

Introduction to R and RStudio Demos

RStudio: Organize Working Directory

Add **data_raw** folder using command:

```
dir.create("data_raw")
```

RStudio: Check Working Directory

Command to get new working directory path:

```
getwd()
```

Console Pane

Demo of how to cancel incomplete command in console pane:

```
sin(1) (press enter)
```

```
Sin(1) (press enter, then press ESC key)
```

Script Editor

Enter script in source pane:

```
sin(1) # trigonometry function
```

```
cos(1) # trigonometry function
```

```
log(1) # natural logarithm
```

Creating Objects in R and Assigning Value

Enter in console pane:

```
weight_kg <- 55
```

Assignment

To display object value:

```
(weight_kg<-55)
```

```
weight_kg
```

Doing arithmetic with an object:

```
2.2*weight_kg
```

Assigning a new value to object:

```
weight_kg<-57.5
```

```
2.2*weight_kg
```

```
weight_lb <- 2.2 * weight_kg
```

```
weight_kg<-100
```

```
weight_lb
```

Comments

Enter script in source pane:

```
sum(1,2,3) #sum of numbers
```

Functions and their Arguments (1)

Example of a function, enter in console:

```
a=4
```

```
b<-sqrt(a)
```

```
b
```

Functions and their Arguments (2)

A function that can take multiple arguments, round():

```
round(3.14159)
```

To find help documentation for a function, enter in console:

```
?round
```

Enter in console:

```
round(3.14159, digits = 2)
```

RStudio Help Interface

If you need help with a specific function, let's say barplot(), you can type in the console:

```
?barplot
```

If you want to find a function to do a particular task, type in the console:

```
??plot
```

Getting Help from the R User Community (1)

Save R object to file:

```
saveRDS(weight_kg, file=~[file path])
```

With example file path:

```
saveRDS(weight_kg, file=~R/Test/Test/weight_kg.rds")
```

Enter in console to get session info:

```
sessionInfo()
```