Bellevue University

M6 – Graphing

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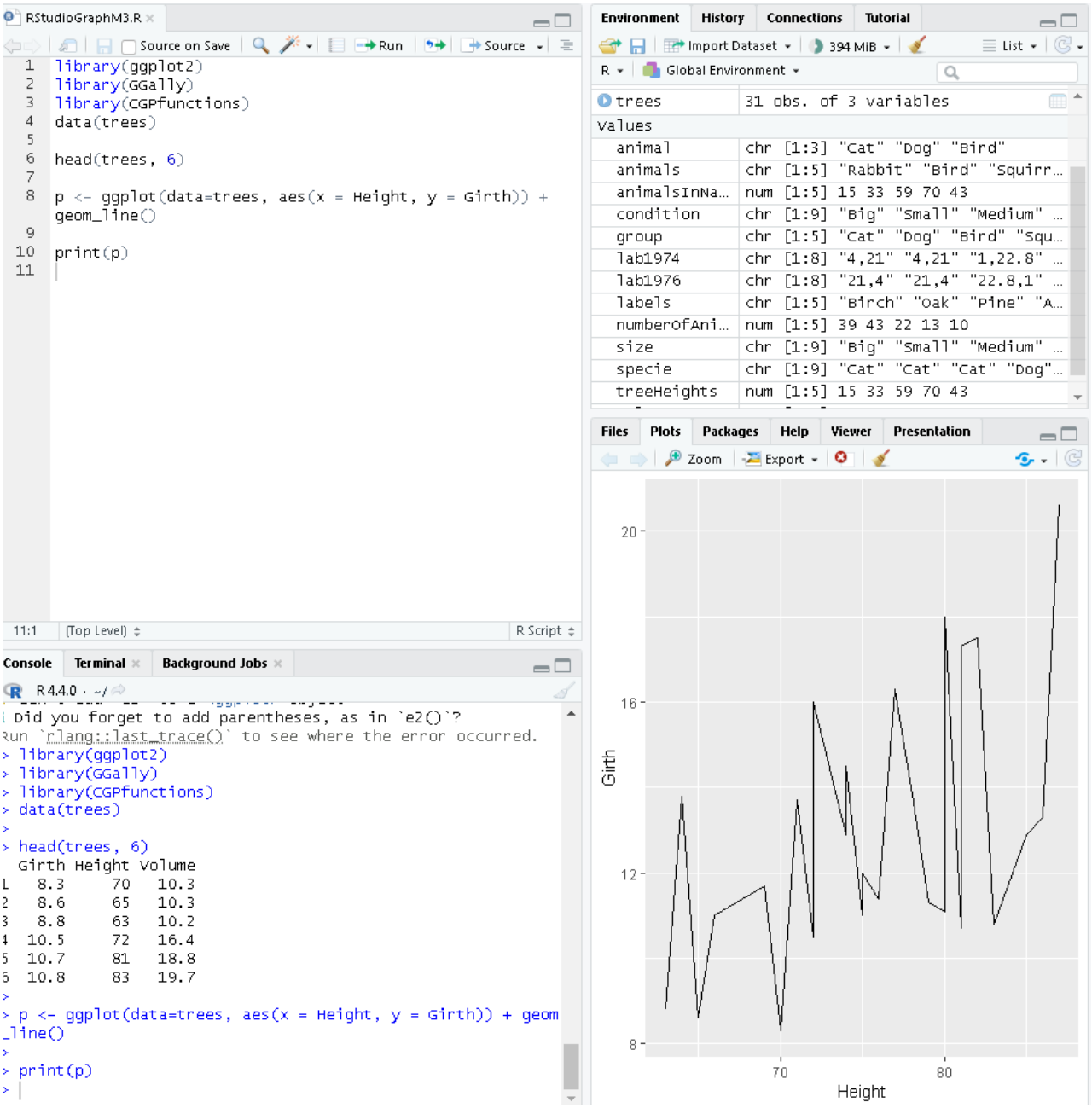
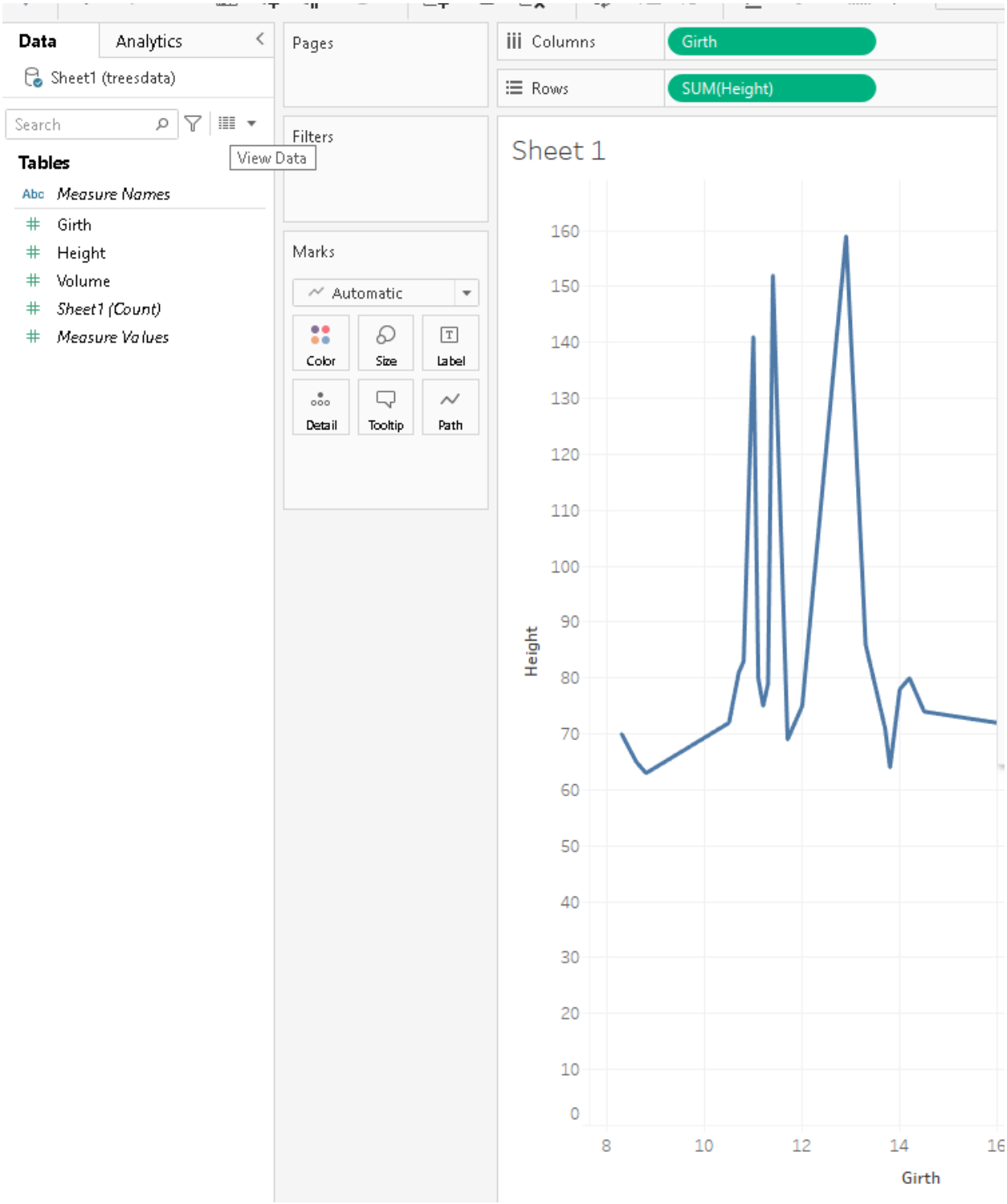
DSC310-T301

