Introduction to

and

Sam Albers
sam.albers@gov.bc.ca
@big_bag_sam

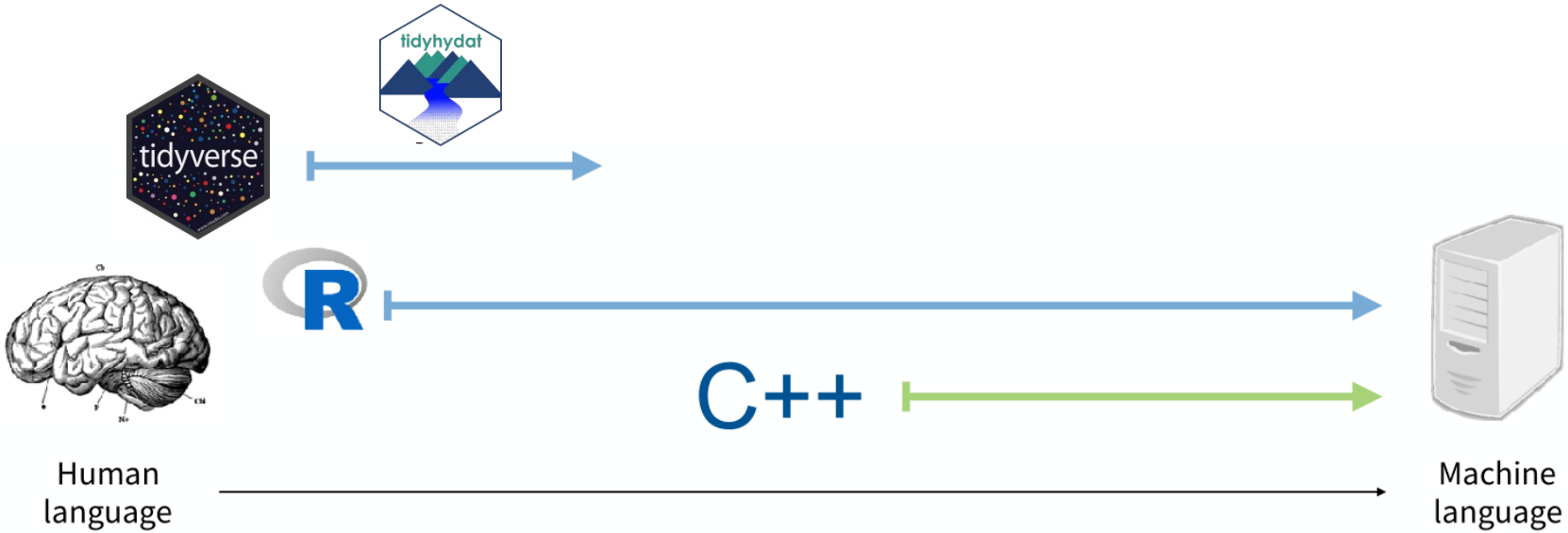
Introduction

Your turn

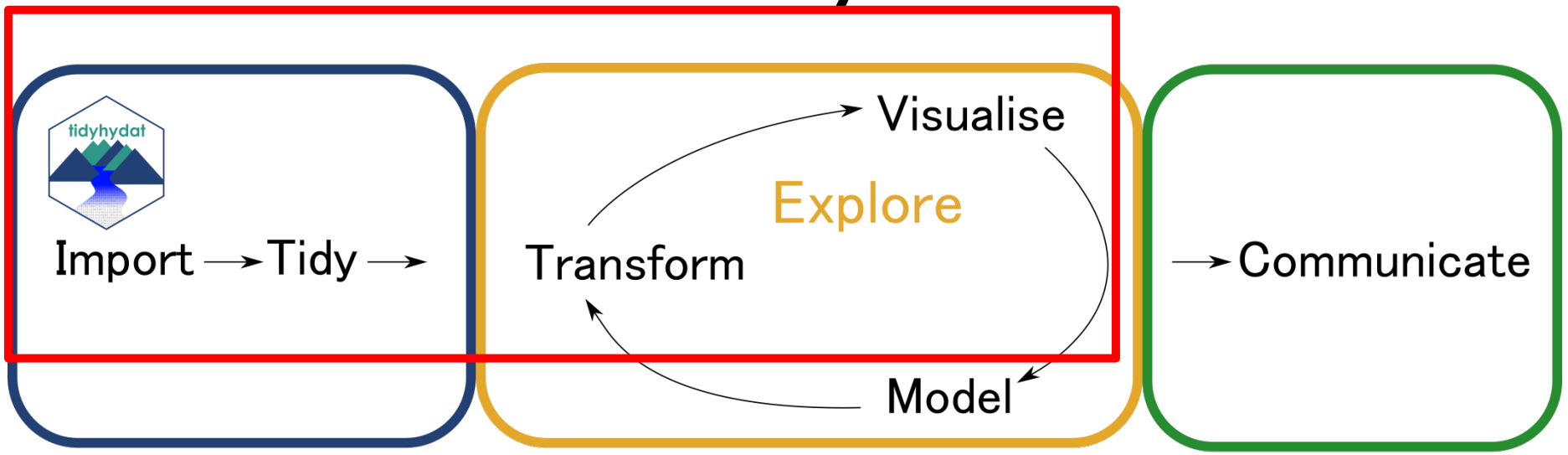
Introduce yourself to your neighbour

- Who are you?
- Why are you here?
- What is your experience with R?

