

# Intro to

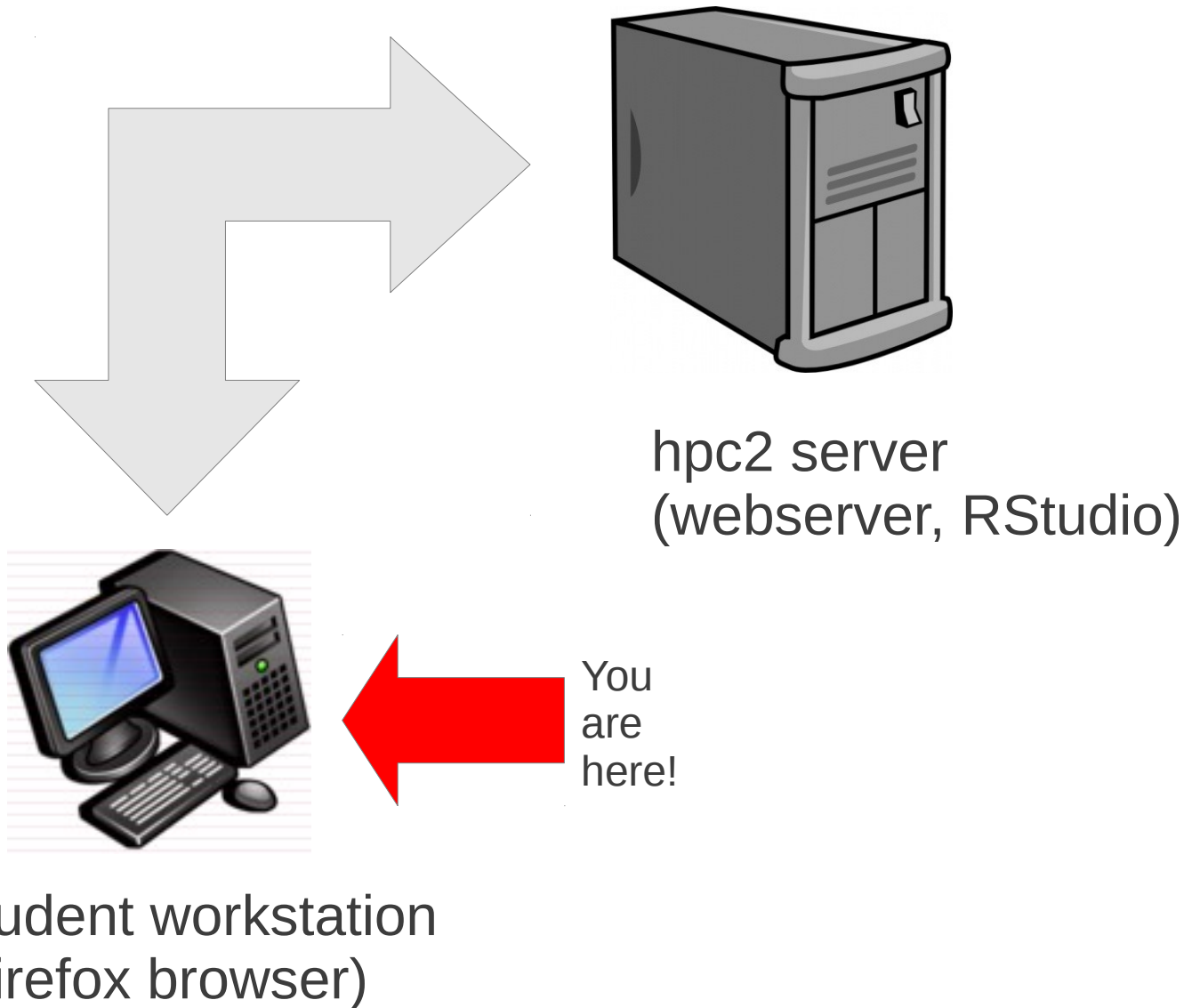
0. Setup on [hpc2.org](https://hpc2.org)

# Intro to

## 0. Setup on hpc2.org

- Register on hpc2.org
- Intro to Rstudio
- Set up with Github
- File transfer: WebDAV

