

1장

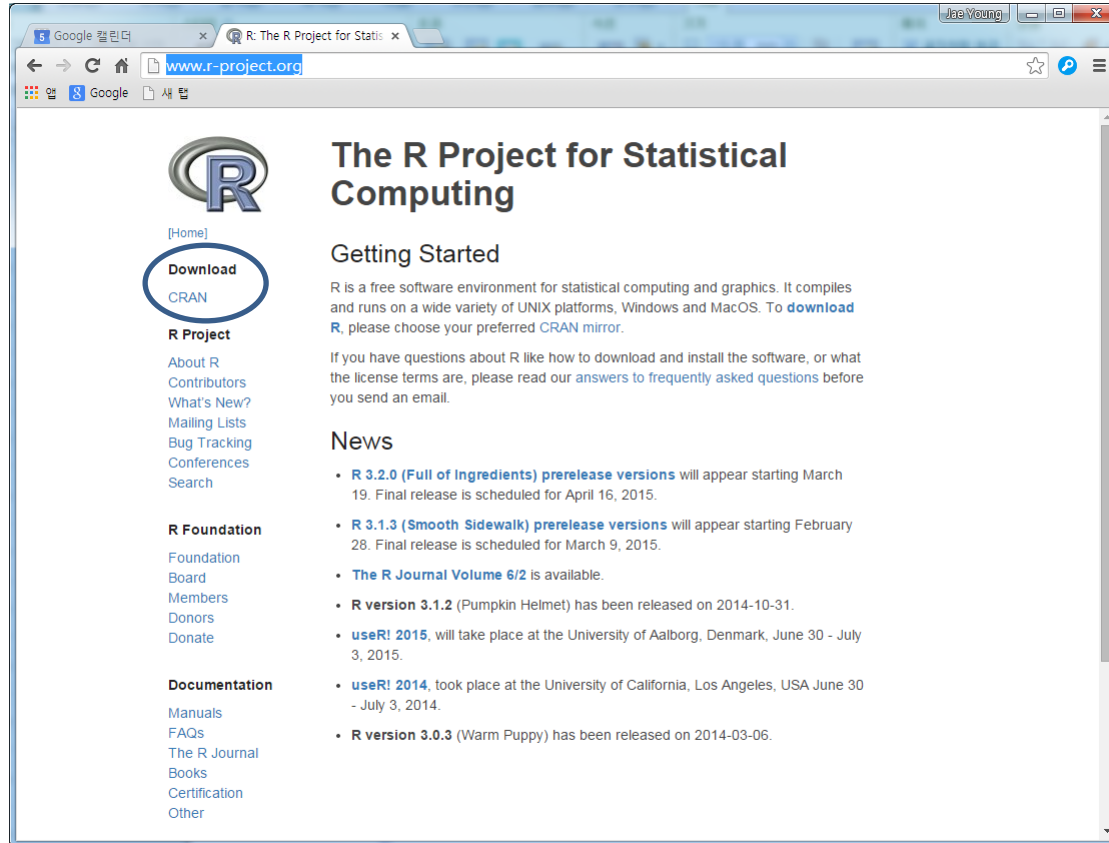
R프로그래밍을 위한 환경 준비하기

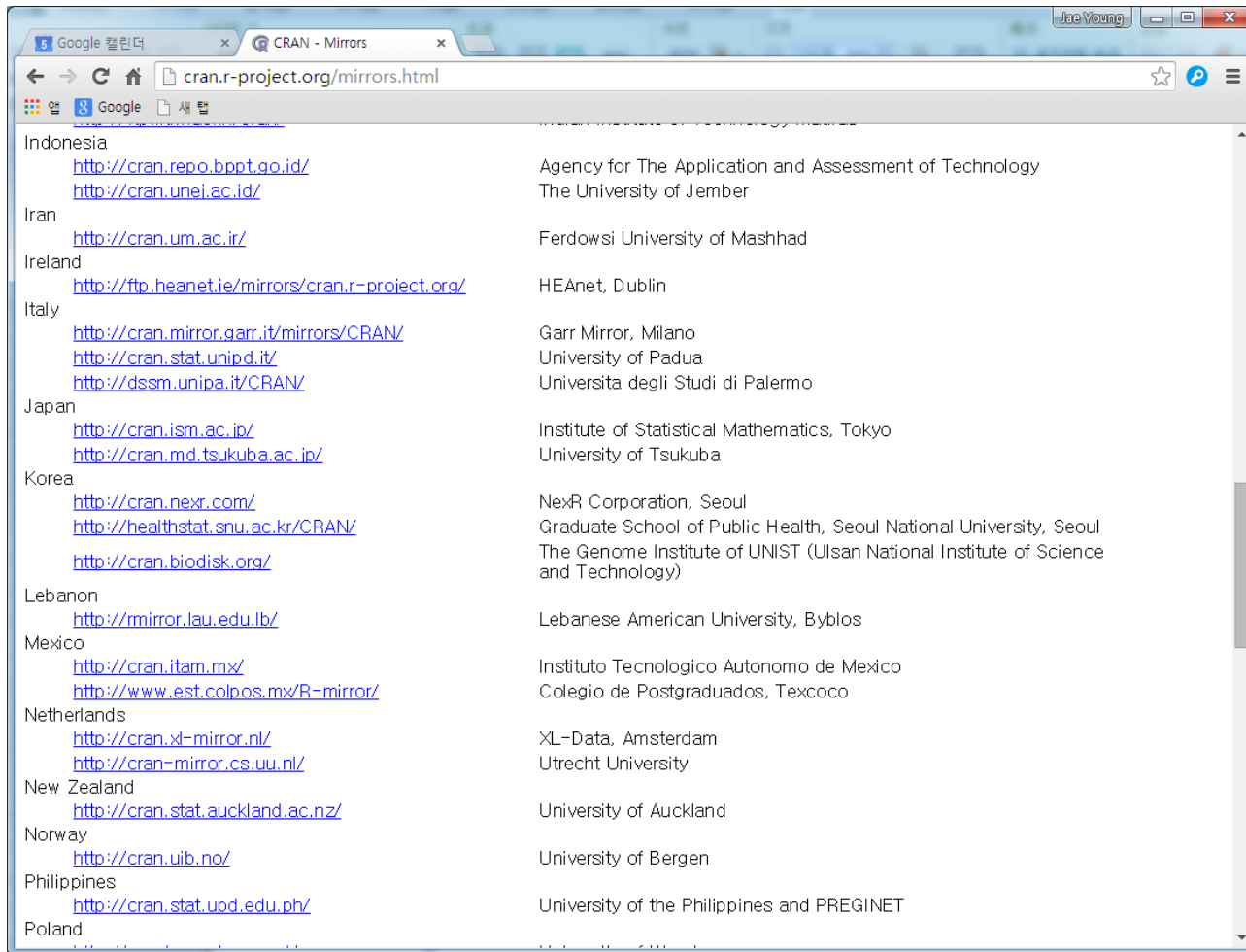
Why R?