7/10/2024

Line Graph


RStudioGraphM3.R
Source on Save
Run
Source
1 library(ggplot2)
2 library(GGally)
3 library(CGPfunctions)
4 data(trees)
5
6 head(trees, 6)
7
8 p <- ggplot(data=trees, aes(x = Height, y = Girth)) +
geom_line()
9
10 print(p)
11
11:1
(Top Level)
R Script
Console
Terminal
Background Jobs
R 4.4.0 · ~/
Did you forget to add parentheses, as in `e2()`?
Run `rlang::last_trace()` to see where the error occurred.
> library(ggplot2)
> library(GGally)
> library(CGPfunctions)
> data(trees)
>
> head(trees, 6)
Girth Height Volume
1 8.3 70 10.3
2 8.6 65 10.3
3 8.8 63 10.2
4 10.5 72 16.4
5 10.7 81 18.8
6 10.8 83 19.7
>
> p <- ggplot(data=trees, aes(x = Height, y = Girth)) + geom
_line()
>
> print(p)
>
Environment
History
Connections
Tutorial
Import Dataset
394 MiB
List
R
Global Environment
trees
31 obs. of 3 variables
Values
animal chr [1:3] "Cat" "Dog" "Bird"
animals chr [1:5] "Rabbit" "Bird" "Squirr...
animalsInNa... num [1:5] 15 33 59 70 43
condition chr [1:9] "Big" "Small" "Medium" ...
group chr [1:5] "Cat" "Dog" "Bird" "Squ...
lab1974 chr [1:8] "4,21" "4,21" "1,22.8" ...
lab1976 chr [1:8] "21,4" "21,4" "22.8,1" ...
labels chr [1:5] "Birch" "Oak" "Pine" "A...
numberOfAni... num [1:5] 39 43 22 13 10
size chr [1:9] "Big" "Small" "Medium" ...
specie chr [1:9] "Cat" "Cat" "Cat" "Dog"...
treeHeights num [1:5] 15 33 59 70 43
Files
Plots
Packages
Help
Viewer
Presentation
Zoom
Export
20
16
12
8
Girth
70
80
Height


Data
Analytics
Sheet1 (treesdata)
Search
View Data
Tables
Abc Measure Names
Girth
Height
Volume
Sheet1 (Count)
Measure Values
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Path
Columns
Girth
Rows
SUM(Height)
Sheet 1
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Height
8
10
12
14
16
Girth

Area Graph

RStudioGraphM3.R

```
1  library(ggplot2)
2  library(GGally)
3  library(CGPfunctions)
4  data(trees)
5
6  head(trees, 6)
7
8  p <- ggplot(data=trees, aes(x = Height, y = Girth)) +
   geom_area()
9
10 print(p)
11
```

11:1 (Top Level) R Script

Console Terminal Background Jobs

R 4.4.0 · ~/

```
> print(p)
> library(ggplot2)
> library(GGally)
> library(CGPfunctions)
> data(trees)
>
> head(trees, 6)
  Girth Height Volume
1   8.3     70   10.3
2   8.6     65   10.3
3   8.8     63   10.2
4  10.5     72   16.4
5  10.7     81   18.8
6  10.8     83   19.7
>
> p <- ggplot(data=trees, aes(x = Height, y = Girth)) + geom
_area()
>
> print(p)
>
```