# Workshop computing environment

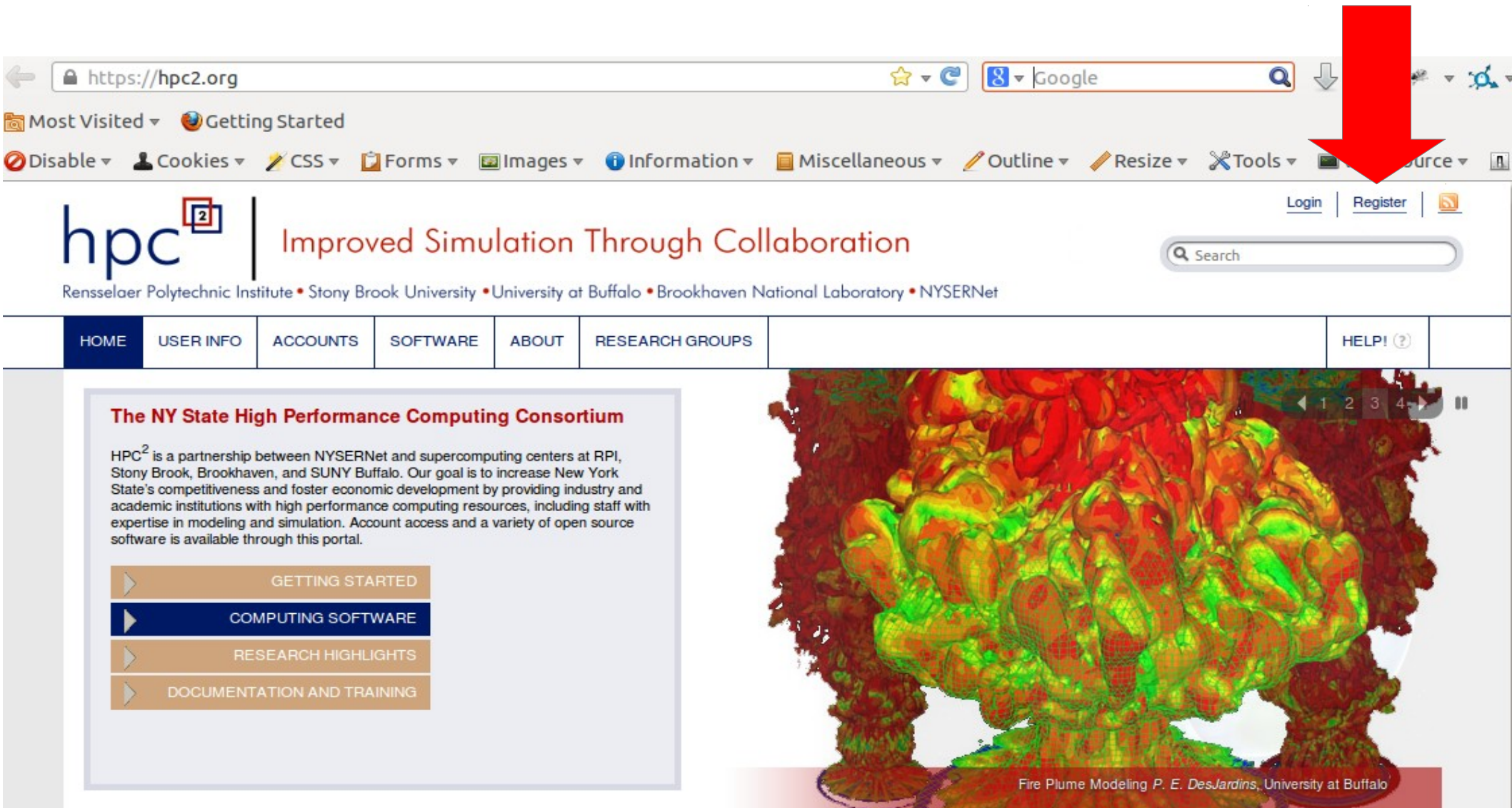


# Register on hpc2.org

You must have an email address...

1. On hpc2.org website, click Register link
2. Fill in required fields; submit
3. Follow link to Create New Account page
4. Choose username and password; specify email address; submit
5. Click link on confirmation email; sign in

# Register on hpc2.org



The screenshot shows the hpc2.org website in a web browser. A large red arrow points to the 'Register' button in the top right corner. The website features a navigation bar with links to 'Login' and 'Register'. Below the navigation bar is a search bar. The main content area includes a section titled 'The NY State High Performance Computing Consortium' with a description of the consortium and a list of links: 'GETTING STARTED', 'COMPUTING SOFTWARE', 'RESEARCH HIGHLIGHTS', and 'DOCUMENTATION AND TRAINING'. On the right side, there is a large image of a fire plume simulation with the caption 'Fire Plume Modeling P. E. DesJardins, University at Buffalo'.

https://hpc2.org

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hpc<sup>2</sup> | Improved Simulation Through Collaboration

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**The NY State High Performance Computing Consortium**

HPC<sup>2</sup> is a partnership between NYSERNet and supercomputing centers at RPI, Stony Brook, Brookhaven, and SUNY Buffalo. Our goal is to increase New York State's competitiveness and foster economic development by providing industry and academic institutions with high performance computing resources, including staff with expertise in modeling and simulation. Account access and a variety of open source software is available through this portal.

▶ GETTING STARTED

▶ **COMPUTING SOFTWARE**

▶ RESEARCH HIGHLIGHTS

▶ DOCUMENTATION AND TRAINING

Fire Plume Modeling P. E. DesJardins, University at Buffalo

# Fill in required fields and submit

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**hpc**<sup>2</sup>

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## Apply For New Account

⚠️ Registration is a two part process. The application form, which helps us assign resources for you, and registering an account on the HUB. This application form has 17 required fields, including check boxes, fill-in-the-blank and short answers about yourself and how you will use the supercomputing resources on hpc2. After it is reviewed, you will be invited to use supercomputing sites.

### User Information

Applicant Name / PI: required

Name of Institution/Business required

Address line 1: required

# Click “Register”



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## Account Application Validation

### Thank You

⚠ Thank you for applying for a HPC<sup>2</sup> account. You should receive an email within 5-10 business days, specifying the supercomputing sites you can run jobs on.

### Please continue on to

[Register](#)



If you have any questions or you don't hear back, please use the [site contact](#).

# Pick a login name and password

←

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## Create New Account

### Login Information

User Login: **required**

Combination of lowercase letters and numbers. No spaces or punctuation.

Password: **required**

Confirm Password: **required**

STRENGTH

Usernames cannot be changed. If this poses a serious problem or raises concerns please contact our [support](#).

Password may be changed any time after account creation.




# hpc2 new account created



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You are here: [Home](#) » [Register](#) » [Create New Account](#)

## Create New Account

✓ Your account has been created successfully.

A confirmation email has been sent to 'jsperhac@gmail.com'. You must click the link in that email to activate your account and resume using hpc2.

hpc2 - Members: My Account: Jeanette Sperhac - Mozilla Firefox

hpc2 - Members: My Account: ...

https://hpc2.org/members/myaccount

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Jeanette Sperhac (jsperhac)

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My Account

Getting Started

Computing Software

Browse All Software and Materials

Wish List

Support

Machine Status

Knowledge Base

Dashboard

Personalize Dashboard

My Groups

- Center for Computational Research approved
- CCR Test Group manager
- jsperhac group manager

All My Groups All Groups New Group

My Messages

- Tools, Tool renderbot(#23): Status changed from Installed to Updated 21 May 2013 10:07 AM
- Tools, Tool renderbot(#23): tool information changed 12 Apr 2013 03:07 PM
- Tools, Tool renderbot(#23): tool information changed 08 Apr 2013 03:42 PM
- Tools, Tool renderbot(#23): Status changed from Updated to Installed 25 Mar 2013 10:50 AM

All My Messages Settings

Resources

- Simulation Tools

My Tools

Recent Favorites All Tools

- Jmol: 3D viewer for chemical structures in 3D
- Large-scale Atomic/Molecular Massively Parallel Simulator
- NAMD Scalable Molecular Dynamics
- Quantum ESPRESSO
- R Studio Tool

arithmetic2 Status: updated

arith Status: published

rstudiotoool Status:

Dashboard

RStudio

hpc2 - Resources: R Studio Tool - Mozilla Firefox

hpc2 - Resources: R Studio Tool

https://hpc2.org/tools/rstudiotool

Google

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Jeanette Sperhac (jsperhac)

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You are here: Home » Tools » R Studio Tool » About

R Studio Tool

edit

By Jeanette Sperhac<sup>1</sup>, Steve Gallo<sup>2</sup>

1. SUNY at Buffalo 2. Center for Computational Research, SUNY at Buffalo

RStudio is an IDE for the R language. It provides a multipane window environment for statistical computing and graphics in R.

AboutCitations

Launch Tool

Version 1.0 - published on 12 Feb 2013

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12 Feb 2013

Abstract

The R Studio Tool is a deployment of the RStudio IDE on the hpc2 hub. It provides a multipane window environment for statistical computing and graphics in R.

