

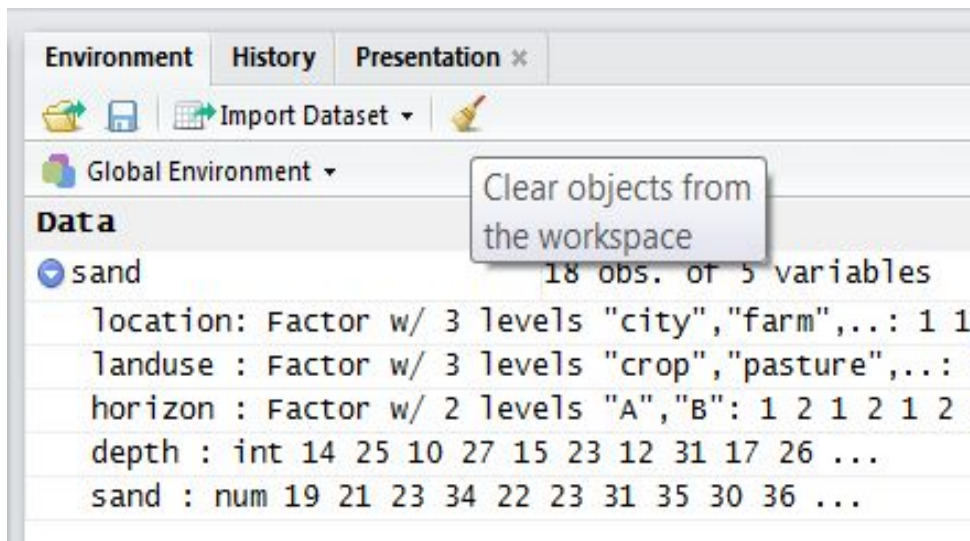
# Statistics Documentation

## 1. Introduction

RStudio is an awesome tool that can help you do your work better and faster, also RStudio is a cross-platform integrated development environment (IDE) for R, a programming language for statistical computing and graphics.

## 2. Explaining the Choices

Because R Studio is such a powerful tool, built specifically for statistics, we decided to harvest its' power and use it to deliver meaningful statistics to our clients. It allows you to see a full list of objects you are currently working with, the interaction is natural (for example, by just double clicking one of the objects, you get a graphical representation of it, or you can easily click back and forth between plots, change the sizes of your plot without rerunning the code, and export or copy plots to include in other documents).

