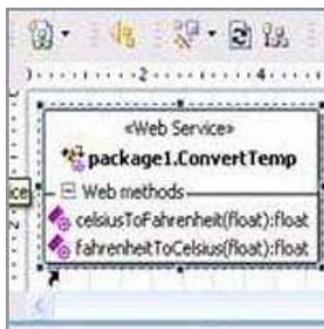
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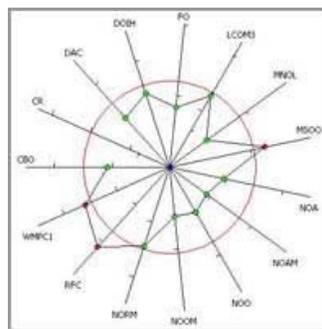
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- Create a visual model when developing EJB applications.
- Visually design EJB 3.0/JPA entity relationships and configure database mapping.
- Visually configure persistence properties for EJB 3.0/JPA.
- Create an EJB Modeling Project based on a WTP XDoclet Project.



- Visual design surface to quickly create, implement, and validate Web services.
- Expose a simple Java class or EJB Session Bean as a Web Service.
- Visual representation of WSDL with methods and operations.
- Set service and WSDL options with inspectors.
- Debug Web service and Web Service



- Metrics evaluate object model complexity and quantify your code.
- Audits provide information on design issues, naming conventions, and other items which can impact code quality.
- Create specific QA sets for source code audits and metrics, and save them to a local file system, or as part of a project which can then be shared with the team.

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JBuilder® 2008 R2 Enterprise enables Java developers to build, test, optimize, deploy, and maintain enterprise-scale applications. Included are the new Swing designer and Application Factories capabilities.					
 Windows	English	2008 R2	1.8GB	PRODUCT INFO	DOWNLOAD
JBuilder 2008 R2 Enterprise Trial for Linux (RHEL 5)					
JBuilder® 2008 R2 Enterprise enables Java developers to build, test, optimize, deploy, and maintain enterprise-scale applications. Included are the new Swing designer and Application Factories capabilities.					
 Linux	English	2008 R2	1.3GB	PRODUCT INFO	DOWNLOAD
JBuilder 2008 R2 Enterprise Trial for Mac OS X (10.5)					
JBuilder® 2008 R2 Enterprise enables Java developers to build, test, optimize, deploy, and maintain enterprise-scale applications. Included are the new Swing designer and Application Factories capabilities.					
 Mac OS X	English	2008 R2	1.1GB	PRODUCT INFO	DOWNLOAD
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Base Eclipse 3.6.1 SDK for Linux.					
 Linux		3.6.1	169.9MB	PRODUCT INFO	DOWNLOAD
Base Eclipse 3.6.1 SDK for Mac					
Base Eclipse 3.6.1 SDK for Mac.					
 Mac OS X		3.6.1	169.5MB	PRODUCT INFO	DOWNLOAD
Base Eclipse 3.6.1 SDK for Windows					
Base Eclipse 3.6.1 SDK for Windows.					
 Windows		3.6.1	170.5MB	PRODUCT INFO	DOWNLOAD
Embarcadero All-Access 1.8 Trial					
Embarcadero® All-Access Trial (v1.8)					
All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.					
 Windows		1.8	58.1MB	PRODUCT INFO	DOWNLOAD

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The high power Ruby on Rails™ IDE

3rdRail is a complete, intuitive integrated development environment (IDE) that delivers the power needed to dramatically accelerate Ruby on Rails Web Development.

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3rdRail™

3rdRail is a innovative and powerful IDE with features built from the ground up for Ruby on Rails development.

- Write applications faster, with fewer keystrokes using intelligent Code Completion
- Easily switch between the command line and IDE with Commanders
- Improve and simplify application design with 3rdRail's refactoring tools
- Easy navigation to where you need to be with Code Navigation and view all of a project's interdependencies with the Dependencies View
- Problem Detection and Correction provides detection of common Ruby and Rails coding errors.
- A complete, turnkey Ruby on Rails runtime environment including databases, Ruby, Rails, and the Gem manager
- Centralized license management and tool deployment with Embarcadero ToolCloud

Streamline development of dynamic, database-backed Web applications

3rdRail combines the straightforward yet powerful syntax of the Ruby language and the robust Rails framework with advanced productivity tools, 3rdRail streamlines the creation of database-backed web applications while retaining the full dynamic nature of Ruby programming. 3rdRail understands how a Ruby on Rails application works and the context of what the developer is doing.

3rdRail helps you write programs with accuracy and fewer keystrokes because you no longer need to remember fine points such as object types, methods and method signatures. 3rdRail predicts likely expectations based on conventions and semantics and is able to understand the context of what you are doing. Special productivity wizards combine numerous related steps into single operations, and embedded Web development tools - including Mozilla browser, JavaScript debugging, Document Object Model inspection and request monitoring - help developers easily edit and manage all website artifacts.

More Information

- [Why 3rdRail?](#)
- [What's New in 2.0?](#)

Need all the power of 3rdRail, but just for Ruby (non-Rails) development? Check out [TurboRuby](#), the high performance IDE for Ruby!

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Next generation Delphi development solution for .NET and Mono.
- [InterBase® SMP](#)
The powerful database for embedded and enterprise applications.

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- [DB PowerStudio XE, Developer Edition](#)
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DB PowerStudio XE, Developer Edition

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"Most of our developers work on a single platform but have to go back and maintain legacy code on another platform,

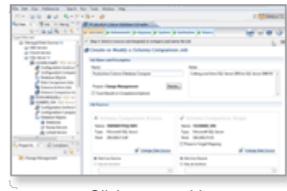
XE gives us one tool, a single interface to streamline managing multiple database platforms, saving us time, money and hassle."