R Studio provides syntax highlighting, code completion, and smart indentation; ability to execute R code from the source editor; ability to easily manage multiple working directories using projects; and ability to quickly navigate code using type-ahead search.



## Improved Simulation Through Collaboration

Jeanette Sperhac (jsperhac)

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Search

[HOME](#)[USER INFO](#)[ACCOUNTS](#)[SOFTWARE](#)[ABOUT](#)[RESEARCH GR](#)[HELP! \(?\)](#)You are here: [Home](#) » [resources](#) » [Tools](#) » [R Studio Tool](#) » [Session: 1123 "R Studio Tool"](#)Rstudio session:  
Terminate  
Suspend

R Studio Tool

X Terminate

➡ Keep for later

File Edit Code View Plots Session Project Build Tools Help

Go to file/function

Project: (None)

plot-extravaganza-mtcars.R x

ggplot2-examp &gt;&gt;

Source

```
1 # plot examples from statmethods.net
2 # using mtcars dataset
3 # 3 May 2013
4 # JMS
5
6
7 # pch controls point selection
8 # col controls point color
9 plot(mtcars$wt, mtcars$mpg, xlab="Veh
10      ylab="Vehicle MPG, miles/gallon"
11      pch=8, col="darkblue")
12 abline(lm(mtcars$mpg~mtcars$wt), col=
13 title("Regression of Vehicle MPG on W
14
15 # ----- Histograms -----
16
```

