

Pre Workshop Setup

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Pre-tutorial Setup

You will need to complete the following steps *before* our live coding sessions. We suggest that you do so at least the night before (installing and updating can take a while, you don't want to miss out!) and come early if you need help getting anything setup on your personal computer.

Install R

Please check your version of R. To use the tools for this tutorial you will need R 3.4.0+

How to check your version in R or RStudio if you already have it:

```
> version

platform      _
arch          x86_64-apple-darwin15.6.0
arch          x86_64
os            darwin15.6.0
system        x86_64, darwin15.6.0
status
major         3
minor         5.1
year          2018
month         07
day           02
svn rev       74947
language      R
version.string R version 3.5.1 (2018-07-02)
nickname      Feather Spray
```

If you don't already have R or need to update it do so here.

Windows R/RStudio Setup

After you have downloaded R, run the .exe file that was just downloaded Go to the RStudio Download page. Under Installers select RStudio X.XX.XXX - e.g. Windows Vista/7/8/10 Double click the file to install it Once R and RStudio are installed, click to open RStudio. If you don't get any error messages you are set. If there is an error message, you will need to re-install the program.

Mac R/RStudio Setup

After you have downloaded R, double click on the file that was downloaded and R will install Go to the RStudio Download page Under Installers select RStudio 1.2.1135 - Mac OS X XX.X (64-bit) to download it. Once it's downloaded, double click the file to install it. Once R and RStudio are installed, click to open RStudio. If you don't get any error messages you are set. If there is an error message, you will need to re-install the program.

Linux R/RStudio Setup

R is available through most Linux package managers. You can download the binary files for your distribution from CRAN. Or you can use your package manager. e.g. for Debian/Ubuntu

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

and for Fedora

```
run sudo yum install R
```

To install RStudio, go to the RStudio Download page Under Installers select the version for your distribution. Once it's downloaded, double click the file to install it Once R and RStudio are installed, click to open RStudio. If you don't get any error messages you are set. If there is an error message, you will need to re-install the program.

Install packages for this tutorial

You can run the following script to make sure all the required packages are properly installed on your laptop.

```
# install required packages
install.packages(c(
  'data.table',
  'phenocamapi',
  'plotly',
  'dplyr',
  'phenocamr',
  'phenocamapi',
  'rmarkdown'
))
```

You may have to type 'Y' a few times if there are dependencies that you don't have which need to be installed.

You're good to go!

Let's go ahead and launch our RMarkdown Notebook for tomorrow:

In your Console paste the following code:

```
file.edit('Live Coding Data Fusion.Rmd')
```