- Doug MacDiarmid, Applications Support Specialist, Synarc
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- Work with multiple database brands and versions from a single toolset
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Full-featured SQL IDE helps you write quality SQL faster. This easy-to-use SQL IDE also encourages team collaboration and can connect to source control systems.



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Prevent, find, and fix performance issues via visual SQL profiling and tuning. Eliminate performance bottlenecks and fix in minutes what would have previously taken hours or days.



DB Change Manager XE

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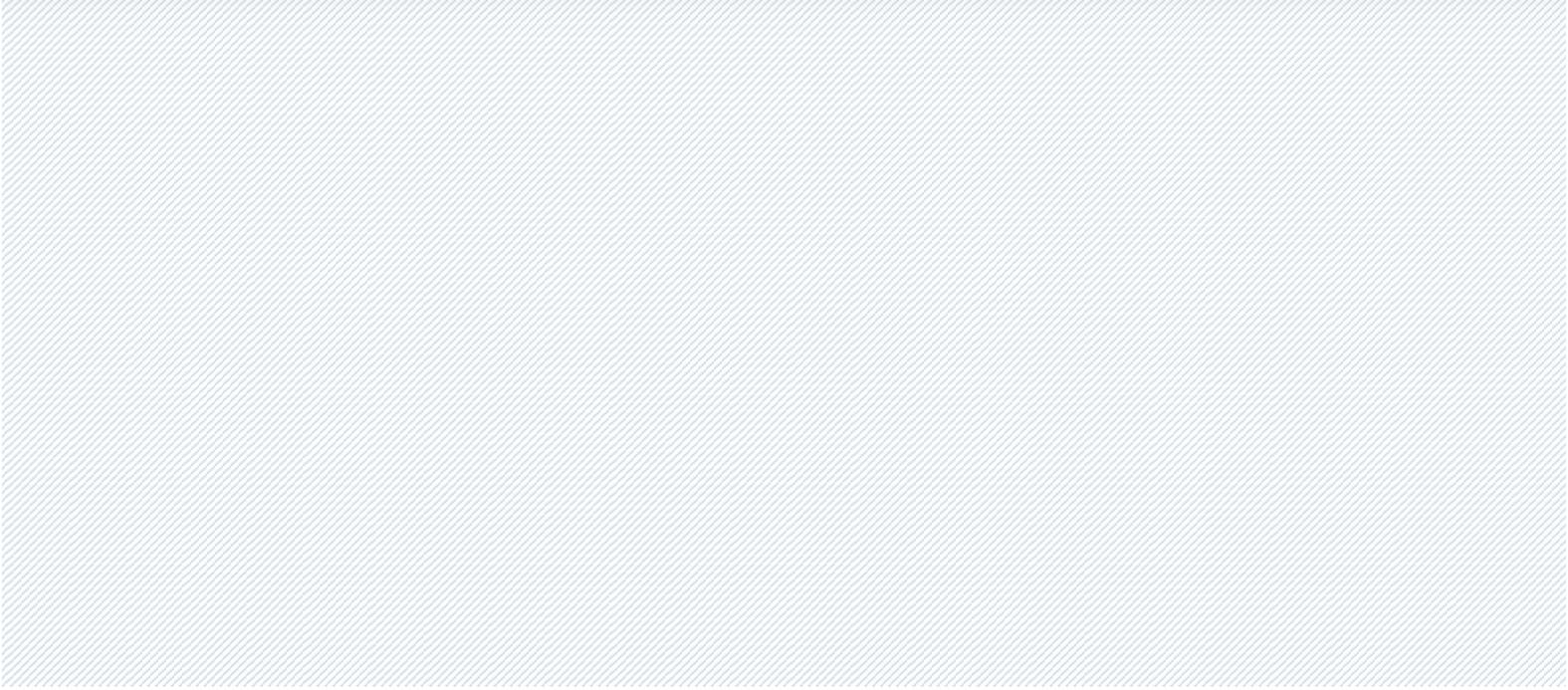
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DBArtisan XE

DBArtisan XE empowers DBAs to maximize the availability, performance, and security of their databases with a single, heterogeneous tool for managing all database platforms. It's the newest addition to the DBArtisan family and includes centralized license management and tool provisioning, with industry leading "zero-install" deployment capability. These advanced features can save significant time when it comes to managing your tool environment.

The optional [Embarcadero Analyst Pack](#) add-on includes advanced space, capacity, and performance management capabilities to help you prevent storage-related problems, trend data and object growth over time, and pinpoint performance bottlenecks.

Key features in DBArtisan XE include:

- Comprehensive graphical editors and wizards to boost productivity, streamline routine tasks, and reduce errors so you can manage larger, more complex databases
- SQL debuggers and profilers to speed troubleshooting and optimizing of SQL code
- True heterogeneous tool supporting all major DBMSes from a single interface
- Centralized license management and tool deployment with [Embarcadero® ToolCloud™](#)
- Run tools without installing locally; avoid conflicts when running multiple versions with [Embarcadero® InstantOn™](#)

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DBArtisan XE How does it stack up?