1:1 (Top Level) ↓

R Script ↓

Workspace

History

Import Dataset

Files

Plots

Packages

Help

New Folder

Delete

Rename

More

Home

Name

Size

Modified

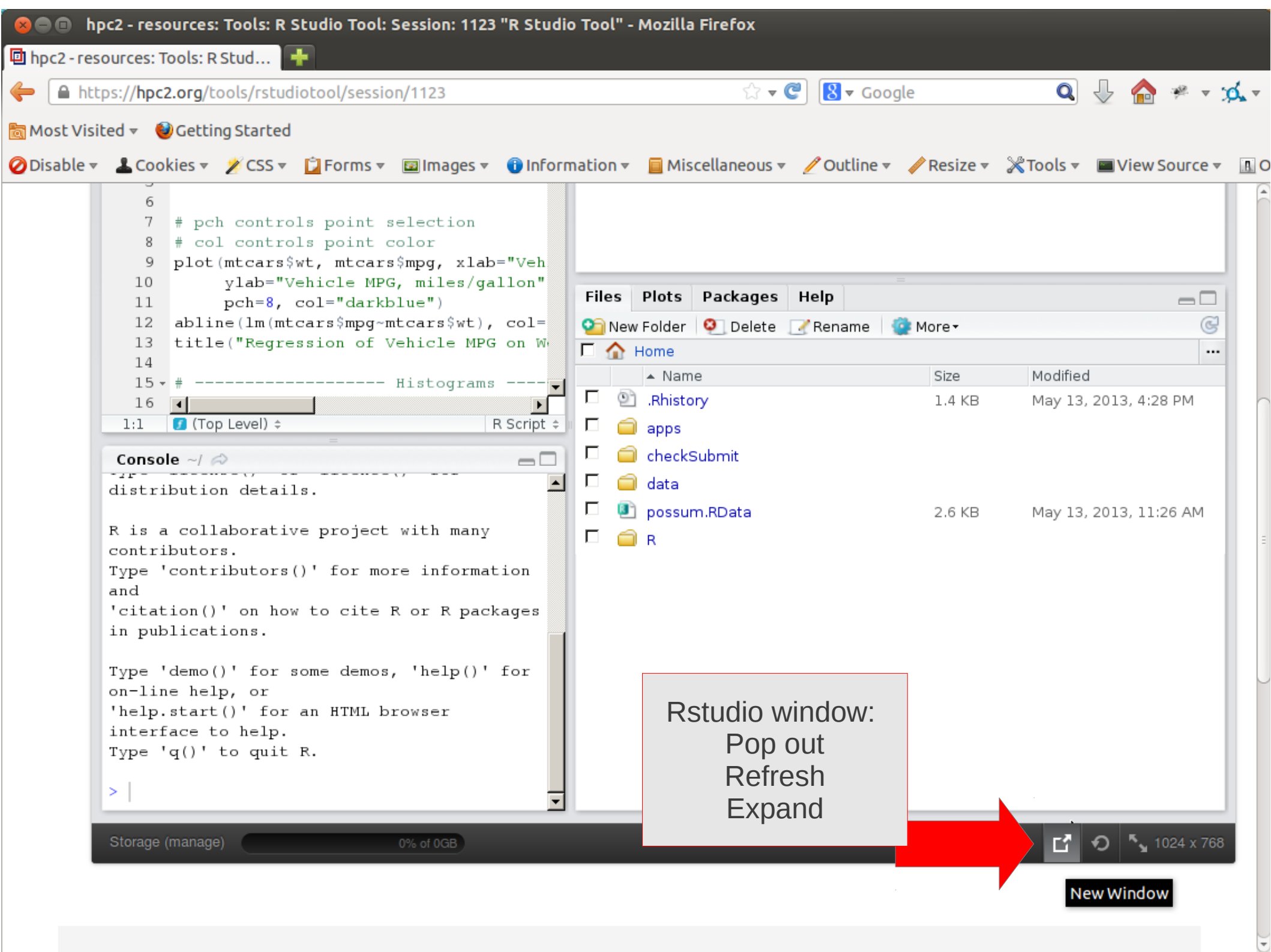
.Rhistory

1.4 KB

May 13, 2013, 4:28 PM

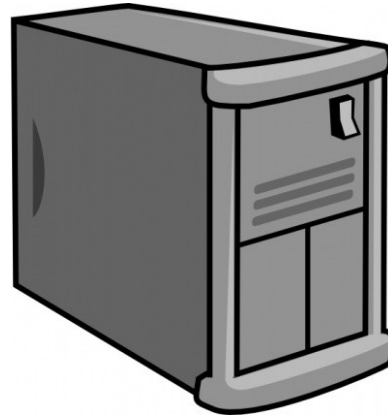
apps

checkSubmit





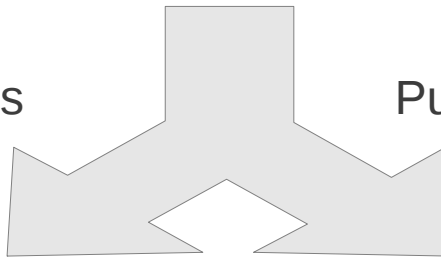
# GitHub



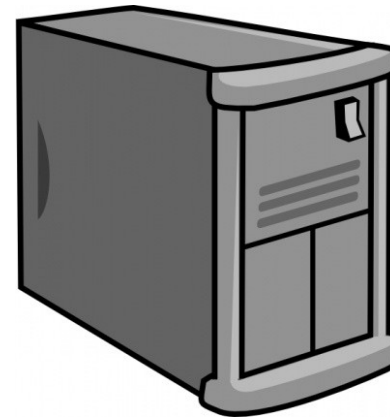
GitHub server

