

The ConGen Linux Server and its RStudio Interface

For Congen 2026 (on-line) we launch a Linux AWS server with RStudio as its interface, reachable through your web browser, at <https://handson.congen1.com>.

Use guidelines

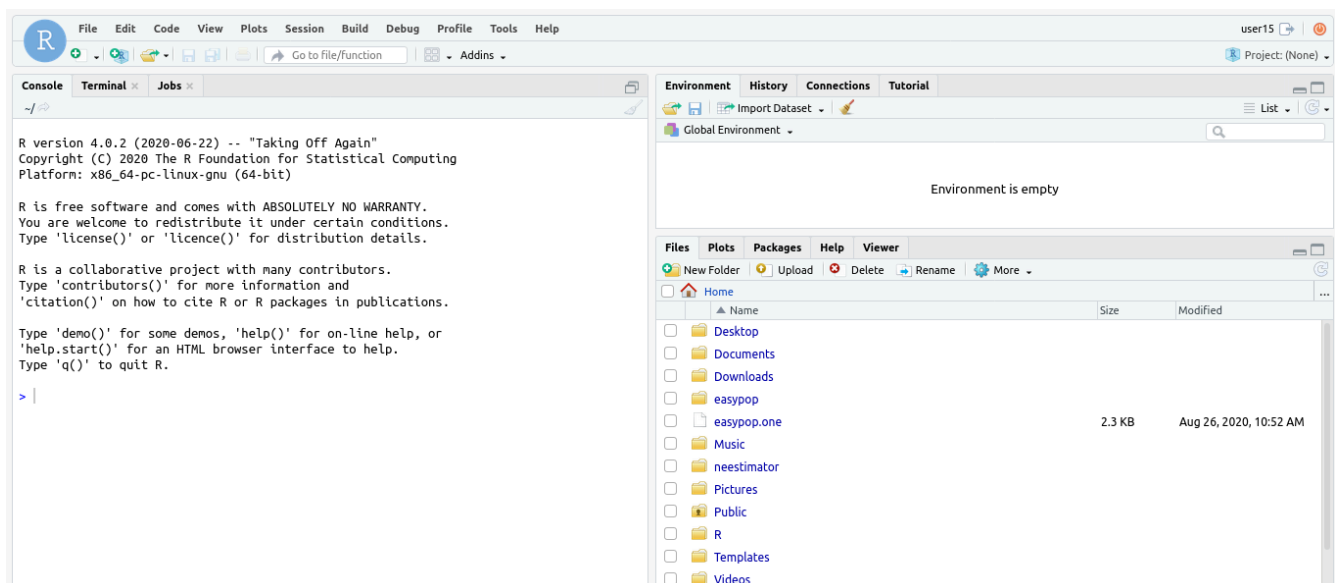
The server is intended solely for ConGen instructors and students, and only for use related to the hands-on exercises and materials. It is configured for the small datasets the instructors provide for performing the exercises. As such, the server is not amenable to users uploading and analyzing large datasets, which can fill up the home directory volume and otherwise consume server resources, rendering the server unusable by others. Beyond the provided instructor materials, please do not upload any datasets to the server larger than 1 or 2 GB.

The server is available during the hands-on sessions and extended hours to allow for practice or other activity related to the exercises. You can see the server availability schedule at www.it.congen1.com.

We will send students and instructors user names and passwords for access to the RStudio interface, in which you can run R, execute programs in the Linux environment from a bash terminal, create and edit text files, copy files between your local computer and the AWS server.

Connecting the first time

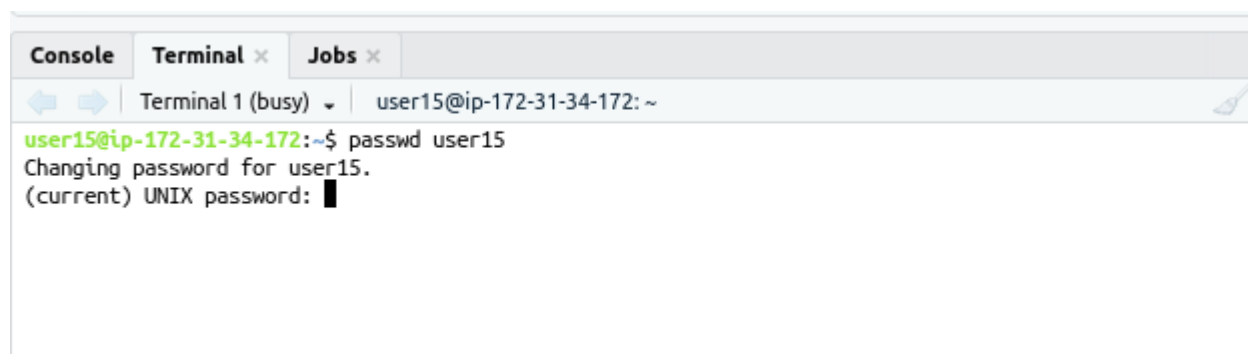
To enable you to connect to the ConGen server, navigate to <https://handson.congen1.com> in your web browser to reach the RStudio interface:



Changing your password

On your first connection to the RStudio Server, you can change your password to one that is more personal and easy to remember. After you navigate to the URL in your web browser, you should see the RStudio login screen. After logging in with the user name and the password we've provided, you'll see the RStudio interface

Please click on the "Terminal" tab on the left-hand pane, to use the Linux bash shell, and use the "passwd" command (see image below), and follow the prompts to change the default password to one of your choice. It is recommended to use at least 8 characters, and a mix of numbers and letters. Mixing upper and lower case letters also increases security. After issuing the "passwd" command followed by your username, you will be prompted to enter the current password (the password we sent you), and then you'll be prompted to enter, and then re-enter, your new password. Note, for those new to the Linux terminal, that, for the passwd command, the terminal prompt does not reflect your input as you type your current, then new, passwords. It is, however, registering your keystrokes, so, at each prompt simply type the appropriate password, then hit the Enter key..