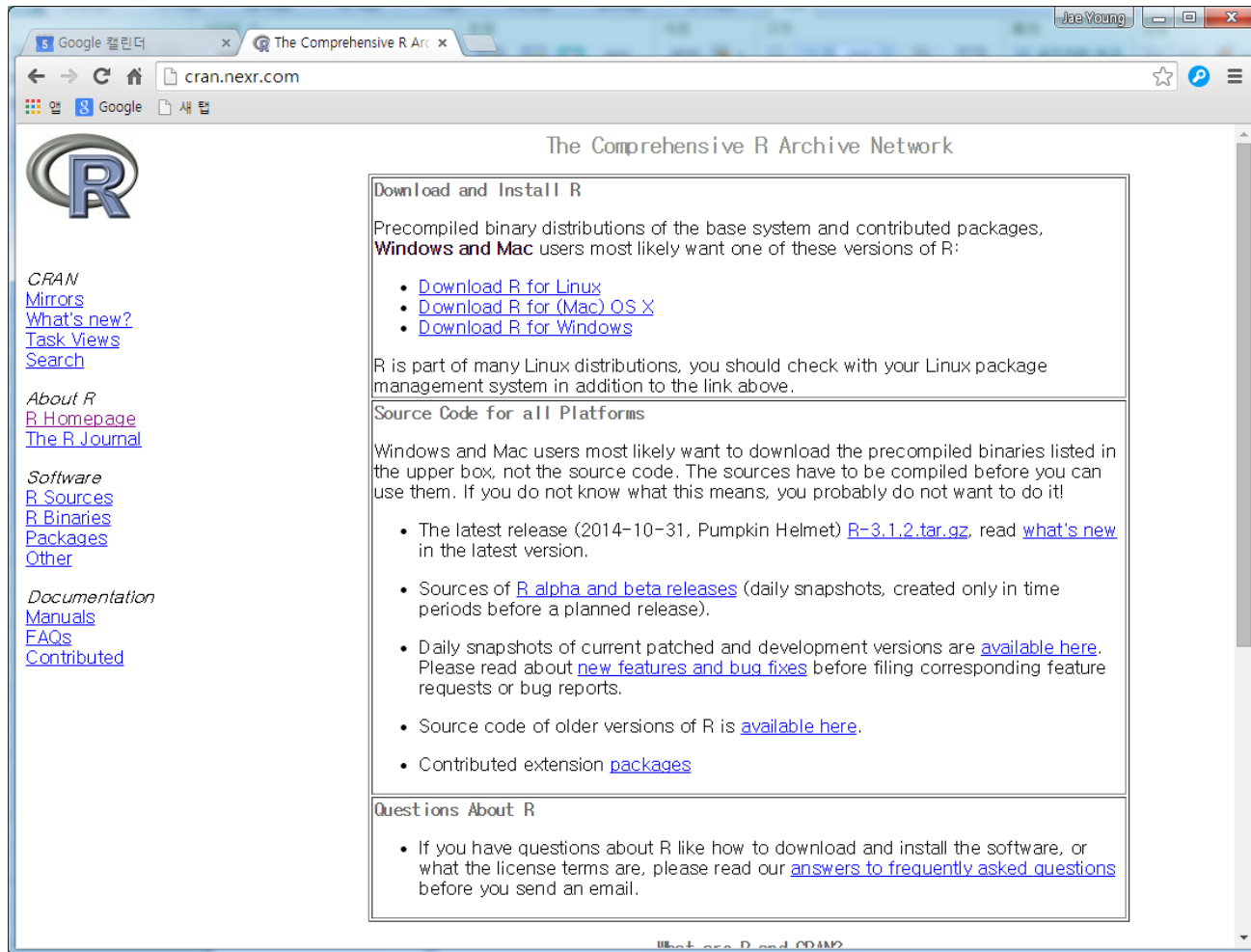
- 통계적인 자료분석이나 그래픽에 이용되는 언어 + 패키지
- 객체 지향적(Object Oriented)인 언어로서 사용자가 원하는 일련의 과정을 쉽게 구현가능
- 장점
 - 무료
 - 다양한 데이터 분석 패키지 (3,000개 이상)
 - 우수한 그래픽 환경
- 90년대 뉴질랜드 오클랜드(Auckland) 대학의 로스 이하카(Ross Ihaka)와 로버트 젠틀맨(Robert Gentleman) 교수 주도