	Embarcadero DBArtisan XE	Quest®	DBMS Vendor Tools
Heterogeneous, one database administration tool for all platforms	Yes	No	No
Single GUI interface for all platforms	Yes	No	Yes
Flexible, network-based licensing	Yes	Some	Some
Optimizations for storage and recovery	Yes	No	No
Centralized tool provisioning and access management	Yes	No	No
Seamless, click-to-run system	Yes	No	No
Upgradable to complete DBA tool stack in one license	Yes	No	No

"DBArtisan has eliminated the drudgery of many DBA-related tasks across multiple platforms and has taken our site from the Flintstones to the Jetsons." - *Cristian Speranta, President, D8Base Systems, Inc.*

New in DBArtisan 8.7

New in DBArtisan – New Object Filtering, Enhanced SQL Editor, Data source Management, Z/OS enhancements and Unicode support	Schema , SQL, data management - full knowledge of the underlying DBMS system catalog, syntax, and alteration rules	Optional Analyst Pack – Collection of performance, capacity planning, and space analysis tools
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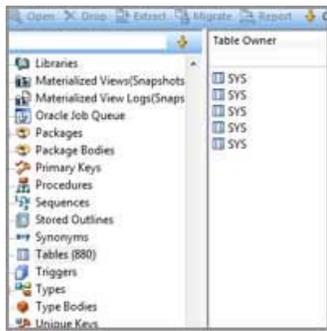
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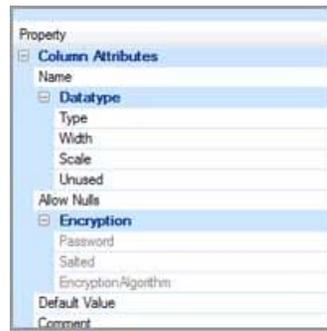
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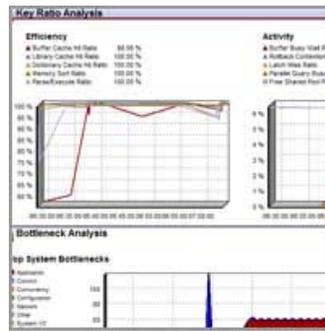
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- [Graphical object editors](#) for object creation, drop, and extended alter
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- Real-time database and OS [performance diagnostics](#)
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- Current Version: XE
- Prior Version: N/A
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Free 14-day trial of DBArtisan XE Pro. This trial version is a fully-functional version of DBArtisan with deep, native support for all major DBMS platforms including Oracle, SQL Server, Sybase ASE, and IBM DB2 for LUW and z/OS. This trial version also includes the DBArtisan Analyst Pack for advanced performance, space, and capacity analysis. DBArtisan XE trials are packaged as a single InstantOn file that runs without the need for conventional installation.

If you're already a DBArtisan customer, please visit the [Registered User Downloads](#) to download the latest release.

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Embarcadero All-Access 1.8 Trial

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All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.

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Rapid SQL XE

Embarcadero Rapid SQL XE enables developers and DBAs to produce high performing SQL code at lightening speeds. With support for all major database platforms from a single interface, teams can standardize on one powerful heterogeneous SQL IDE tool.

Rapid SQL XE includes [centralized license management](#) and tool provisioning with Embarcadero's industry leading "zero-install" deployment capability. These advanced features can save significant time when it comes to managing your tool environment.

With Rapid SQL you can:

- Create high-quality SQL code faster
- Develop SQL code for up to seven popular database platforms – from a single interface
- Improve team collaboration and resource sharing, including seamless integration with source control systems
- Accelerate application development cycles with code assist, quick fixes, and debugging and profiling tools
- Produce on-the-fly, platform-specific language conversions
- Extend SQL skills into unfamiliar databases while the entire development team standardizes on one solution

Rapid SQL XE includes an Eclipse-based SQL IDE with integrated Java to SQL round-trip debuggers.

Rapid SQL XE comes complete with support for all major databases including IBM® DB2® for LUW, DB2® for z/OS, Firebird, InterBase, Microsoft® SQL Server, MySQL®, Oracle®, and Sybase®.

New in Rapid SQL 7.7

<p>New in Rapid SQL 7.7 - ISQL Editor enhancements include on-the-fly SQL syntax alerts, semantic validation, and SQL parsing</p>	<p>Object creation, visual query builder and SQL editing - full knowledge of the underlying DBMS system catalog, syntax, and alteration rules – for up to 7 major DBMSes</p>	<p>Collaboration and Project Management - comprehensive set of features to support team code management</p>
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Rapid SQL XE
Embarcadero vs. a Competitive SQL IDE

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Sybase	Included	Not Available
DB2 for LUW	Included	+\$1,500 (plus another install)
DB2 for z/OS	Included	+\$1,500 (plus another install)
MySQL	Included	Included (plus another install)
Firebird	Included	Not Available
InterBase	Included	Not Available
Microsoft SQL Server	Included	Not Available
1st Year Maintenance	Included	Included
Total	\$1,495 One application. Seven databases. Instant access. Centralized delivery & tracking.	\$5,060 spread over five separate applications to license, install and provision

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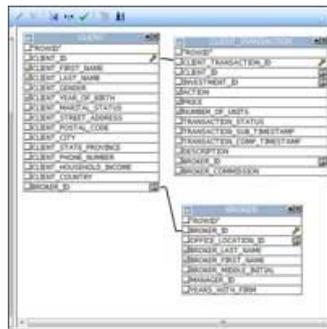
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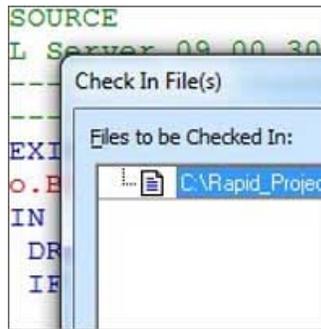
13  IN B_CURSOR FOR
14  SELECT A.BROKER_ID,
15         A.BROKER_FIRST_NAME,
16         A.BROKER_LAST_NAME,
17         SUM(BROKER_COMMISSION)
18  FROM   BROKER A,
19         CLIENT_TRANSACTION B
20  WHERE  B.TRANSACTION_COMP_T
21         A.BROKER_ID = B.BROK
22         A.
23  ORDER BY A
24         A.
25         A.
26  ORDER BY 4
27         MANAGER_ID Column - (GIM
28         OFFICE_LOCATION_ID Column
29  display
30         YEARS_WITH_FIRM Column
31  IN O CUR
    