Environment History Connections Tutorial

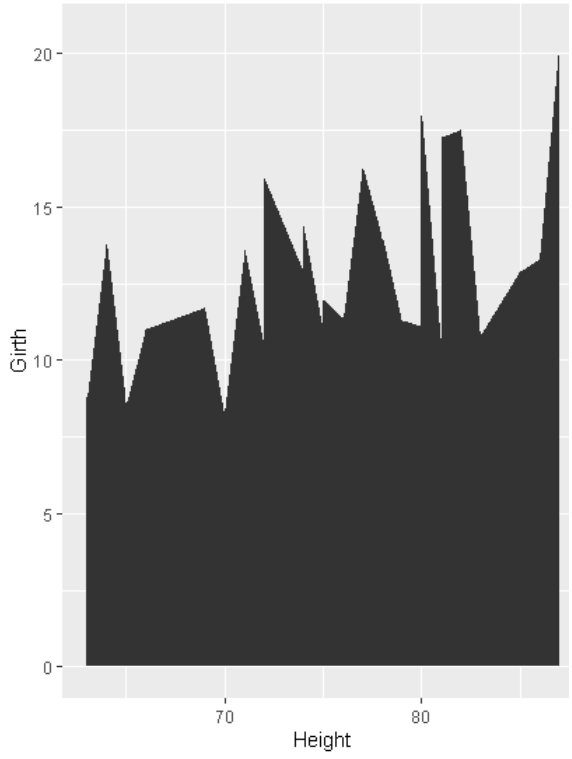
Import Dataset 394 MiB List

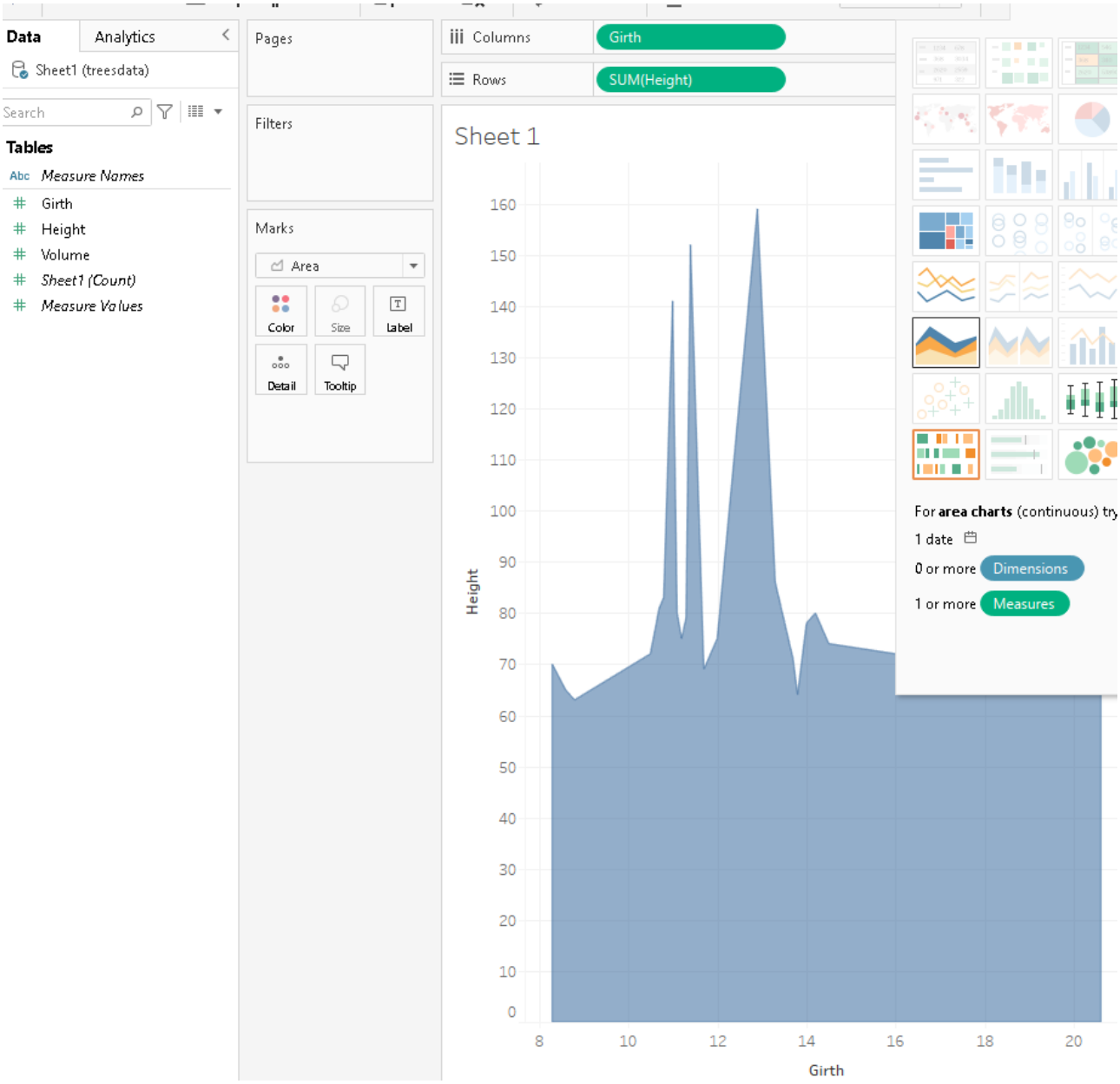
R Global Environment

trees	31 obs. of 3 variables
Values	
animal	chr [1:3] "Cat" "Dog" "Bird"
animals	chr [1:5] "Rabbit" "Bird" "Squirr…
animalsInNa…	num [1:5] 15 33 59 70 43
condition	chr [1:9] "Big" "Small" "Medium" …
group	chr [1:5] "Cat" "Dog" "Bird" "Squ…
lab1974	chr [1:8] "4,21" "4,21" "1,22.8" …
lab1976	chr [1:8] "21,4" "21,4" "22.8,1" …
labels	chr [1:5] "Birch" "Oak" "Pine" "A…
numberOfAni…	num [1:5] 39 43 22 13 10
size	chr [1:9] "Big" "Small" "Medium" …
specie	chr [1:9] "Cat" "Cat" "Cat" "Dog"…
treeHeights	num [1:5] 15 33 59 70 43

Files Plots Packages Help Viewer Presentation

Zoom Export





Multiple Times Series Line Chart

RStudioGraphM3.R

```
1  library(ggplot2)
2  library(GGally)
3  library(CGPfunctions)
4  data(trees)
5
6  head(trees, 6)
7
8  p <- ggplot(data=trees, aes(x = Height, y = Girth)) +
   geom_line() + xlab("")
9
10 print(p)
11
```

11:1 (Top Level) R Script

Console Terminal Background Jobs

R 4.4.0 · ~/

```
> print(p)
> library(ggplot2)
> library(GGally)
> library(CGPfunctions)
> data(trees)
>
> head(trees, 6)
  Girth Height Volume
1   8.3     70   10.3
2   8.6     65   10.3
3   8.8     63   10.2
4  10.5     72   16.4
5  10.7     81   18.8
6  10.8     83   19.7
>
> p <- ggplot(data=trees, aes(x = Height, y = Girth)) + geom
_line() + xlab("")
>
> print(p)
>
```