View files

Pull files and data

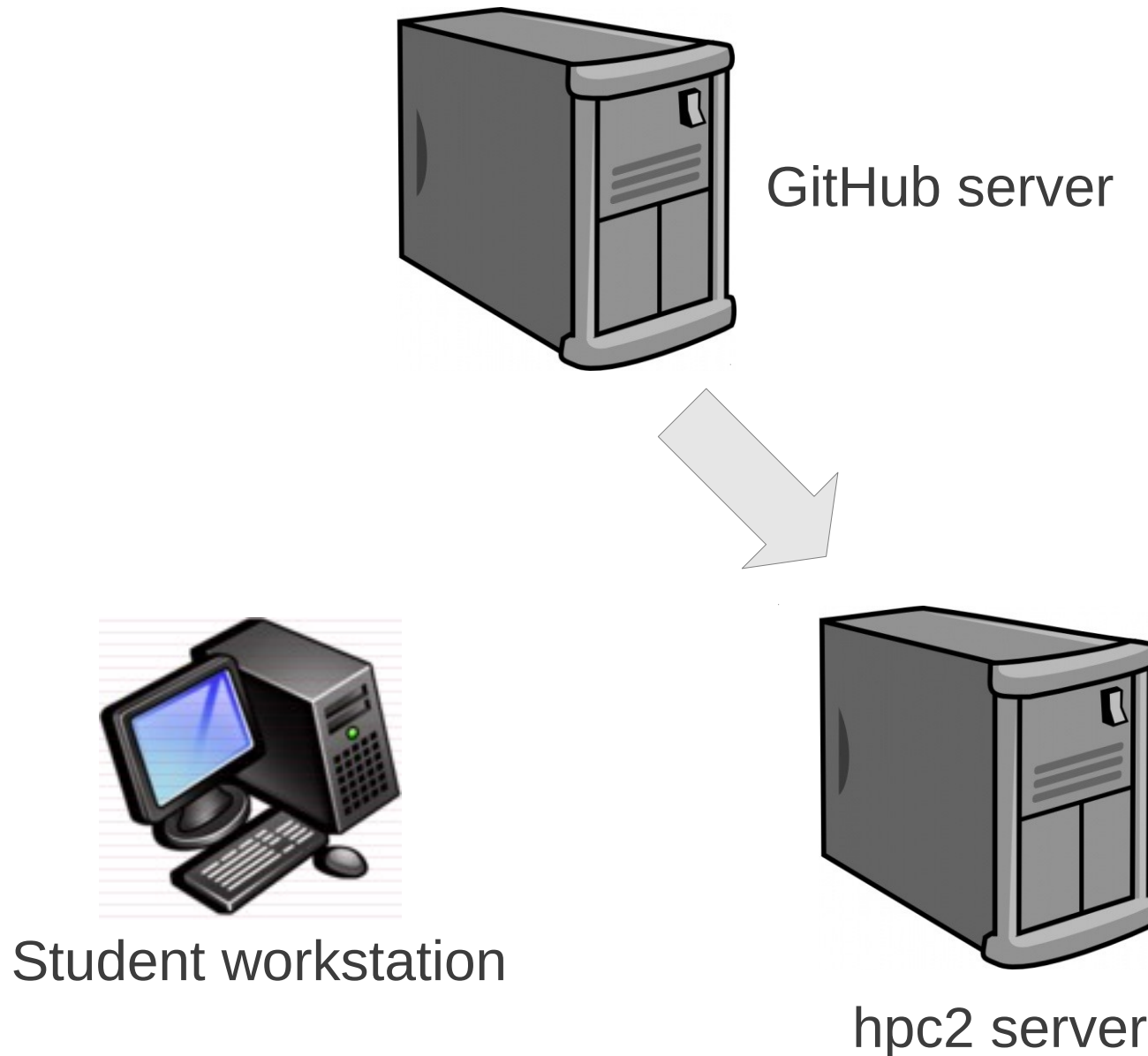


Student workstation

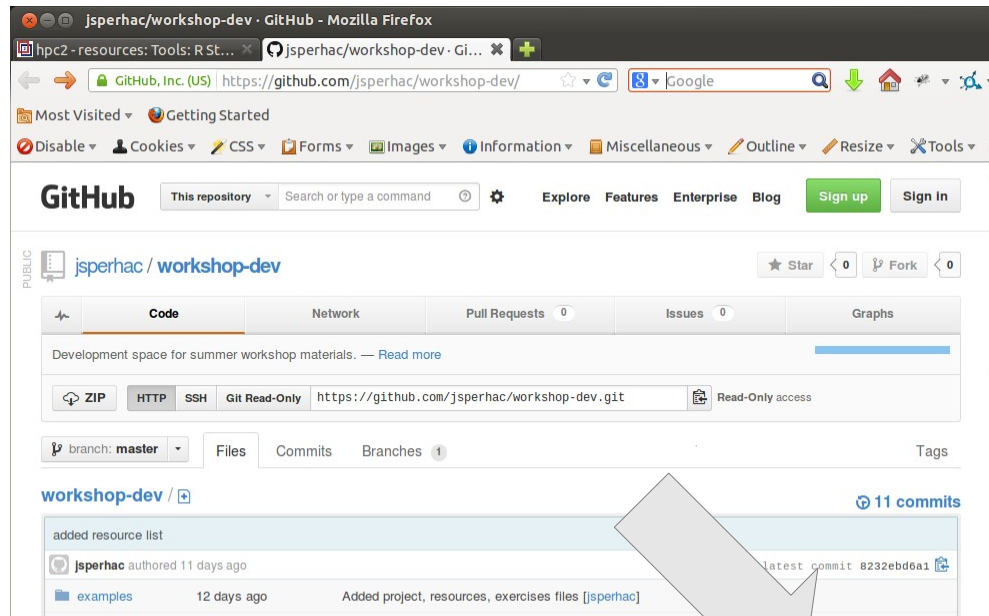


hpc2 server

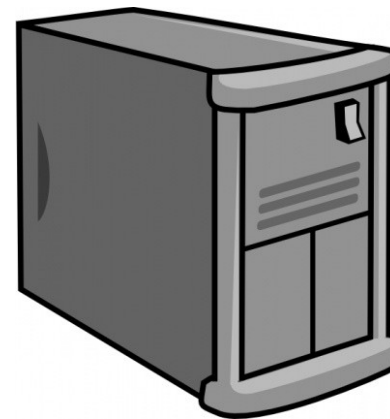
# Workshop Files and Data: GitHub



# GitHub



Student workstation



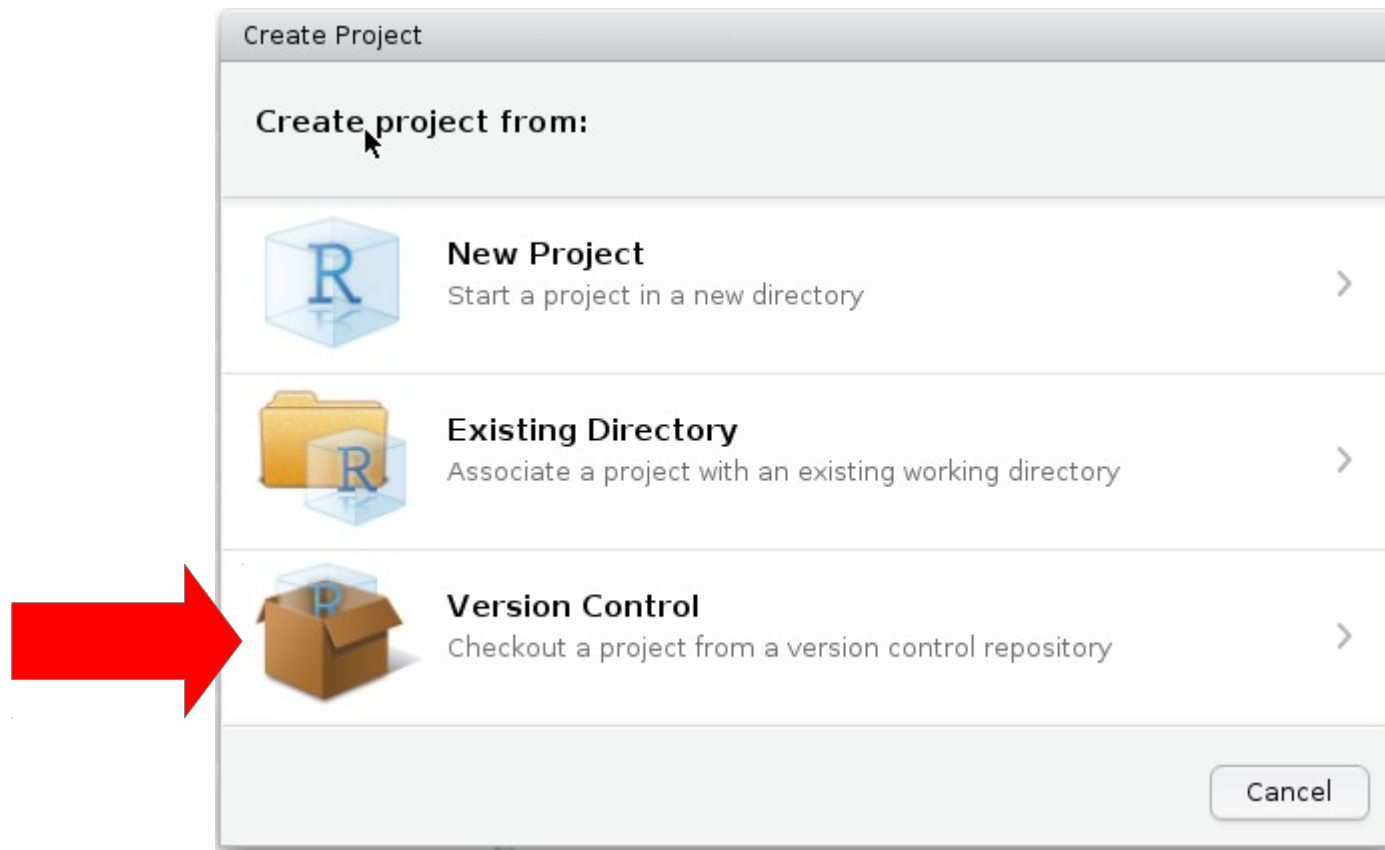
hpc2 server



# Create GitHub project in RStudio

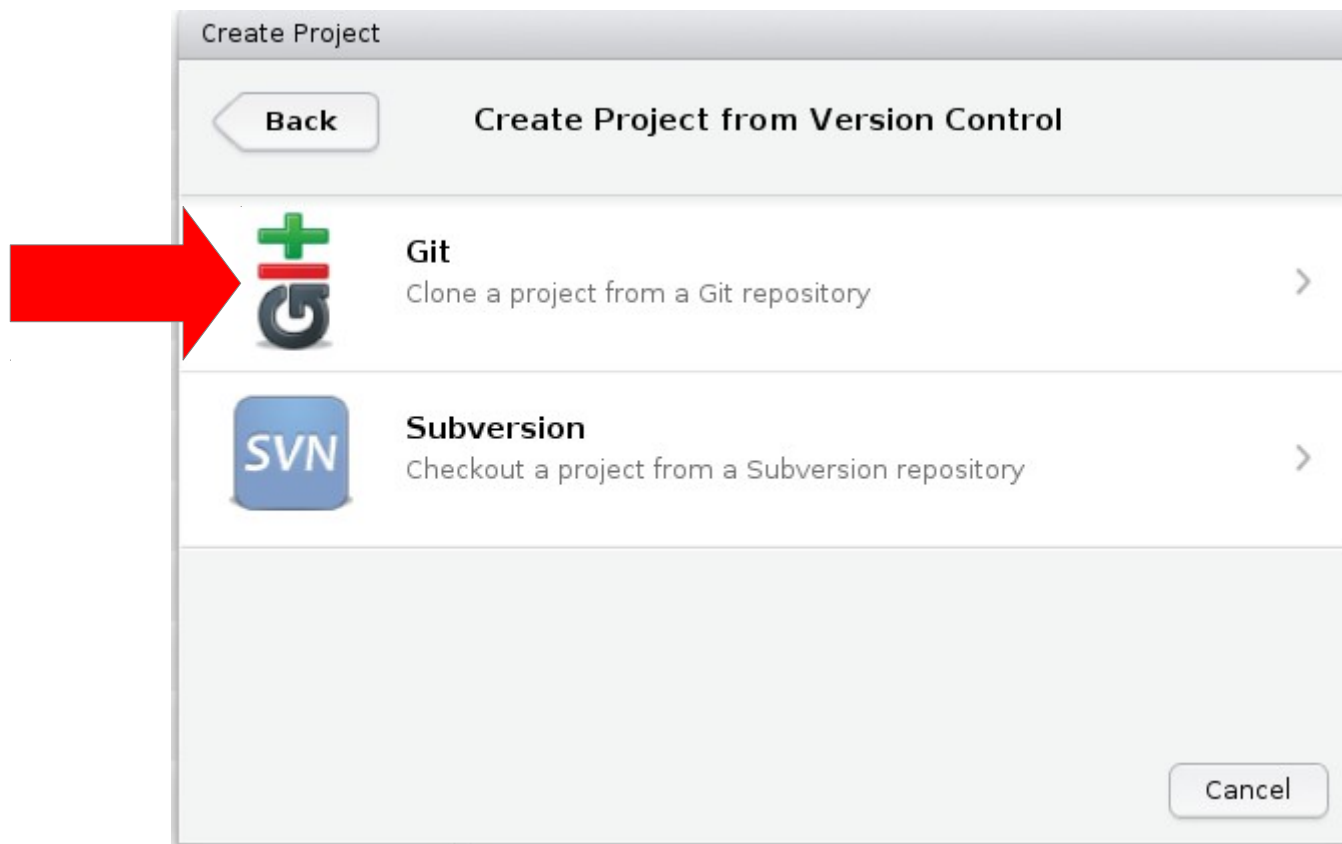
1. In RStudio:

- Select Project: Create Project
- Select Version Control



# Create GitHub project in RStudio

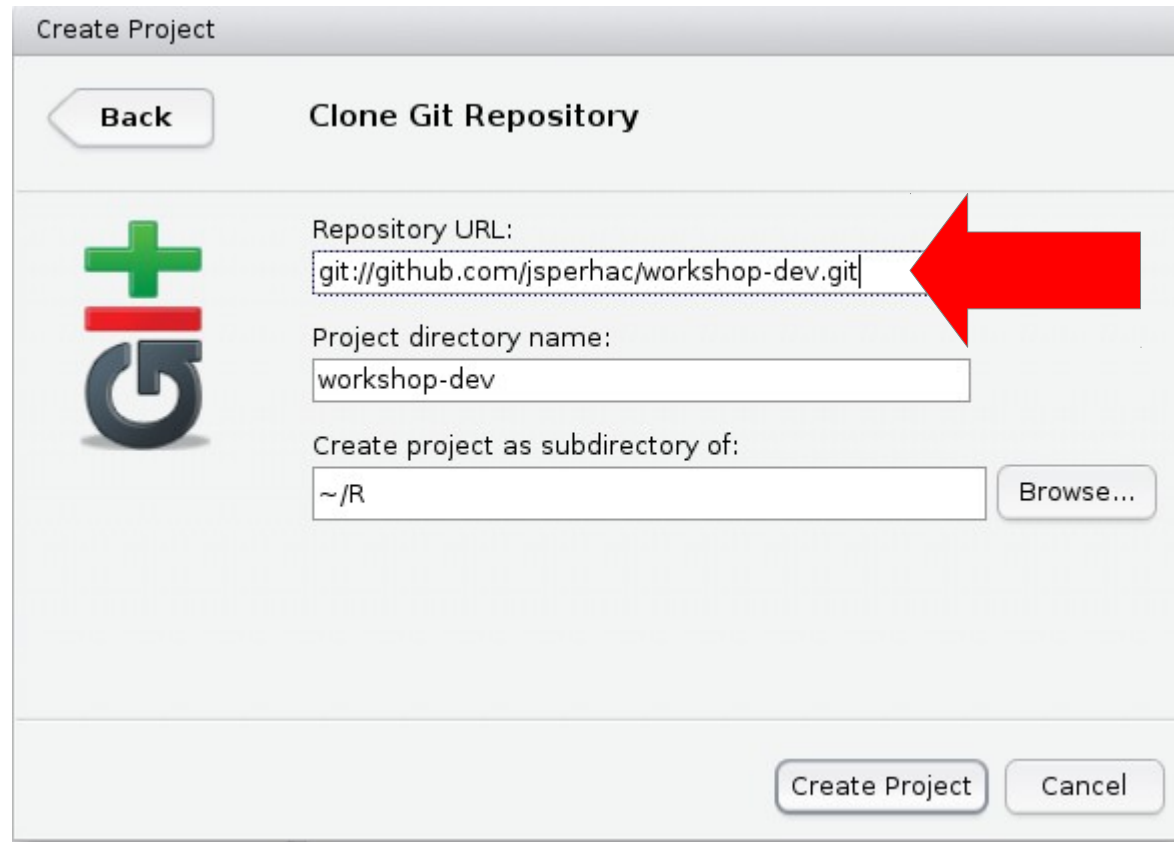
2. In RStudio:  
Next, select Git



# Create GitHub project in RStudio

3. In RStudio:

Type the Repository URL as shown



The image shows the 'Create Project' dialog box in RStudio, specifically the 'Clone Git Repository' tab. On the left is a green plus sign over a dark gray 'G' logo. The dialog has a 'Back' button in the top left. The main area contains three input fields: 'Repository URL:' with the text 'git://github.com/jsperhac/workshop-dev.git', 'Project directory name:' with the text 'workshop-dev', and 'Create project as subdirectory of:' with the text '~/R'. A red arrow points to the 'Repository URL' field. To the right of the third field is a 'Browse...' button. At the bottom right are 'Create Project' and 'Cancel' buttons.