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- Code complete with dynamic "walk-throughs"
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- Graphical object editors for object creation, drop, and extended alter
- Visual query builder
- Code templates



- Reverse-engineering
- Version Control
- Source Code Repository

Revision Information:

- Current Version: XE
- Prior Version: N/A
- Current Release: May 2010

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<p>If you're already a Rapid SQL customer, please visit the Registered User Downloads to download the latest release.</p>					
 Windows	English	XE (7.7.2)	134MB	PRODUCT INFO	DOWNLOAD
Rapid SQL Developer 2.1.3 Professional for Linux Trial					
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 Linux	English	2.1.3	173.9MB	PRODUCT INFO	DOWNLOAD
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All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.					
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Embarcadero DB Change Manager XE

Embarcadero® DB Change Manager™ XE helps database administrators and developers:

- Simplify, automate, and report on database changes
- Streamline development cycles
- Ensure availability, performance, and compliance

The XE family of products offer unique benefits at the most competitive price that you simply won't find in any other database change management solution:

- True heterogeneous tool supporting all DBMSes from a single interface, included in one product, one price, one license
- Run tools without installing locally; avoid conflicts when running multiple versions with [Embarcadero® InstantOn™](#)
- Centralized license management and tool deployment with [Embarcadero® ToolCloud™](#)

DB Change Manager XE's compare, synchronization, and auditing capabilities let you track and report on changes, roll out new releases, and pinpoint performance problems resulting from changes in data, schema and database configuration. By comparing a live database to a schema or configuration "snapshot" administrators can quickly identify changes and correct problems. And by monitoring configuration settings, DBAs can ensure compliance with regulatory policies and performance standards, and maintain overall database performance.

Feature Highlights

Schema Compare and Sync

Monitor Configuration Standards

Data Compare and Sync

Change Manager Product Editions Snapshot

Product Edition	InstantOn	ToolCloud	Schema Compare	Configuration Standards	Data Compare	Change Manager	Reporting	Support
Standard	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Advanced	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enterprise	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Key Features

- Heterogeneous tool, supporting all databases from a single interface
- Centralized license management and tool deployment with Embarcadero ToolCloud
- Schema "archive" capture, compare and synchronization
- Data compare and synchronization with custom mapping features
- Archive and compare database configuration settings
- Advanced alter script generation; handles object dependencies and preserves data
- Source Code Control (SCC) Integration
- Command-line API for scheduling jobs and event notification
- Data masking with shuffling and randomization

DB CHANGE MANAGER XE HOME

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- Live to live, live to archive, archive to archive and one-to-many compare
- Advanced alter generation
- Cross DBMS schema compare and sync

- Define expected database configuration values and ranges, and then run a comparison job to check for compliance.

- Compare test or reference data between tables or across entire schema
- Report on differences and synchronize changes

Revision Information:

- Current Version: XE
- Prior Version: 5.6
- Current Release: September 2010

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Windows		1.8	58.1MB	PRODUCT INFO	DOWNLOAD

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DB Optimizer XE

SQL profiling and tuning IDE

Embarcadero DB Optimizer maximizes database and application performance by enabling DBAs and developers to quickly discover, diagnose, and optimize poor-performing SQL.

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DB Optimizer XE

Embarcadero® DB Optimizer™ XE is a heterogeneous tool that maximizes database and application performance by quickly discovering, diagnosing, and optimizing poor-performing SQL. DB Optimizer XE empowers DBAs and developers to:

- Eliminate performance bottlenecks by visually profiling key metrics inside the database (CPU, I/O, wait times)
- Relate resource utilization to specific queries, and helping to visually tune problematic SQL.
- Eliminate performance bottlenecks in production databases and applications
- Develop, test, profile, and tune SQL performance with a single, easy-to-use IDE across all databases

The XE family of products offer unique benefits at the most competitive price that you simply won't find in any other solution:

- True heterogeneous tool supporting all DBMSes from a single interface included in one product, one price, one license
- Run tools without installing locally; avoid conflicts when running multiple versions with [Embarcadero® InstantOn™](#)
- Centralized license management and tool deployment with [Embarcadero® ToolCloud™](#)

The new DB Optimizer XE Enterprise edition includes [DB Performance Center XE](#). It is an advanced 24x7 monitoring option that leverages an agentless architecture, and includes customized alert thresholds, notifications, and escalations, as well as providing a unified view of the 'database health index' across both single and heterogeneous database environments. [See all DB Optimizer XE editions.](#)

Feature Highlights

<p>Visual SQL Tuning (VST) Diagrams - Taking SQL tuning beyond hints and SQL rewrites with new features for faster and more advanced tuning and analysis. New in DB Optimizer XE with enhanced statistics.</p>	<p>SQL Profiling, Tuning and Editing - Quickly pinpoint poor-performing SQL code and optimize using a single, easy to use IDE</p>	<p>SQL Stress Testing -The Load Editor stress tests SQL code to ensure performance gains are realized</p>
--	---	---