R – A programming language for data



The Data Analysis Process



Adapted from Wickham and Grolemund 2017

Focus less time of coding and more time on data analysis

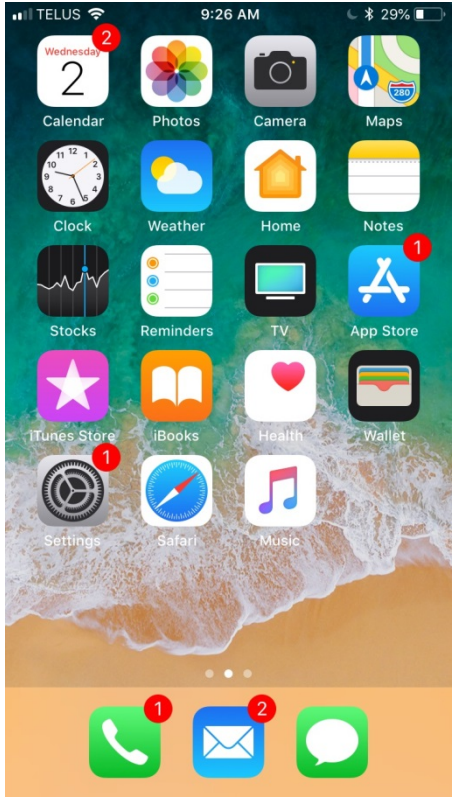
Why use R?

- Efficient
- Reproducible
- Scalable

Base R

Packages

RStudio



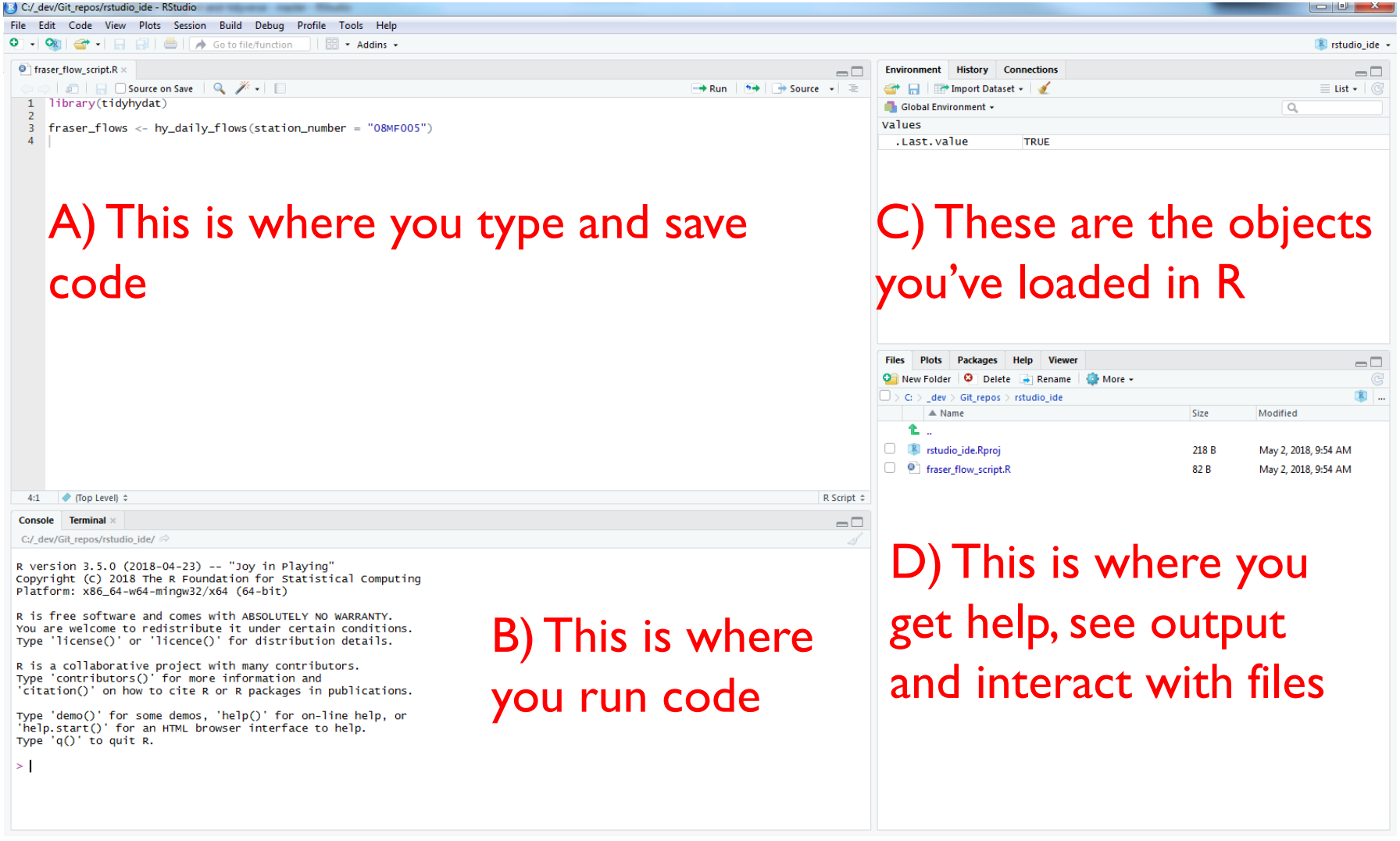
Anatomy of an R function

```
fraser <- hy_daily_flows(station_number = "08MF005")
```