Create Project

Back Clone Git Repository

Repository URL:  
git://github.com/jsperhac/workshop-dev.git

Project directory name:  
workshop-dev

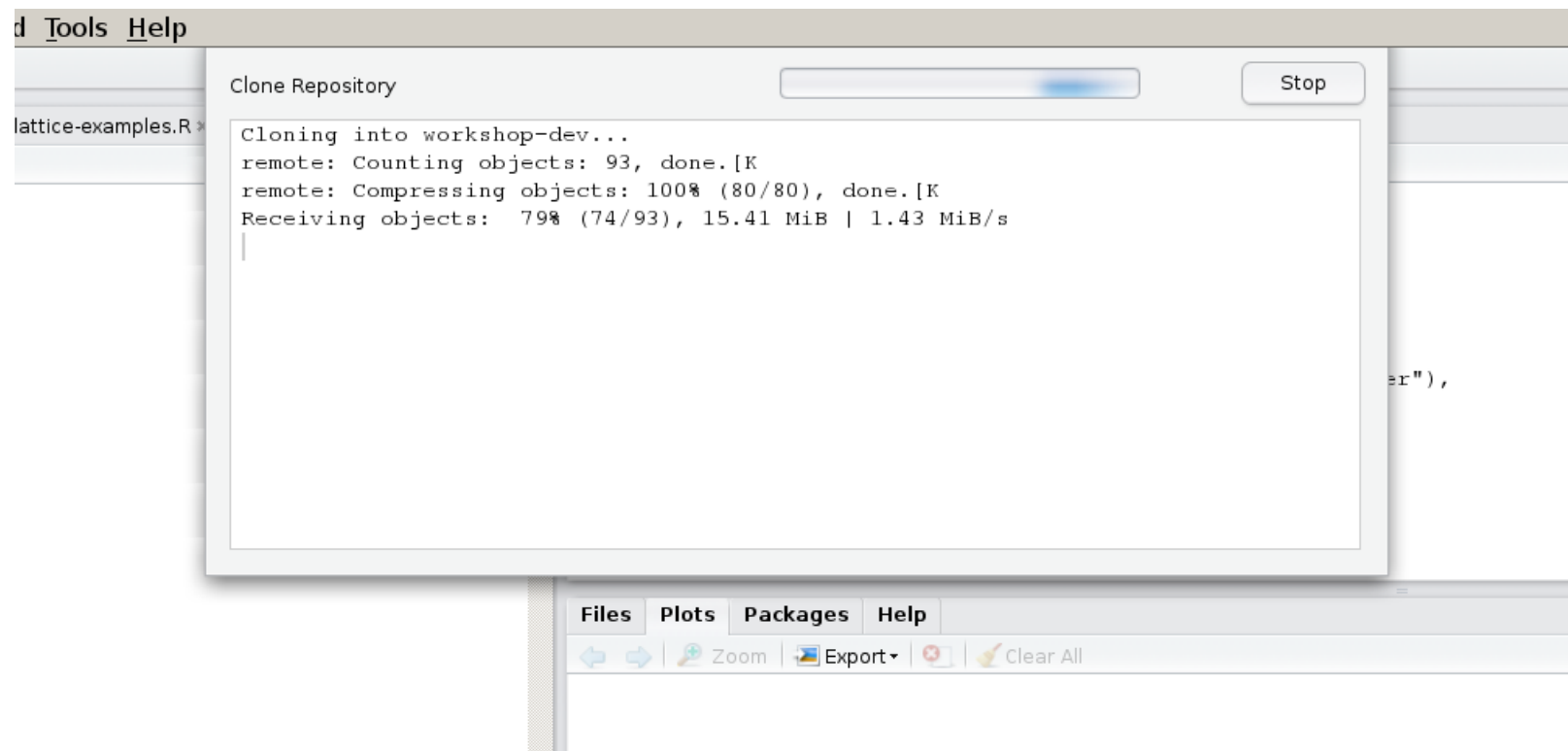
Create project as subdirectory of:  
~/R Browse...

Create Project Cancel

git://github.com/jsperhac/workshop-dev.git

# Create GitHub project in RStudio

4. RStudio copies the files to your home directory on hpc2



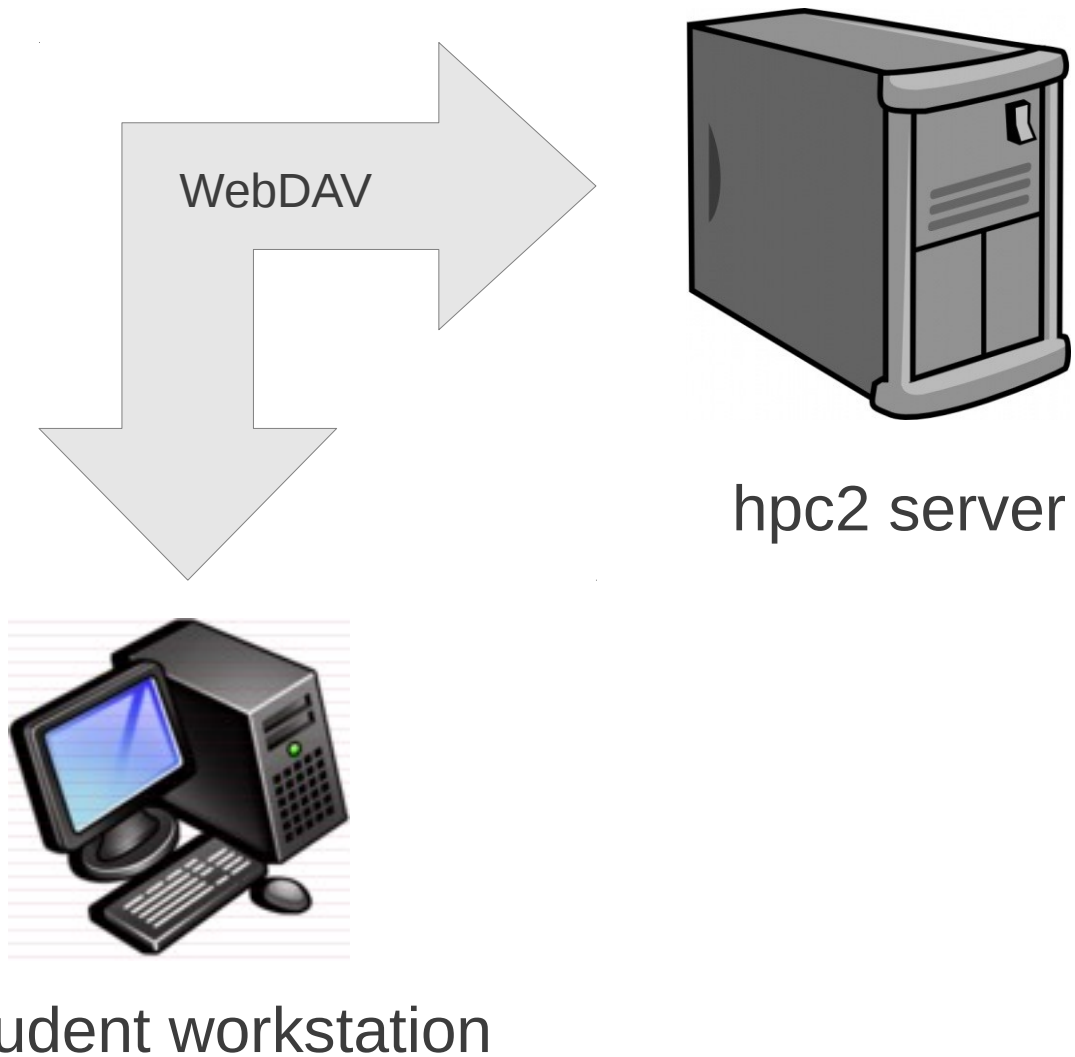
# Rstudio: load your dataset

- Select Import Dataset: From Text File
- Select a .csv file

# GitHub project in RStudio

- Selecting the project sets the working directory
- Your RStudio project contains directories:
  - examples
  - exercises
  - project
  - resources