DB Optimizer Product Editions Snapshot

	DB Optimizer XE Standard	DB Optimizer XE Enterprise	DB Optimizer XE Enterprise	DB Optimizer XE Enterprise
SQL Profiling	Yes	Yes	Yes	Yes
SQL Tuning	Yes	Yes	Yes	Yes
SQL Stress Testing	Yes	Yes	Yes	Yes
SQL IDE	Yes	Yes	Yes	Yes
Visual SQL Tuning (VST)	Yes	Yes	Yes	Yes
Advanced Index Analysis	Yes	Yes	Yes	Yes
Batch Tuning	Yes	Yes	Yes	Yes
Continuous Profiling	Yes	Yes	Yes	Yes
Hint Injection	Yes	Yes	Yes	Yes
SQL Rewrites	Yes	Yes	Yes	Yes
Advanced Reporting	Yes	Yes	Yes	Yes
SQL Stress Testing	Yes	Yes	Yes	Yes
SQL IDE with Code Assist	Yes	Yes	Yes	Yes

Key Features:

- Graphical visualization of wait-time analysis
- Continuous profiling
- Batch tuning of DML statements, stored routines, entire SQL files
- Hint injection
- SQL rewrites
- Visual SQL Tuning (VST) diagrams
- Advanced index analysis with recommendations
- Robust reporting with execution statistics, profiling details, predicate analysis and explain plans
- SQL stress testing
- SQL IDE with code assist, error checking, debugging and real-time quick fixes

DB OPTIMIZER XE HOME

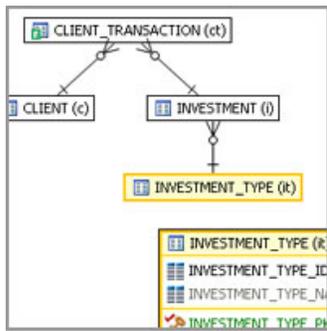
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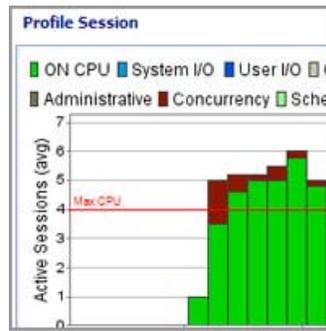
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- Visual SQL Tuning (VST) diagrams
- Color-coded Index Analysis

The screenshot shows a table titled 'SQL Statements and Cases' with a 'Name' column. The entries are: SELECT 1, [Missing a valid join criteria] transformation, LEADING1, INDEX_SS, LEADING3, FULL, USE_HASH, ORDERED, LEADING2, and USE_NL.

- Wait-time analysis
- Continuous profiling
- Hint injection
- SQL rewrites



- Simulate parallel users
- Measure over a set period of time or execution cycles

Revision Information:

- Current Version: XE
- Prior Version: 2.5.1
- Current Release: September 2010

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<p>If you're already a DB Optimizer customer, please visit the Registered User Downloads to download the latest release.</p>					
 Windows	English	XE (2.5.1)	218.1MB	PRODUCT INFO	DOWNLOAD
DB Performance Center XE Client Trial					
Fully functional 14-day trial of DB Performance Center XE Client.					
 Windows	English	XE (2.7.3)	49.5MB	PRODUCT INFO	DOWNLOAD
Embarcadero All-Access 1.8 Trial					
Embarcadero® All-Access Trial (v1.8)					
All-Access gives you easy access to Embarcadero's full range of tools to help you design, build, and run heterogeneous DBMS environments more efficiently. Download the lightweight client application to get tools for application development (for Windows, .NET, Java, PHP, and Ruby), SQL tuning, reverse engineering, data modeling, performance monitoring, database administration, schema comparison and more.					
 Windows		1.8	58.1MB	PRODUCT INFO	DOWNLOAD

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Embarcadero J Optimizer

Java™ profiling and tuning IDE

J Optimizer is a profiling and tuning IDE for delivering high-performance, high-quality, scalable Java applications.

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Embarcadero® J Optimizer™ is a comprehensive environment for identifying and resolving performance issues throughout the development life-cycle of Java programs and Java EE applications.

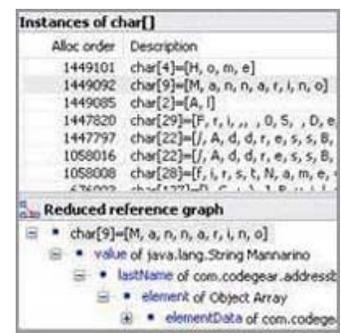
- Real-time analysis of CPU and memory utilization.
- Real-time detection of thread issues.
- Measure code quality and application complexity.
- Validate code against Java coding standards set across the organization.

J Optimizer's Memory and CPU Profiler helps developers find memory leaks, inefficient temporary-storage issues, CPU bottlenecks and unit test performance regressions. The Request Analyzer profiles the performance behavior of Java EE application code across common Java EE components such as JDBC, RMI, JSP, JNDI, EJBs, JMS, and Web service protocol containers. Developers can use J Optimizer's audits and metrics capabilities to measure the overall quality of the object design, the complexity and cohesion between objects, the extent of test coverage, and many other factors to help pinpoint potential maintenance, quality and performance issues.

J Optimizer supports profiling of Java applications running on today's most popular commercial and open source application servers including BEA WebLogic Application Server, IBM WebSphere, JBoss, Oracle Application Server, Apache Geronimo, Apache Tomcat, and Sun GlassFish.

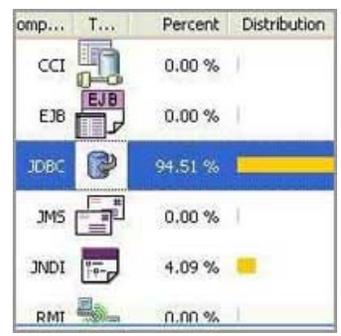
Feature Highlights

Memory and CPU Profiling - High-level performance-related data displayed in real time in order to determine whether a performance issue is related to CPU, memory, or both.