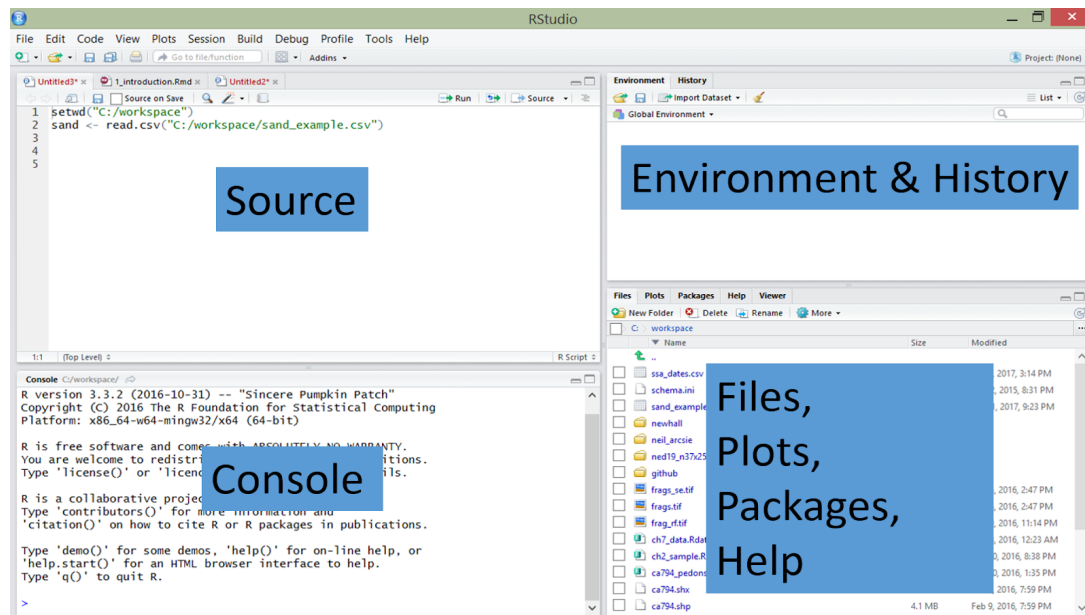


R Studio is also useful because of its' cross-platform interface, allowing you to get a seamless experience on both Windows and MacOS, reducing the differences between operating systems, so users don't get confused when switching between platforms.

Although R comes with many common statistical functions and models, most of our work requires additional packages witch R allows us to include to our project.

RStudio is designed to make it easy to write your scripts. For exemple as soon as you create a new script, the windos within your RStudio session adjust automatically so you can view both the script and the results you are getting from the console when you run your syntax.

R Studio is not only powerful, it is also free to use, making it perfect for delivering statistics, while also saving money, leaving room for profit. It is also a full-featured text editor, meaning it includes syntax highlighting, parenthesis and bracket matching, find/replace with regular expressions and so on.



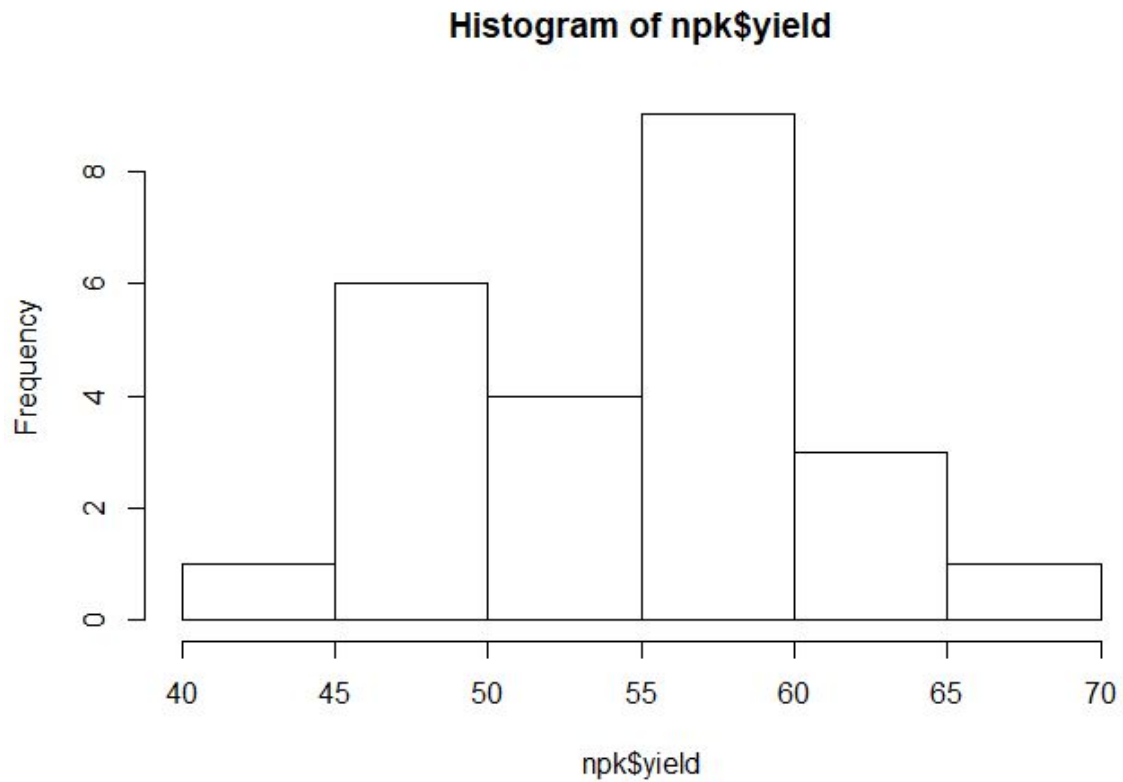
### 3. Methods Implemented

In the following text we will enumerate the columns which will be used in statistics from each table. Columns will either be used alone or in combinations to provide more relevant statistics.