Environment History Connections Tutorial

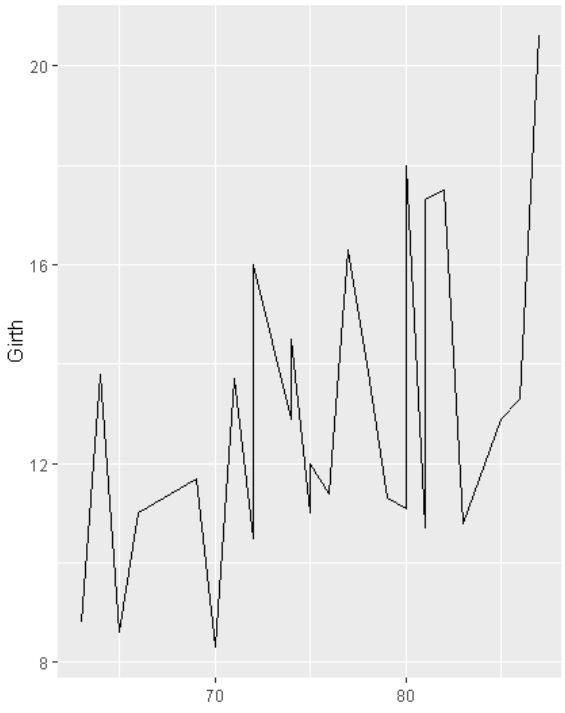
Import Dataset 395 MiB List

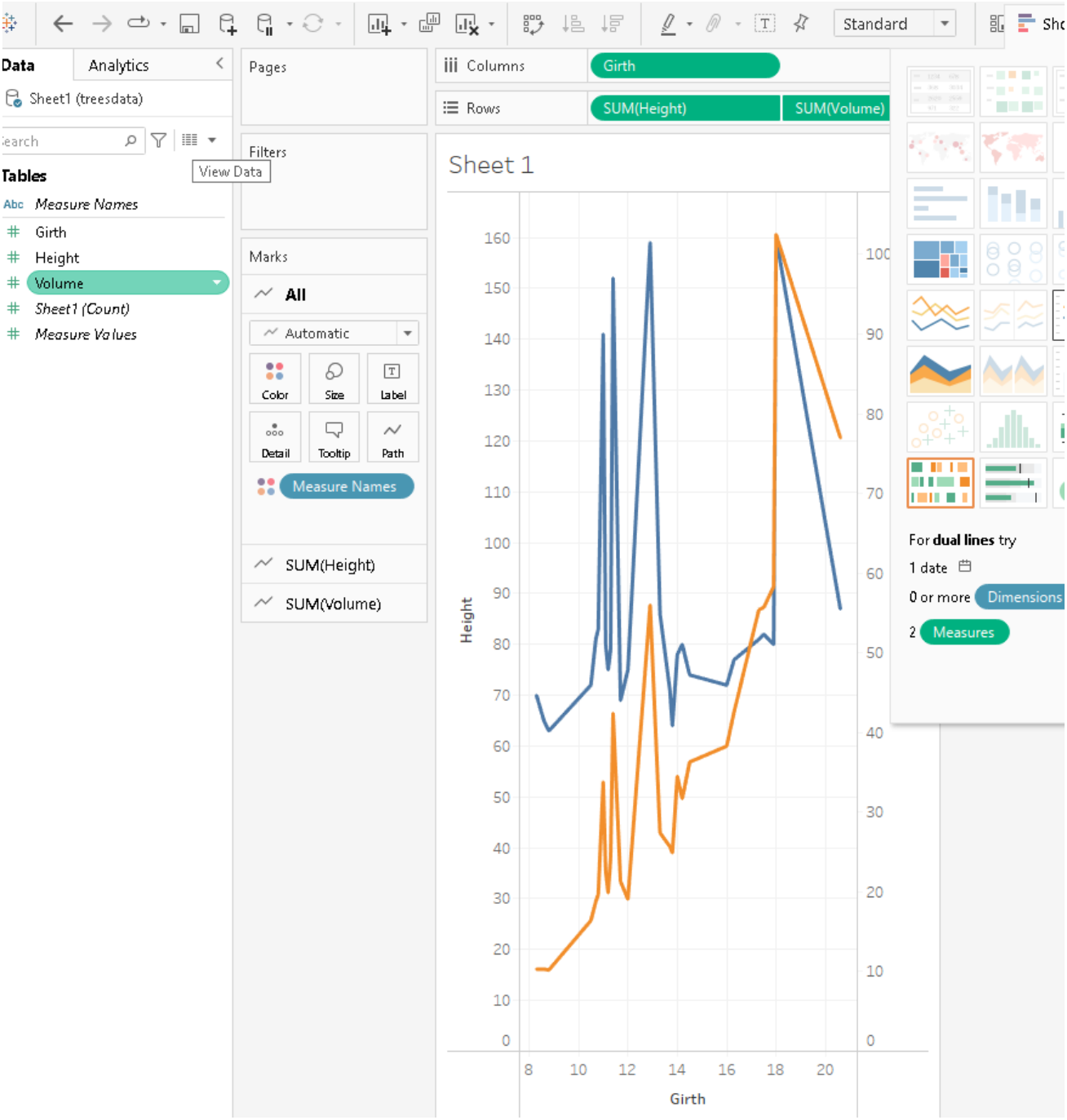
R Global Environment

trees	31 obs. of 3 variables
Values	
animal	chr [1:3] "Cat" "Dog" "Bird"
animals	chr [1:5] "Rabbit" "Bird" "Squirr...
animalsInNa...	num [1:5] 15 33 59 70 43
condition	chr [1:9] "Big" "Small" "Medium" ...
group	chr [1:5] "Cat" "Dog" "Bird" "Squ...
lab1974	chr [1:8] "4,21" "4,21" "1,22.8" ...
lab1976	chr [1:8] "21,4" "21,4" "22.8,1" ...
labels	chr [1:5] "Birch" "Oak" "Pine" "A...
numberofAni...	num [1:5] 39 43 22 13 10
size	chr [1:9] "Big" "Small" "Medium" ...
specie	chr [1:9] "Cat" "Cat" "Cat" "Dog"...
treeHeights	num [1:5] 15 33 59 70 43

Files Plots Packages Help Viewer Presentation

Zoom Export




Data
Analytics
Sheet1 (treesdata)
Tables
Abc Measure Names
Girth
Height
Volume
Sheet1 (Count)
Measure Values
View Data
Pages
Filters
Marks
All
Automatic
Color
Size
Label
Detail
Tooltip
Path
Measure Names
SUM(Height)
SUM(Volume)
Columns
Girth
Rows
SUM(Height)
SUM(Volume)
Standard
Sheet 1
Height
Girth
For dual lines try
1 date
0 or more
Dimensions
2
Measures

LOESS

RStudioGraphM3.R

```
1  library(ggplot2)
2  library(GGally)
3  library(CGPfunctions)
4  data(trees)
5
6  head(trees, 6)
7
8  p <- ggplot(data = trees, aes(x = Height, y = Girth)) +