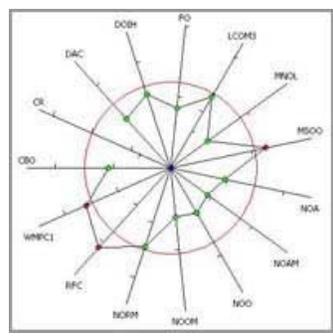
- Automatic Memory Leak Detector monitors the evolution of memory

Request Analyzer - Profile the performance behavior of Java EE application code across JDBC, JSP, JNDI, Enterprise JavaBeans, and JMS components.



- Drill-down performance information for Java EE components.

Audits and Metrics - provides developers and managers with measures of the quality and complexity of the project.



- Metrics evaluate object model complexity and quantify your code.

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usage.

- HotSpot Display lists methods where most time was spent.
- Real-time monitoring of object allocations.
- CPU Profiler measures pure CPU usage or time usage during a profiling session
- System Dashboard view provides a graphical display of the application time spent in Java EE components and total number of requests.
- System Composite view displays all of the Java EE events that have occurred in an application, in real time, in their proper hierarchy.
- Audits provide information on design issues, naming conventions, and other items which can impact code quality. Create specific QA sets for source code audits and metrics, and save them to a local file system, or as part of a project which can then be shared with the team.

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InterBase XE offers database and application development professionals high performance, scalable database technology essential to run mission critical applications. Extensive security mechanisms protect data at rest, over-the-wire and in backups. InterBase XE is easily deployable with a small footprint that supports heterogeneous O/S connectivity for Windows®, Linux, Solaris™, and Mac OS®X. And InterBase XE is one of the most economically priced ANSI-SQL RDBMS systems available on the market today.

InterBase has been proven in thousands of embedded, desktop, and server applications around the world. **Various editions** and flexible licensing meet specific end customer, OEM, ISV & VAR requirements

Centralized license management and tool deployment for InterBase is supported with Embarcadero ToolCloud

Revision Information:

- Current Version: InterBase XE (10.0.1.335 Windows, 10.0.0.305 Linux, Solaris, Mac)
- [Previous Release: InterBase SMP 2009 Update 2 \(9.0.3.437\)](#)
- Current Release: December 2010

"SpaSoft's customers require that our application respond within seconds. With InterBase's high performance and small size, the application is able to easily meet the demands of our clients. The performance is truly amazing"

– Penka Sevova, Product Development Director, PAR Springer-Miller Systems

InterBase XE Product Editions Snapshot

	Developer	Desktop	Server	ToolBox
Full-Featured ANSI-SQL	X	X	X	X
ACID-Compliant	X	X	X	X
Unkiosk Support	X	X	X	X
Encryption (DES)	X	X	X	X
Strong Encryption (AES)	-	X	X	X
Multi-Generational Architecture (MVCC)	X	X	X	X
Windows Support	X	X	X	X
Self-User	X	-	X	X
Linux Support	-	-	X	-
Mac OS X Support	-	-	X	-
Inter-Process Communication	-	-	X	X
VAR/ISV Pricing Available	X	X	X	X

Key Features:

- High-performance and scalable
- Near-zero administration and a self-tuning engine
- SQL 92 and ACID compliant
- Compact (3-4MB typical)
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- Multi-generational Architecture (MVCC)
- High-Availability
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 **ER/Studio® Portal** is a browser-based architecture and design tool that allows organizations to share, browse, and report on the metadata contained in the ER/Studio repository for improved data and metadata management practices.

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by David Intersimone February 4, 2011
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by Chris Pattinson January 26, 2011
 Ongoing goals of the QA organization are to: Keep test cycles as quick as possible. Drive towards high levels of test coverage. Provide concise and i...

Upcoming mobile, multi-tier, data management, PHP, Delphi and C++ webinars

by David Intersimone January 24, 2011
 There are several cool live webinars this week and next week focused on mobile, data management, multi-tier, PHP, Delphi, C++ and Facebook application...

Delphi Labs: New "Server Methods Lifecycle" episode is live!

by Pawel Glowacki January 22, 2011
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Embarcadero Annual RAD Studio/Delphi/C++Builder Quality Survey

by Chris Pattinson

January 21, 2011

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Elias Terman, Sr. Product Marketing Manager, Embarcadero Technologies

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Marco Cantù, <http://blog.marcocantu.com>
November 2009
Products: Delphi



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Products: RAD Studio, Delphi Prism



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Products: ER/Studio



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[White Paper: Forrester Total Economic Impact™ \(TEI\) Study of Embarcadero DBArtisan](#)

By Forrester Consulting
Forrester examined the financial impact and potential return on investment (ROI) an organization can realize by deploying DBArtisan. The findings of the Forrester TEI study concluded that DBArtisan generated an 857 percent risk-adjusted ROI, and a three-month horizon to regain the investment.. Product: DBArtisan
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[White Paper: Ensuring Personally Identifiable Information \(PII\) Security within U.S. Government Agencies](#)
Using Data Management Tools to Ensure FISMA and Privacy Act Compliance
Embarcadero Technologies with contributions from Ron Lewis, Senior Security Analyst, CDO Technologies
Summary: Many different organizations collect Personally Identifiable Information (PII), ranging from hospitals and banks to apartment complexes and utility companies. This paper explains who Embarcadero Technologies offers software solutions that can help U.S. government agencies and departments address some of the most critical requirements set forth in mandates, as they pertain to PII contained within database systems, and to the requirements of FISMA.
Products: Change Manager, DBArtisan, ER/Studio, Rapid SQL