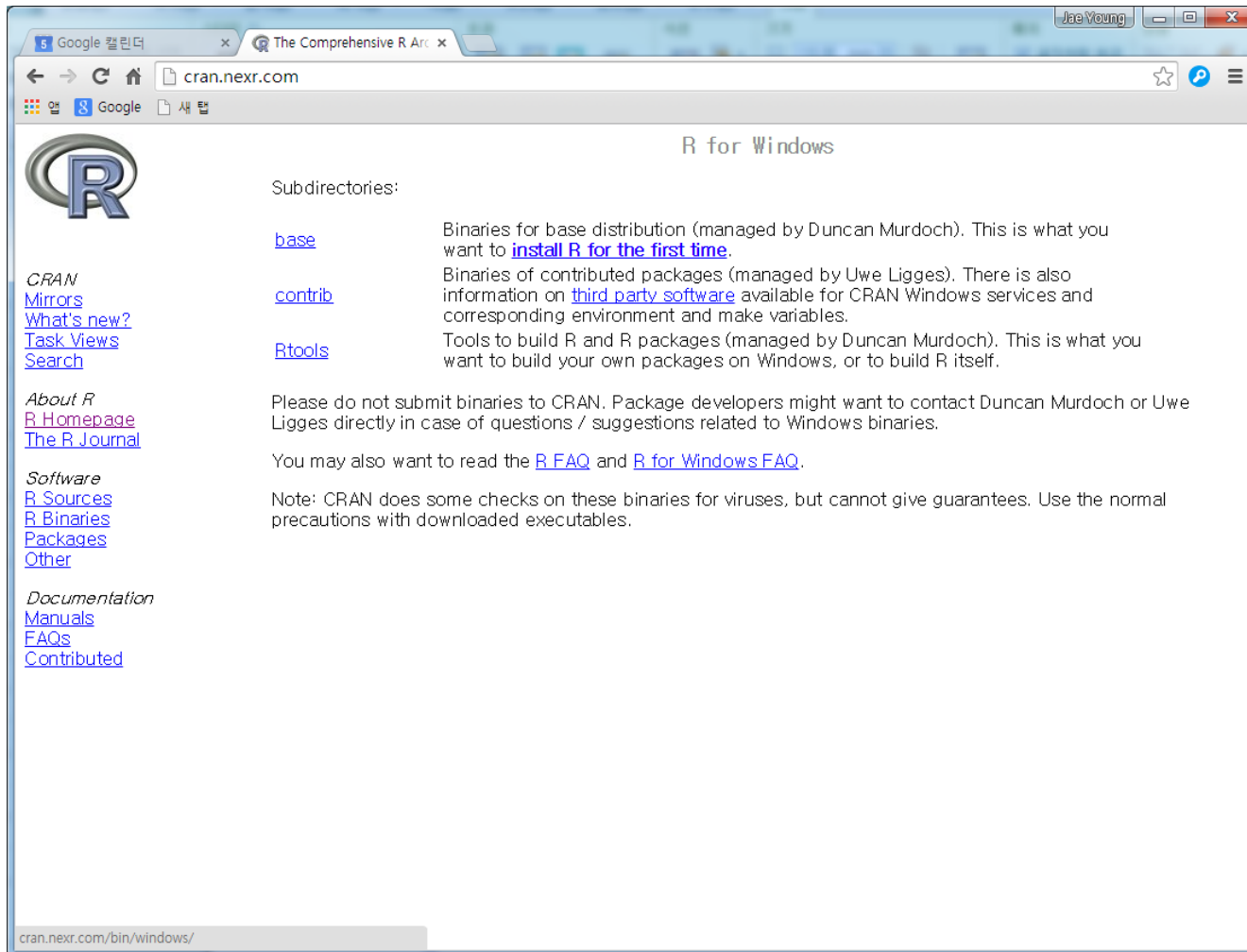
설치

- R 홈페이지(<http://www.r-project.org>)에 접속










Google 캘린더 x The Comprehensive R Arc x Joe Young

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R-3.1.2 for Windows (32/64 bit)

[Download R 3.1.2 for Windows](#) (54 megabytes, 32/64 bit)

[Installation and other instructions](#)

[New features in this version](#)