   geom_point() + geom_smooth(method = "loess", size = 1.5)
9
10 print(p)
11
```

11:1 (Top Level) R Script

Console Terminal Background Jobs

R 4.4.0 · ~/

```
this warning was generated.
> library(ggplot2)
> library(GGally)
> library(CGPfunctions)
> data(trees)
>
> head(trees, 6)
  Girth Height Volume
1   8.3     70   10.3
2   8.6     65   10.3
3   8.8     63   10.2
4  10.5     72   16.4
5  10.7     81   18.8
6  10.8     83   19.7
>
> p <- ggplot(data = trees, aes(x = Height, y = Girth)) + ge
om_point() + geom_smooth(method = "loess", size = 1.5)
>
> print(p)
`geom_smooth()` using formula = 'y ~ x'
>
```

Environment History Connections Tutorial

Import Dataset 411 MiB List

R Global Environment

trees	31 obs. of 3 variables
Values	
animal	chr [1:3] "Cat" "Dog" "Bird"
animals	chr [1:5] "Rabbit" "Bird" "Squirr...
animalsInNa...	num [1:5] 15 33 59 70 43
condition	chr [1:9] "Big" "Small" "Medium" ...
group	chr [1:5] "Cat" "Dog" "Bird" "Squ...
lab1974	chr [1:8] "4,21" "4,21" "1,22.8" ...
lab1976	chr [1:8] "21,4" "21,4" "22.8,1" ...
labels	chr [1:5] "Birch" "Oak" "Pine" "A...
numberOfAni...	num [1:5] 39 43 22 13 10
size	chr [1:9] "Big" "Small" "Medium" ...
specie	chr [1:9] "Cat" "Cat" "Cat" "Dog"...
treeHeights	num [1:5] 15 33 59 70 43

Files Plots Packages Help Viewer Presentation

Zoom Export