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Greg Keller, Embarcadero Technologies
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[White Paper: The Five Things Data Architects Need to Know About Collaborating with their Business Users](#)
Five Things You Can Do Right Now to Improve Collaboration and Results for Business Users
Karen Lopez, InfoAdvisors
Summary: While data architects like to collaborate amongst themselves using their own procedures and language, they need to consider improving our interaction with our business clients. This paper discusses five things you can do right now to improve collaboration with business users.
Products: ER/Studio, ER/Studio Enterprise Portal

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Using JBuilder to Overcome the Big Four Offshore Development Challenges: Application Quality, Application Performance, Distributed Team Collaboration, and Productivity



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Nick Hodges, Embarcadero Technologies
Products: Delphi, RAD Studio



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[White Paper: Steps Data Architects Should Take to Improve Developer and DBA Collaboration for an Easier Project, a Better Product and a Stronger Team](#)
Karen Lopez, InfoAdvisors
Summary: Your data models are brilliant... but only if the DBAs and developers are on the same page. Get more value through collaboration. How? In this white paper, Karen Lopez from InfoAdvisors, Inc. discusses strategies on how to build a little more teamwork and collaboration and get a lot more value from data modeling.
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A Review of Delphi/400 and Delphi/400 for PHP
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Products: Delphi/400

[White Paper: Ringing the Changes for Change Management](#)
Embarcadero Technologies



Summary: As modern database change management techniques for the Sybase DBA become more sophisticated, there is an inherent need for practitioners to be aware of the increasingly powerful tools available to them.

Products: Change Manager



[Tech Notes: Selecting the Right Change Management Solution](#)

Key Factors to Consider When Evaluating Change Management Tools for Your Databases and Teams
Embarcadero Technologies

Products: Change Manager



[White Paper: Java Development Productivity and Quality using Eclipse: A Comparative Study of Commercial Eclipse-based IDEs](#)

Summary: The productivity benefits of using commercial Eclipse-based Java IDE products from IBM (IBM Rational Application Developer), Genuitec (MyEclipse), and CodeGear (JBuilder) compared to the freely downloadable baseline Eclipse configuration.

Cost Xpert Group

Products: JBuilder



[White Paper: Managing Data Strategically](#)

An IDC Executive Brief for Embarcadero Technologies

Summary: The demand for nimble and flexible business processes has driven interest in developing a dynamic enterprise, which in turn requires dynamic information technology. Dynamic IT includes the requirement of "on demand" or "real time" data access and ability to deliver just-in-time information that's useful and actionable, and can fuel event-driven IT actions. This means using all the information inside an organization that may be currently bottled up in relational tables, formatted files, discrete online content documents and systems, and email by putting it all together in service of the organization's mission. It means managing data as a strategic asset. This Brief examines strategies for the systematic use, reuse, and understanding of data, as well as the architecture for ensuring data availability and security.

Products: DBArtisan, Rapid SQL



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Embarcadero Technologies

Products: ER/Studio



[RAD Studio 2010 Reviewer Guide JP](#)

Products: C++Builder, Delphi, Delphi Prism, RAD Studio



[All-Access TCO Comparison Report JP](#)

TCO 較レポート - アプリケーション開発ツール/データベースツールの総所有コスト TCO の削減

今日の経済状況で 要が低迷し、業務管理が厳しくなり、ITの予算やリソースが縮小する中、企業はどこも、積極的にコストを削減し IT 運用を効率的に行う方法を探しています。



[Delphi XE Reviewers Guide JP](#)

Products: Delphi



[RAD Studio XE Reviewers Guide JP](#)

Products: RAD Studio



[High Performance DB2 DBA](#)

By Scott Walz, Sr. Director of Product Management at Embarcadero Technologies
December 2010

Products: DBArtisan



[Enterprise Data Modeling: 7 Mistakes You Can't Afford to Make](#)

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Karen López, I.S.P. - InfoAdvisors

Products: ER/Studio, ER/Studio Business Architect, ER/Studio Data Architect, ER/Studio Portal, ER/Studio

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[Embarcadero Announces DB PowerStudio for Sybase ASE](#)

February 28, 2011

Prominent tools such as DBArtisan and Rapid SQL combined into a software suite for Sybase ASE database development, administration and performance tuning. SAN FRANCISCO – Feb. 28, 2011 – Embarcadero is equipping Sybase ASE developers and DBAs with a toolset to simplify their development, database administration and performance tuning tasks. The new DB PowerStudio for Sybase ASE combines several of Embarcadero's most popular database tools into an aggressively priced suite. The toolset helps Syb..

[Embarcadero bringt Toolpalette für die Optimierung von Oracle Datenbanken](#)

February 25, 2011

Frankfurt - 23. Februar 2011. Embarcadero stellt Oracle-Entwicklern und -DBAs eine neue Toolpalette zur Verfügung, mit der sich eine Vielzahl von Aufgaben der Datenbankentwicklung und -verwaltung für Oracle-Datenbanken optimieren lässt. Die neue Toolpalette kombiniert unter dem Namen "DB PowerStudio for Oracle" einige der populärsten Datenbanktools von Embarcadero zu einer attraktiven Suite. Diese ermöglicht Oracle-Spezialisten eine erhebliche Verkürzung der Entwicklungszeiten, eine Mini..

[Embarcadero Announces DB PowerStudio for Oracle](#)

February 14, 2011

Toolset streamlines Oracle database development, administration and performance tuning. SAN FRANCISCO – Feb. 14, 2011 – Embarcadero is arming Oracle developers and DBAs with a toolset designed to streamline many of the most common and complex tasks associated with developing, administering and optimizing Oracle databases. The new toolset, dubbed DB PowerStudio for Oracle, combines several of Embarcadero's most popular database tools into an aggressively priced suite that makes it easier fo..