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

Frequently asked questions

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

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

Other builds

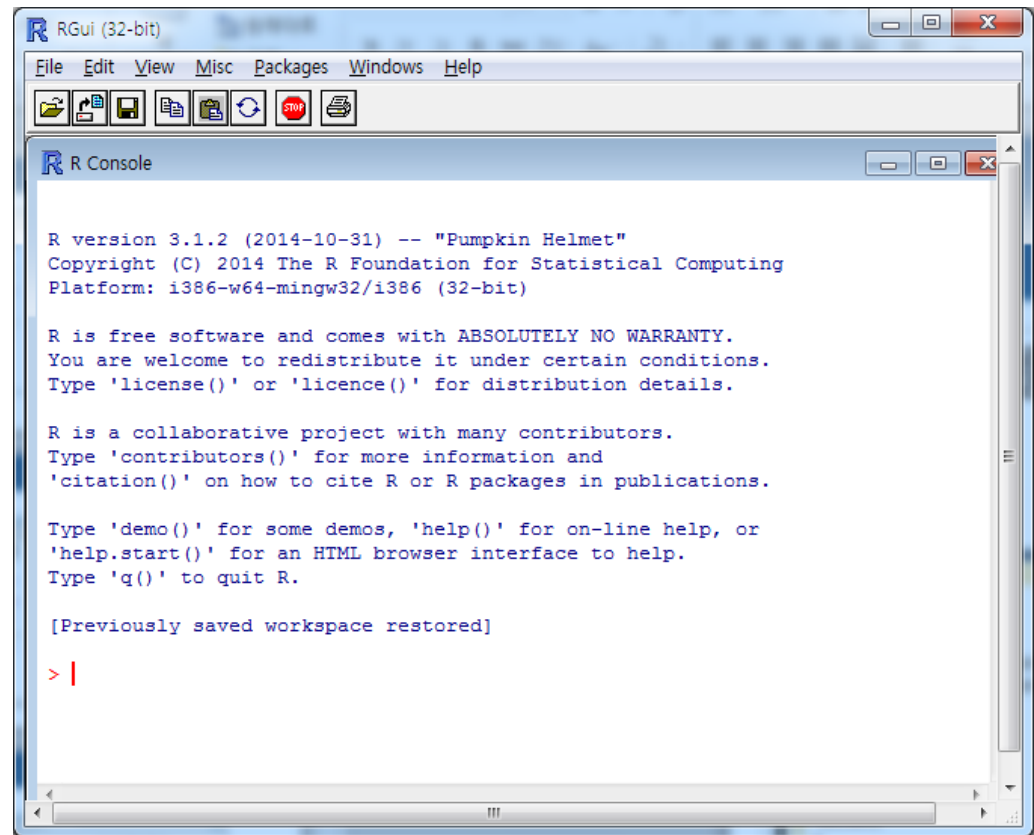
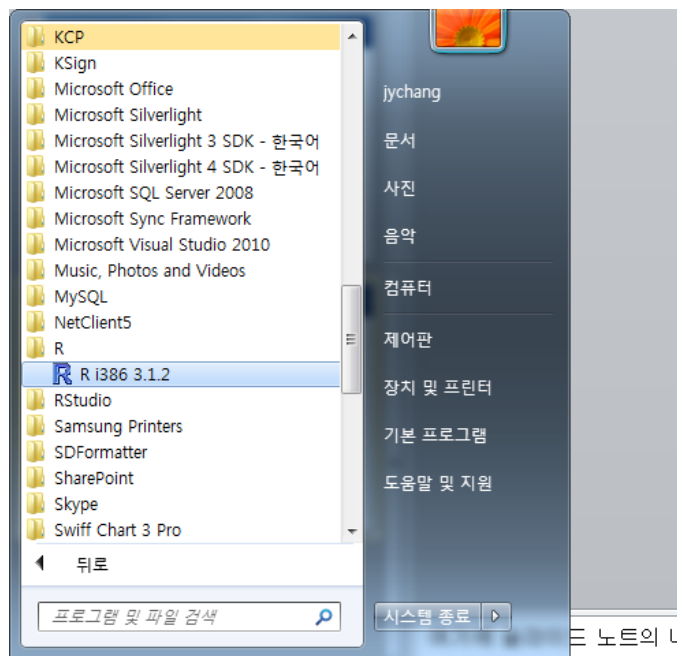
- [Test builds \(to become R 3.1.3\)](#) are now available. Please test them!
- Patches to this release are incorporated in the [r-patched snapshot build](#).
- A build of the development version (which will eventually become the next major release of R) is available in the [r-devel snapshot build](#).
- [Previous releases](#)