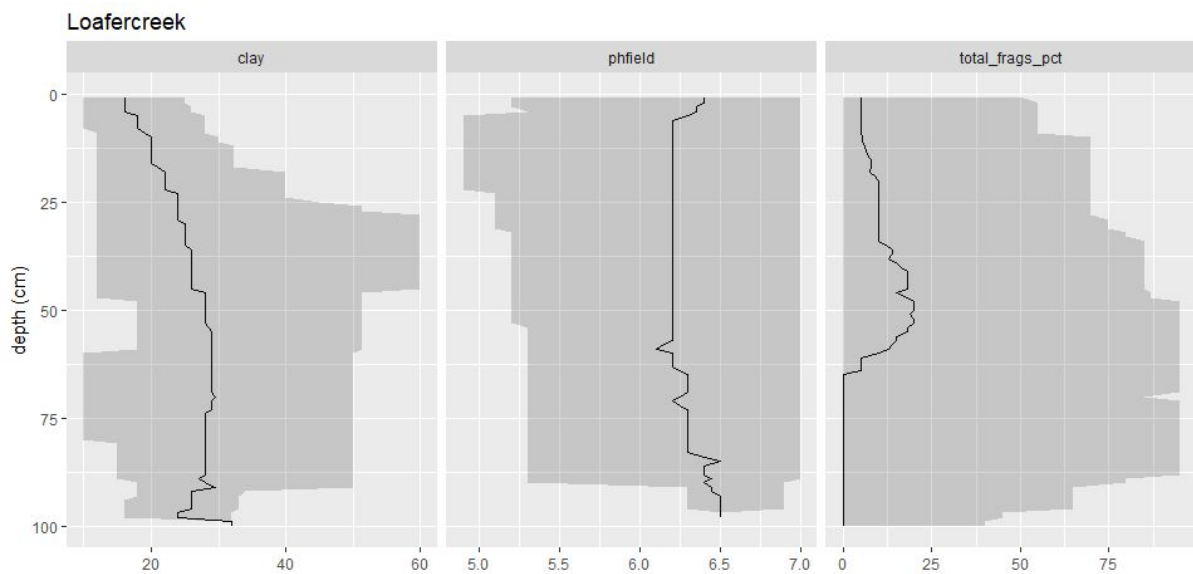
**In table Patients:** Sex, Age, U/R, Gastritis, Tumor Location, Stage of Disease, Patological Anatomy, IHC, Degree of Differentiation, Distance, Metastasis, Lymphadenopathy, Tabacosis, Ethanol Consumption, Diagnostic Imagistic, Anemia, Trombocytopenia, Trombocytosis, Leucocytosis, Immune Deficiency, Sepsis, BPOC, TBC Aftermath, Respiratory Failure, AOMI, HTA, Aortic Autorematosis, Ischaemic Heart Failure, Sinus Tachycardia, Cardiac Insufficiency, AVC Aftermath, DZ, Obesity, Nutrition Disorders, Candida, Chronic Hypertrophic Rhinitis, Epidermoid Operated Cyst, Brachial Operated Cyst, Facial Nerve Paralysis, Acute Lymphadenitis (of face, neck and head), Toxic Chronic Hepatitis, Viral C Hepatitis, Hepatic Statorsis, Lung Cancer, Lip Carcinoma, Pelvis Operated and Chemo-treated Tumor, Arm Meningioma, Mucositis, Oedema (lateral wall), Renal Failure, Treatment, Surgery, Radiotherapy

