

When to use RStudio

As a data analyst, you will have plenty of tools to work with in each phase of your analysis. Sometimes, you will be able to meet your objectives by working in a spreadsheet program or using SQL with a database. In this reading, you will go through some examples of when working in R and RStudio might be your better option instead.



Why RStudio?

One of your core tasks as an analyst will be converting raw data into insights that are accurate, useful, and interesting. That can be tricky to do when the raw data is complex. R and RStudio are designed to handle large data sets, which spreadsheets might not be able to handle as well. RStudio also makes it easy to reproduce your work on different datasets. When you input your code, it's simple to just load a new dataset and run your scripts again. You can also create more detailed visualizations using RStudio.

When RStudio truly shines

When the data is spread across multiple categories or groups, it can be challenging to manage your analysis, visualize trends, and build graphics. And the more groups of data that you need to work with, the harder those tasks become. That's where RStudio comes in.

For example, imagine you are analyzing sales data for every city across an entire country. That is a lot of data from a lot of different groups—in this case, each city has its own group of data.

Here are a few ways RStudio could help in this situation:

- Using RStudio makes it easy to take a specific analysis step and perform it for each group using basic code. In this example, you could calculate the yearly average sales data for every city.
- RStudio also allows for flexible data visualization. You can visualize differences across the cities effectively using plotting features like facets—which you’ll learn more about later on.
- You can also use RStudio to automatically create an output of summary stats—or even your visualized plots—for each group.

As you learn more about R and RStudio moving forward in this program, you’ll get a better understanding of when RStudio should be your data analysis tool of choice.

For more information

- **The Advantages of RStudio**: This web page explains some of the reasons why RStudio is many analysts’ preferred choice for interfacing with R. You’ll learn about the advantages of using RStudio for data analysis, from ease of use to accessibility of graphics and more.
- **Data analysis and R programming**: This online introduction to data analysis and R programming is a good starting point for R and RStudio users. It also includes a list of detailed explanations about the advantages of using R and RStudio. You’ll also find a helpful guide for getting set up with RStudio.