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

Last change: 2014-10-31, by Duncan Murdoch

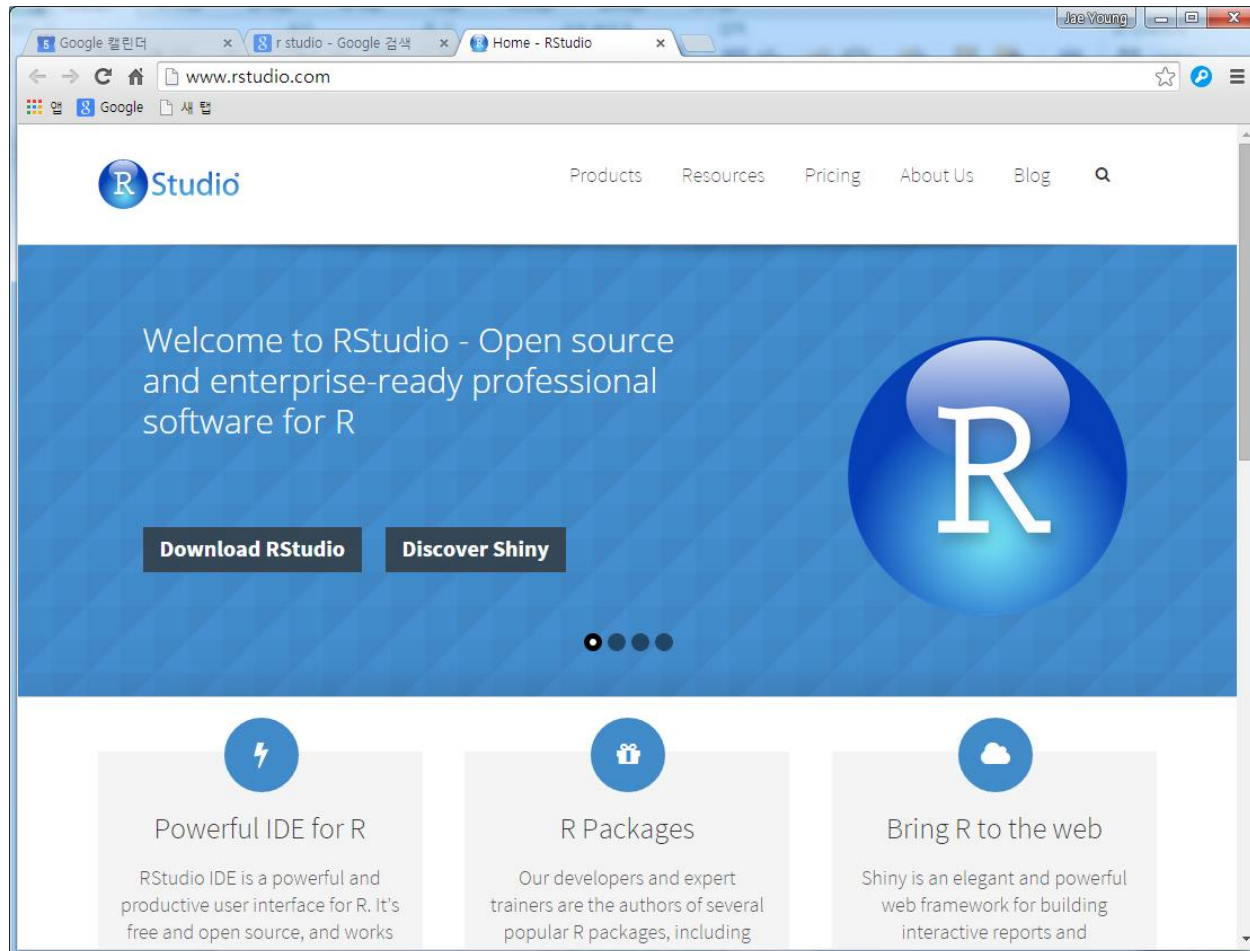
cran.nexr.com/bin/windows/base/

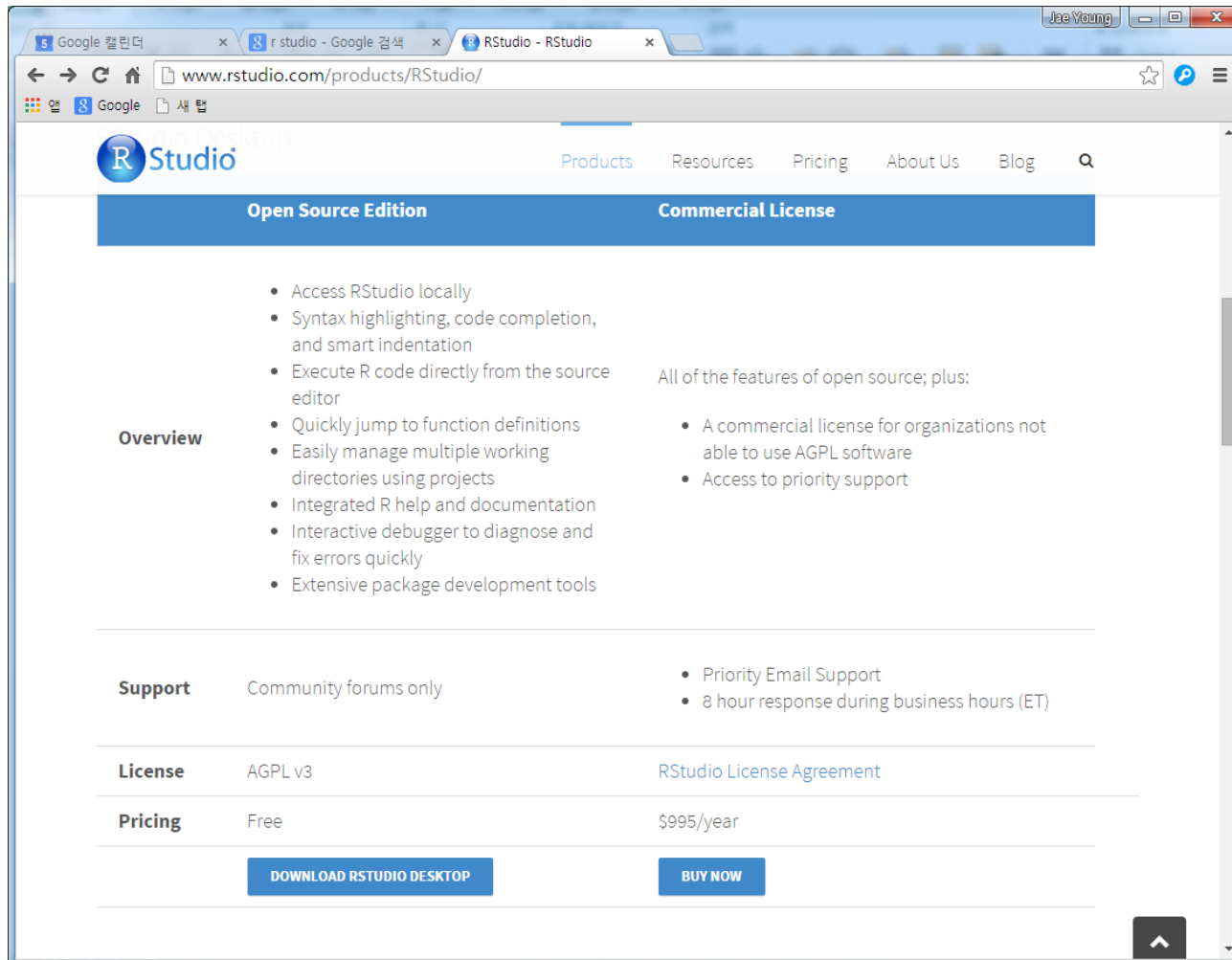
실행



RStudio 설치

- <http://www.rstudio.com>





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Download RStudio

