# How to Select the Right Data Analysis & Visualization Software

GraphPad

# Introduction

## Transforming raw data into compelling visuals is an important step in your research process.

However, many researchers are still using legacy tools and spreadsheets, manipulating data, running statistical analyses manually, and building graphs from scratch. It's a slow process susceptible to errors that can hurt the credibility of research (and the researchers involved).

Data Analysis & Visualization (DA&V) software can help you save time performing statistical analyses - minimizing errors and improve the accuracy of results - and create beautiful, compelling visuals that give your research the presentation it deserves.

We've drawn from our experience and consulted our team of in-house statisticians and data visualization experts to compile the top five considerations we think are the most important when selecting a DA&V tool for your lab.

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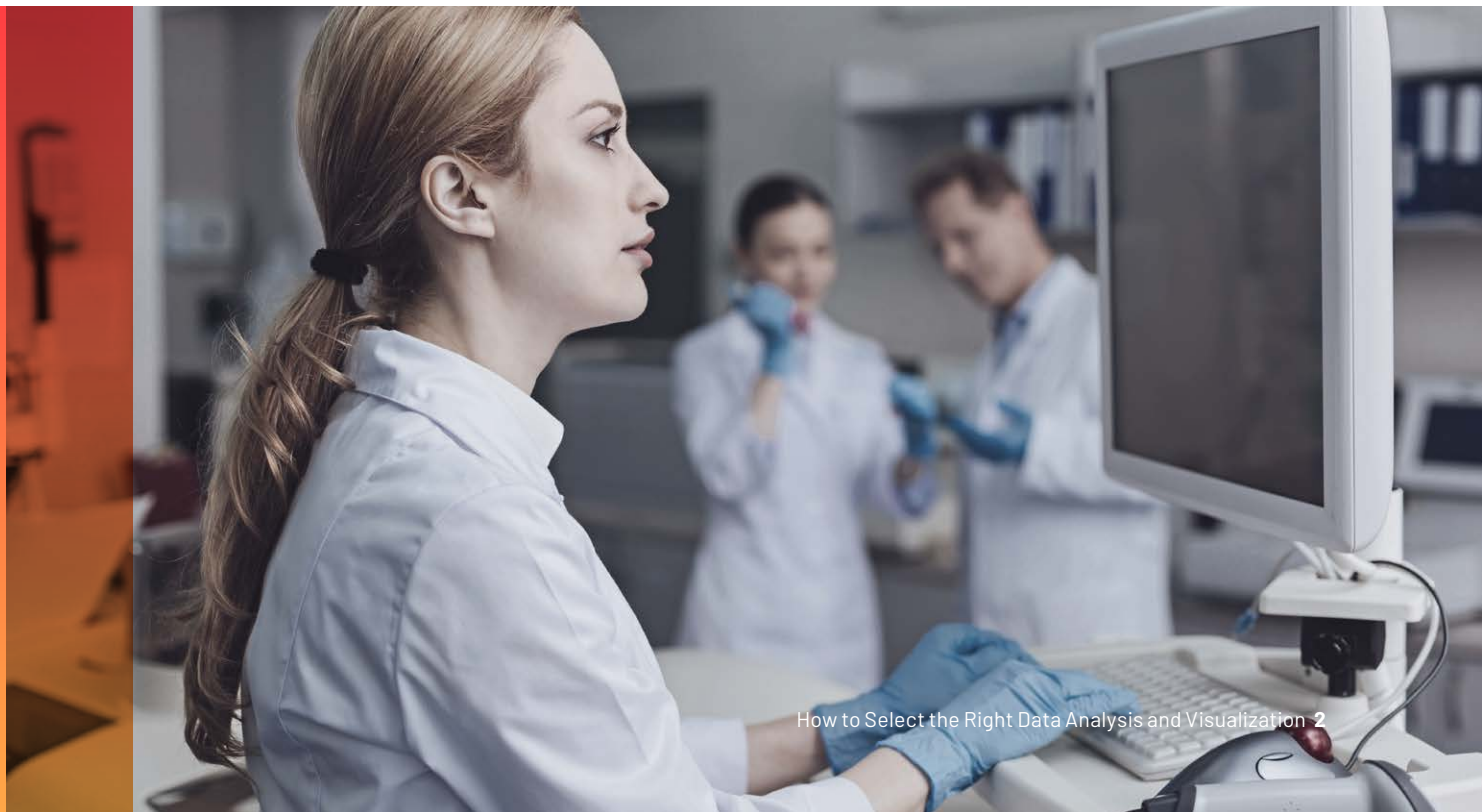

## Consideration #1

# How will this software make me more productive?

Good DA&V software will help you work smarter, not harder. However, each tool will have a different level of upfront investment in time to get to that point.