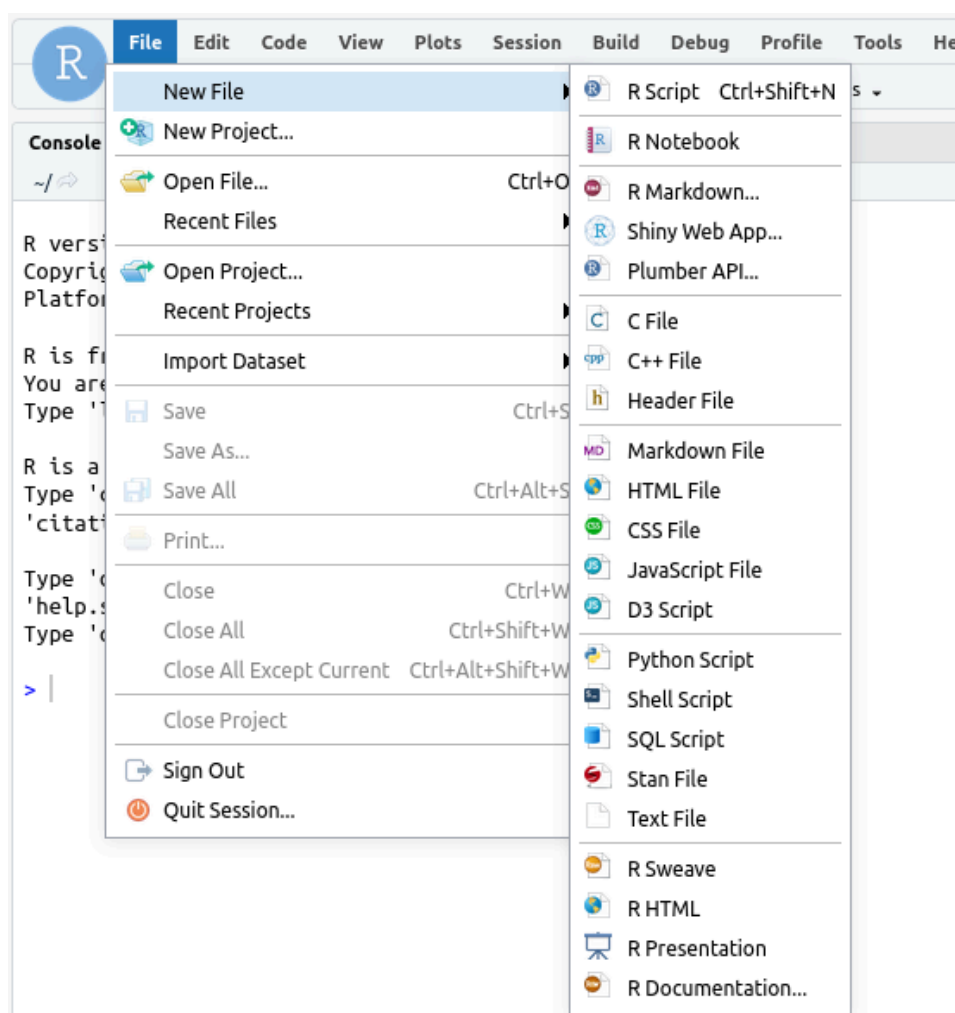


```
Console Terminal x Jobs x
Terminal 1 (busy) user15@ip-172-31-34-172: ~
user15@ip-172-31-34-172:~$ passwd user15
Changing password for user15.
(current) UNIX password: 
```

If you lose or forget your password contact ConGen staff, and we'll reset it for you.

RStudio Server Basic Features

To review Rstudio's basic features (see the image above, of the RStudio server interface), note that the left pane has tabs for a "Console," which is the R console, and a window to show plots (lower right pane, under the "Plots" tab). The left pane's "Terminal," tab gives you a standard Linux bash terminal, in which you will execute many of the programs for the ConGen hands-on exercises. In the "Files" tab, by default you'll see files and folders inside your /home/ directory, one of which is a folder named "instructor_materials." Clicking on this gives you (read-only) access to the instructor materials, including data needed for hands-on exercises. The interface also has a text file editor that offers customized highlighting and autocompletion for many file types (see image below). You can also load a suitable file into the text editor simply by clicking on a file shown in the list of files/directories in the "Files" pane.



Using RStudio To Upload and Download Files

The RStudio interface lets you upload files from your computer to the server, and download from the server to your computer:

- i. **Uploading Files.** The lower right hand pane provides a “Files” tab. To upload files from your computer to the AWS server, after clicking on the “Files” tab, click on the "Upload" button in the row of buttons at the top of the Files pane. You'll then see a dialog window with a box labeled "Target directory." Click “Browse,” and you can select the destination (inside your home directory only) where you want to put your files on the server, and click "Choose." Next, click "Browse" below the "File to upload", and you should see your own computer's directories. You can browse your own directories and select a file to upload, and click "Open."

Notes: RStudio allows uploading only one file at a time, but RStudio documentation suggests zipping up multiple files into a single zip archive and uploading it. In this case RStudio automatically unzips the files into the target directory.

Warning: if you want to upload files totaling over 2 GB, please contact ConGen support staff, as we will be managing disk space, and because RStudio reportedly has had an issue in which uploads over several GB can cause it to lock you out of your session.

- ii. **Downloading Files.**

To download files from the AWS server to your own computer, with the “Files” tab selected, first click on the box next to the file or directory you want to download. Next, click on “More,” then “Export” (see image below), and follow your browser's prompt to download the file or (automatically zipped) directory.