Home / Overview / RStudio / Download RStudio

RStudio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, as well as tools for plotting, history, debugging and workspace management.

If you run R on a Linux server and want to enable users to remotely access RStudio using a web browser [please download RStudio Server](#).

Do you need support or a commercial license?
[Check out our commercial offerings](#)



Share your R code on the web with Shiny
[Click here to learn more](#)

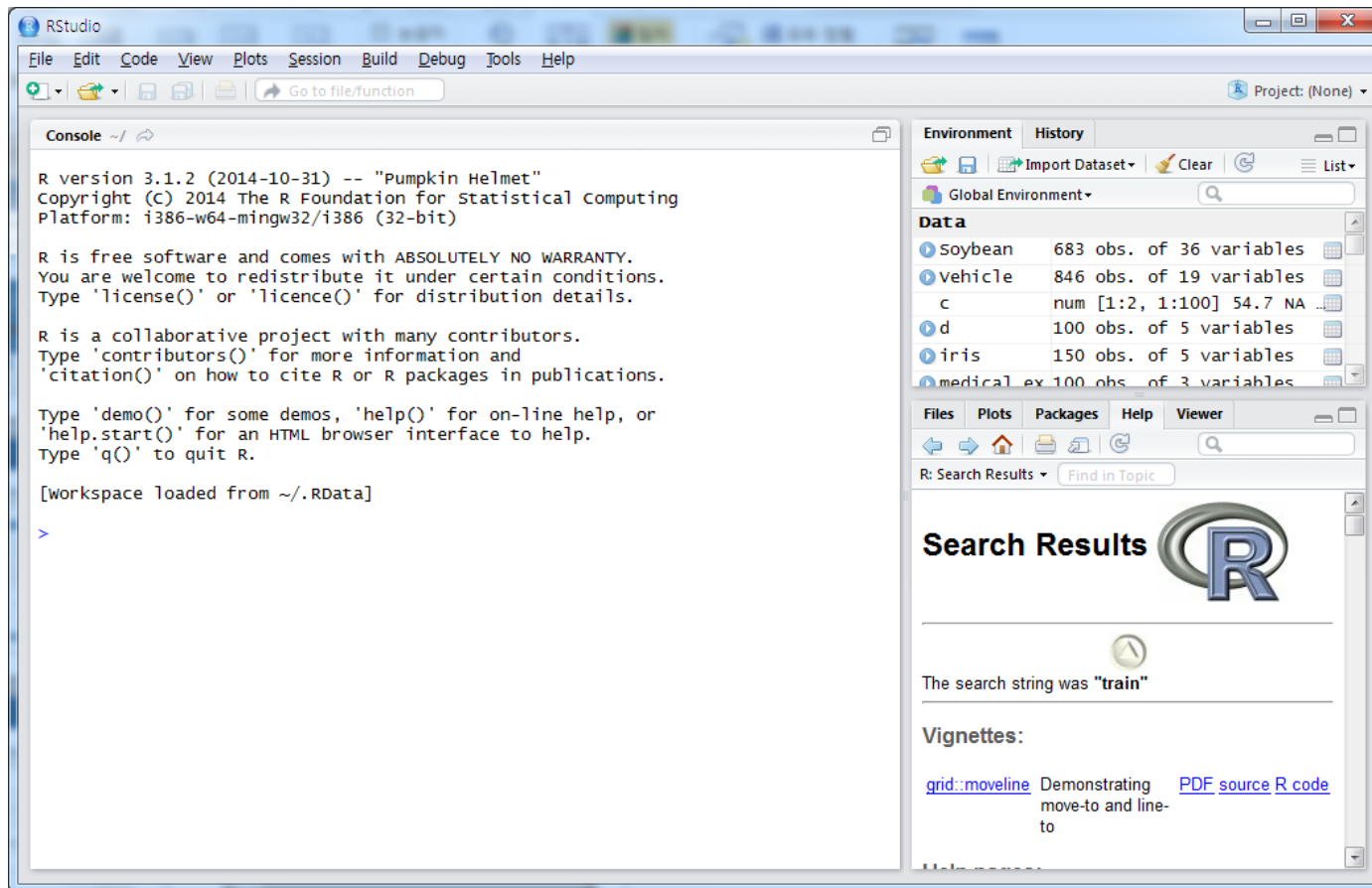
RStudio Desktop 0.98.1102 — Release Notes