# File transfer

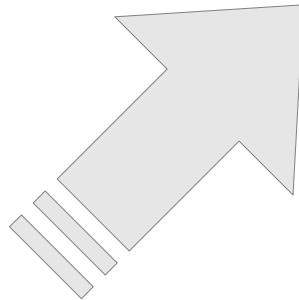


# File transfer: WebDAV

- Home folder



Student workstation



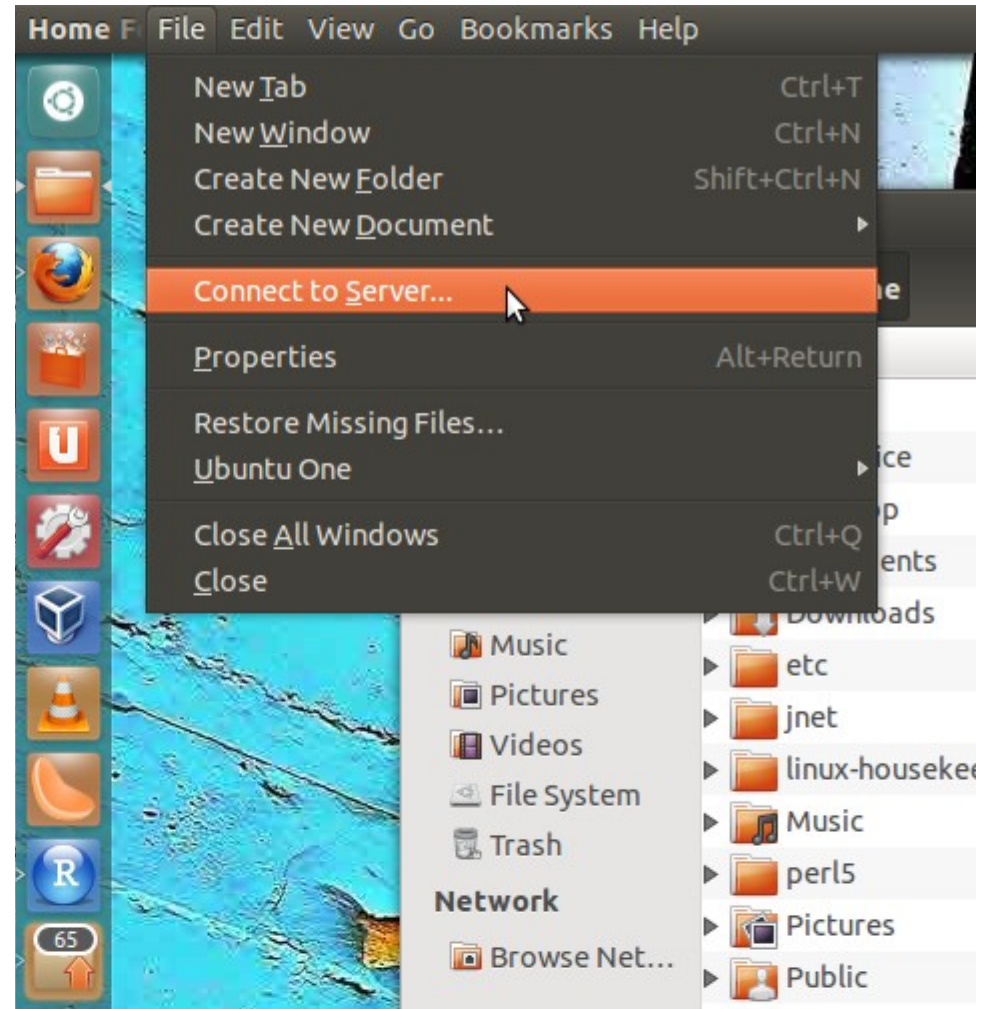
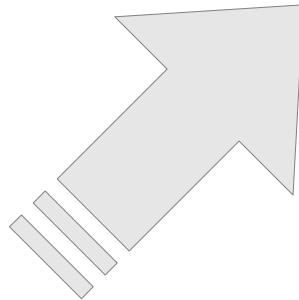


# File transfer: WebDAV

File: Connect to Server...



Student workstation

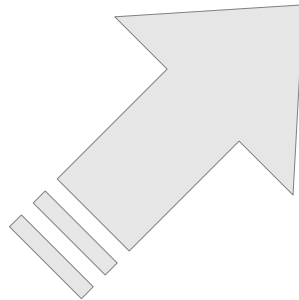


# File transfer: WebDAV

Use your hpc2 user credentials



Student workstation



**Connect to Server**

**Server Details**

Server:  Port:

Type:

Folder:

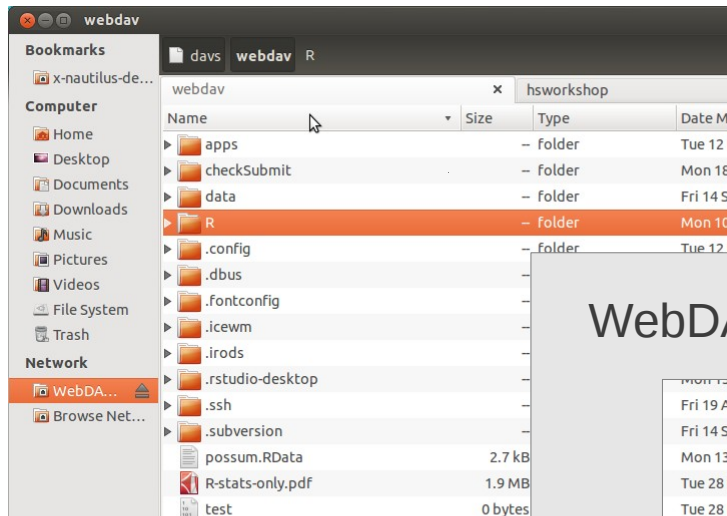
**User Details**

User name:

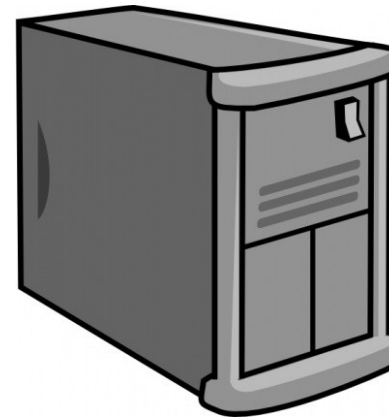
Password:

☐ Remember this password

# File transfer



WebDAV



hpc2 server



Student workstation