[Embarcadero Presents an Expert Roundtable: Avoiding the Seven Deadly Data Modeling Mistakes](#)

February 10, 2011

SAN FRANCISCO – Feb. 10, 2011 — Join a group of data modeling experts for a free, one-hour webinar on Wednesday, Feb. 16 at 11 a.m. PST and learn how to avoid the seven data modeling mistakes you can't afford to make. Experts will share their "in the trenches" data modeling experiences, and offer ideas for establishing a set of best practices. Karen Lopez, principal consultant for InfoAdvisors, will moderate the discussion, and will be joined by Matt Estes, director of data architectur..

[エンバカデロ、DB PowerStudio for SQL Serverを発表](#)

February 4, 2011

2011年2月7日エンバカデロ・テクノロジーズ Microsoft SQL Server向けデータベース開発、管理、パフォーマンスチューニングをサポートするスイート製品を発表、あわせて既 ユーザー向けに3月末まで購入可能な特価キャンペーンを開始 ..

[エンバカデロ、C++Builder StarterとDelphi Starterを本日より販売開始。従来エディションの2割以下の価格で購入可能](#)

January 31, 2011

2011年2月1日エンバカデロ・テクノロジーズ のプログラマ、学生、フリーウェア シェアウェア開発者、スタートアップ企業の開発者が、低コストで 績あるビジュアル開発ツールを利用可能に ..

[Embarcadero Introduces Starter Editions of C++Builder and Delphi Rapid Application Development Environments](#)

January 31, 2011

Low-cost versions of popular software development tools now available for hobbyists, students, emerging markets. SAN FRANCISCO, Calif. – Jan. 31, 2011— Embarcadero Technologies, a leading provider of multi-platform database tools and developer software, today introduced Starter editions of C++Builder and Delphi, its popular rapid application development (RAD) frameworks. These new entry-level versions give independent developers, students and micro businesses low-cost access to award-winnin..

[Embarcadero realiza Delphi Meeting no Brasil](#)

January 27, 2011

Novidades em aplicações de qualidade e escaláveis com Delphi XE e DataSnap no Delphi Meeting 2011. São Paulo, 27 de Janeiro de 2011 – A Embarcadero Technologies – empresa líder no fornecimento de ferramentas de bancos de dados multiplataformas e de desenvolvimento de software – está organizando um "road show" que percorrerá 12 cidades brasileiras para mostrar as novidades do Delphi XE e DataSnap. A participação no Delphi Meeting 2011 é gratuita e terá início no pr ..

[Embarcadero Announces DB PowerStudio for SQL Server Developers and DBAs](#)

January 24, 2011

Toolset simplifies SQL Server database development, administration and performance tuning. SAN FRANCISCO – Jan. 24, 2011 – Embarcadero is arming SQL Server developers and DBAs with a toolset designed to simplify many of the most common and complex tasks associated with developing, administering and optimizing SQL Server databases. The new toolset, dubbed DB PowerStudio for SQL Server, combines several of Embarcadero's most popular database tools into a lower-cost studio offering that makes..

[エンバカデロ、軽量・ハイパフォーマンスデータベースの InterBase® XE日本語 を発表](#)

January 6, 2011

2011年1月6日エンバカデロ・テクノロジーズ 64-bitネイティブサーバーによりデータ処理能力とパフォーマンスを 幅に向上 ..

[Embarcadero Announces ER/Studio XE Japanese Edition](#)

January 4, 2011

NTT Data Further Enhances Productivity with ToolCloud Technology for Centralized, Enterprise-Wide Tools Licensing and Provisioning. SAN FRANCISCO – Jan. 4, 2011 — Embarcadero Technologies, a leading provider of multi-platform database tools and developer software, today announced the availability of ER/Studio® XE Japanese Edition, its award-winning database design and data modeling tool suite for Japan market. This latest version offers improvements in the user experience, enhanced scalability.

[Cloud Computing to Have the Greatest Impact on Database Industry, According to Study](#)

December 6, 2010

Survey of DBAs also reveals their professional challenges, trends and what keeps them up at night. SAN FRANCISCO – Dec. 6, 2010 — Databases in the cloud will impact the database industry more than any other upcoming technology, according to a recent Database Trends Survey of more than 1,200 database professionals. More than one-third of survey respondents (34%) selected databases in the cloud as the technology destined to wield the greatest impact on the community. Virtualization ranked second.

[エンバカデロ、データモデリングツールの ER/Studio XE を発表](#)

November 29, 2010

2010年11月30日エンバカデロ・テクノロジーズ NTTデータでバージョンを採用、プライベートクラウド形式で全社レベルのオンラインツール管理・供給を開始 ..

[Embarcadero ER/Studio XE Introduces More Scalable Environment for Database and Data Warehouse Modeling](#)

November 9, 2010

Embarcadero partners with Netezza to expand data warehouse system support. SAN FRANCISCO – Nov. 9, 2010 – Embarcadero Technologies, Inc. today announced the availability of ER/Studio® XE, its award-winning database design and data modeling tool suite. This latest version offers improvements in the user experience, enhanced scalability and performance, and expanded database management system (DBMS) support for Netezza's TwinFin appliance running versions 5.0 and 4.6. Embarcadero's ER/Studio..

[72% of DBAs Manage at Least Two Types of Database Platforms, According to New Survey](#)

October 25, 2010

Mergers and acquisitions leading to more multi-platform DBMS environments. SAN FRANCISCO – Oct. 25, 2010 — Managing multiple database platforms has become the norm rather than an exception for database administrators (DBAs). A new Database Trends Survey that shows 72% of DBAs manage at least two types of database management systems. Of those surveyed, 20% reported managing one database platform, 33% said they manage two, 25% said three, 8% said four, and 14% said they manage five or more...



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Effective Date: January 1, 2009

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