RStudio requires R 2.11.1 (or higher). If you don't already have R, you can download it [here](#).

Installers for ALL Platforms

Installers	Size	Date	MD5
RStudio 0.98.1102 - Windows XP/Vista/7/8	47.4 MB	2015-02-07	553b53f8b467ba31f21c672686662152
RStudio 0.98.1102 - Mac OS X 10.6+ (64-bit)	43.7 MB	2015-02-07	045e903ad09e9c8dbf65cf08ff16023d
RStudio 0.98.1102 - Debian 6+/Ubuntu 10.04+ (32-bit)	49.5 MB	2015-02-07	90ba83bf5a791ca3bcc12e1faf37d5ae
RStudio 0.98.1102 - Debian 6+/Ubuntu 10.04+ (64-bit)	51.4 MB	2015-02-07	f4d479f62352c5a709d330167ef310dc
RStudio 0.98.1102 - Fedora 13+/RedHat 7+/openSUSE 11.4+ (32-bit)	49.9 MB	2015-02-07	91b64c1bbddfde387b523aa0cc0036df
www.rstudio.com/pricing/ 1.4+ (64-bit)	51.5 MB	2015-02-07	dac3eb2127d82fa0ef35e8c4773c1f6a

RStudio 실행화면



Rstudio에서 프로그램 실행방법

- Console에서 명령어로 실행
 - eg) `print("hello")`
 - eg) `seq(1:100)`
 - eg) `1+2`
- Newfile -> Rscript를 이용하여 파일편집(*.R) 후
 - 방법 1: Rstudio에서 Code -> RunRegion으로 배치 실행
 - 방법2: console에서
 - `source("data_load.R")` # 결과 출력 안됨
 - `source("data_load.R", echo=T)`
 - `source("D:/R/example1.R", echo=T)`

작업폴더 설정

- 작업 폴더 확인

```
> getwd()
```

```
[1] "C:/Users/am0600/Documents"
```

- 작업 폴더를 변경

```
> setwd("D:/R") # 경로 문자에 역슬래시가 아닌 슬래시를 사용함
```

```
> getwd()
```

```
[1] "D:/R"
```

```
> setwd("D:\\R") # 경로 역슬래시를 사용하는 경우 2개를 겹쳐 사용해야 함
```

```
> getwd()
```

```
[1] "D:/R"
```

도움말 보기

- ?명령어 또는 help(명령어)
- eg) ?print
help(print)
- 사용예제 보기
 - example(명령어)
 - eg) example(print)

패키지 사용하기

- CRAN -> Packages -> Table of Contents에서 패키지 종류 확인 가능
- 각 패키지에 대한 기능 및 사용법은 Google검색으로 확인 가능함
- 패키지 설치 예
 - `install.packages("randomForest")`
 - Rstudio에서
 - 우측하단 packages 에서 설치된 패키지 리스트 확인
 - 새롭게 설치하는 packages -> install
- 패키지 사용
 - `library(randomForest)`