Object Function Argument Value

RStudio

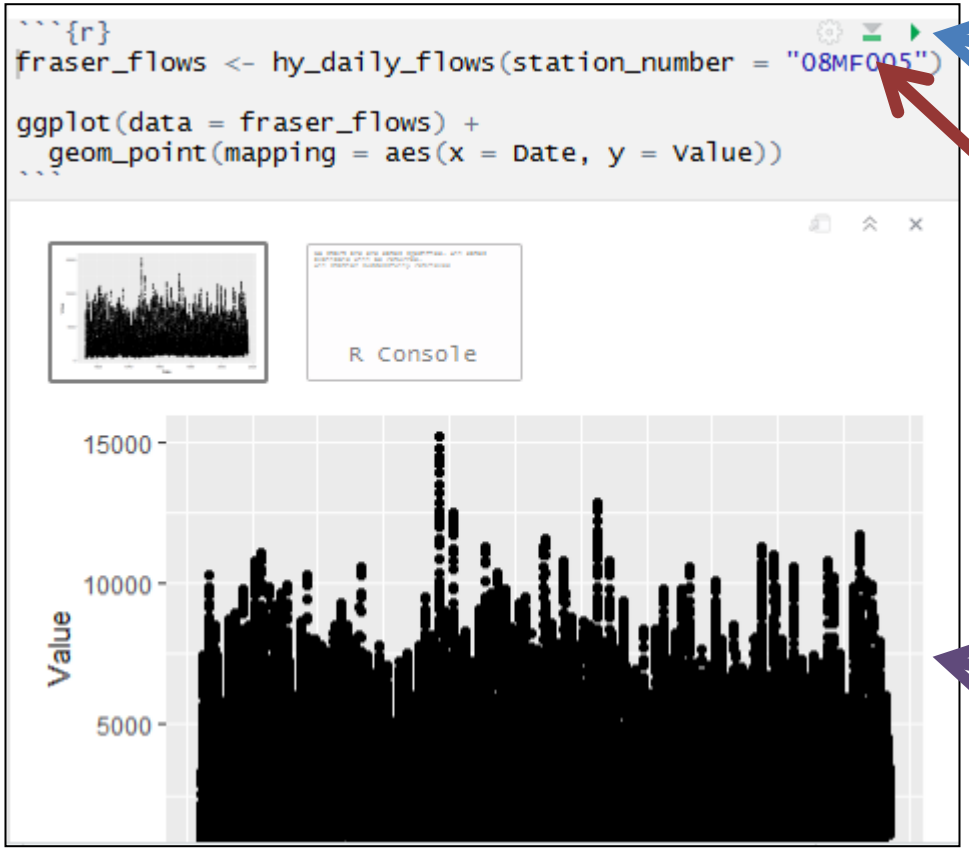

C:/_dev/Git_repos/rstudio_ide - RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Addins
rstudio_ide
fraser_flow_script.R
Source on Save
Run
Source
1 library(tidyhydat)
2
3 fraser_flows <- hy_daily_flows(station_number = "08MF005")
4
A) This is where you type and save code
4:1
(Top Level)
R Script
Environment History Connections
Import Dataset
List
Global Environment
Values
.Last.value TRUE
C) These are the objects you've loaded in R
Files Plots Packages Help Viewer
New Folder Delete Rename More
C: _dev Git_repos rstudio_ide
Name Size Modified
rstudio_ide.Rproj 218 B May 2, 2018, 9:54 AM
fraser_flow_script.R 82 B May 2, 2018, 9:54 AM
D) This is where you get help, see output and interact with files
Console Terminal
C:/_dev/Git_repos/rstudio_ide/
R version 3.5.0 (2018-04-23) -- "Joy in Playing"
Copyright (C) 2018 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)
R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.
>
B) This is where you run code

Your turn

- Open the file intro-to-tidyhydat-and-tidyverse.Rproj
- Open 00-Getting-started.Rmd and start doing analysis!

A quick word on Notebooks

- Integrates:
  - Code
  - Text
  - Output



Click to run code in chunk

Click to run all code chunks above

Code output