#### 4. Photo Examples of Graphics and Statistics

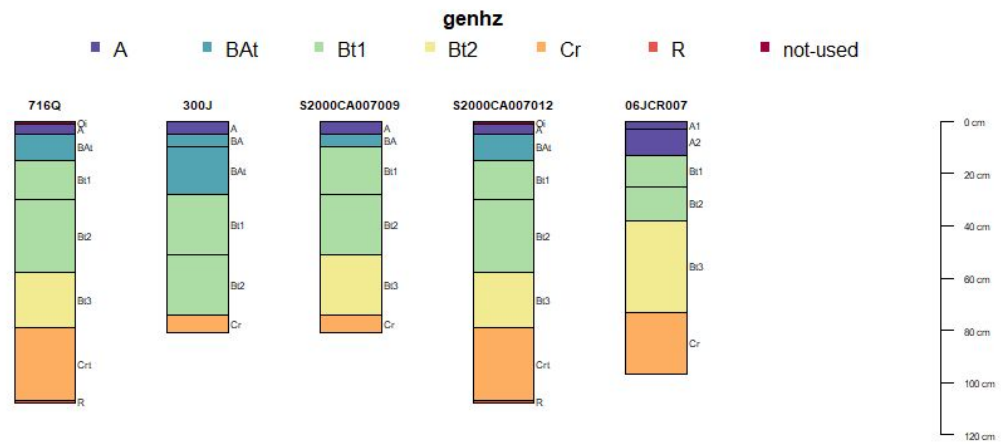
Draw Graphics based on Statistics :



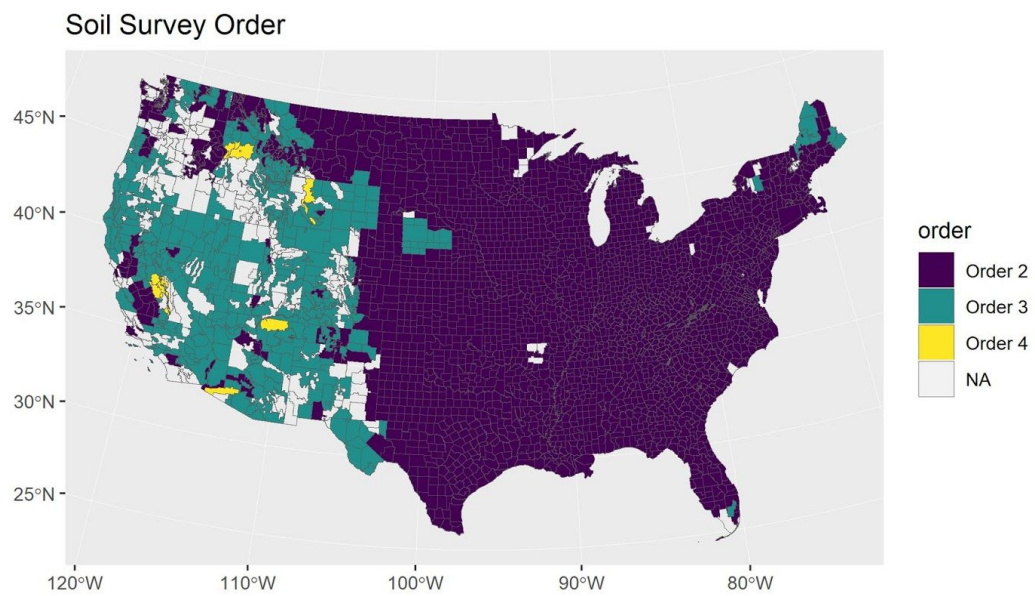
Draw Depth Plots :



Draw Solid Profiles :



Create Maps :



## 5. Conclusions

Because of the explanations and reasons listed above, we believe that R Studio is perfect for our statistics task. The sheer power of the tool, combined with the fact that it is both open-source and free to use, make it the perfect candidate tool for this job.

## Resources:

<https://www.r-bloggers.com/top-6-reasons-you-need-to-be-using-rstudio/>

<https://libguides.library.kent.edu/statconsulting/r?fbclid=IwAR0tGoTq5XV-nwd0ud7uZga6uGpUbLGRTBt0DP3eBuAWdz5oHJCzrlZFRNw>

<https://www.quora.com/What-is-RStudio-used-for?fbclid=IwAR0LoJE3fwjGyjd0JpjTXLqI4LfJHjxhj6yhX1sThD9Ys67ImCgS1kqxR8w>