Some tools are designed to be intuitive and easy to use out of the box. Other popular tools have a steeper learning curve and require adopting new skills. Both types of tools can be very powerful, but the best fit for you will match the time investment you plan to make to begin to see value in your purchase.

During the software evaluation process we recommend answering the following questions:

1. How easy is the tool for you to use?
2. How much time do you want to invest in learning a new tool?
3. What is the onboarding process? How quickly can you begin to use the tool effectively?
4. Do you value an easy to use tool to help you save time or having robust extensibility capabilities for complex projects?

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## Consideration #2

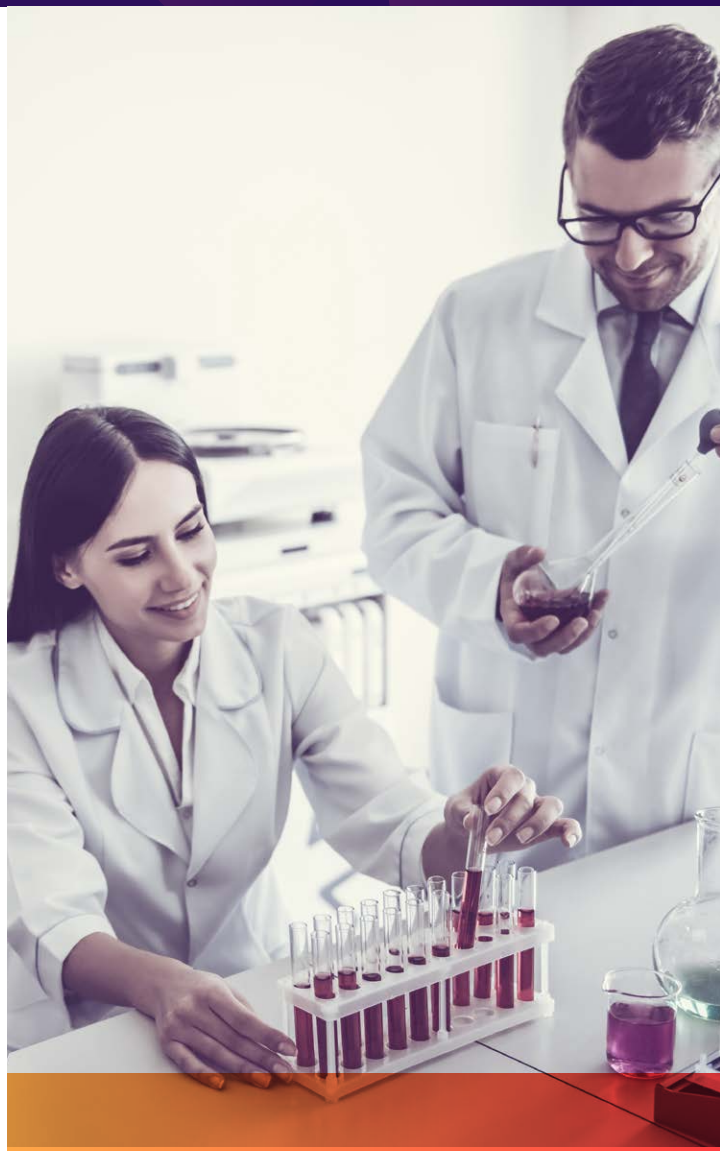
# How does this software help me be a better scientist or researcher?

Your experiments are unique, and data is rarely uniform, so the list of potential analyses and graph types is seemingly infinite.

The DA&V tool you select should help you navigate these possibilities without limiting your ability to make the best decisions for your research.

When vetting DA&V tools from this perspective, we recommend finding answers to the following questions:

1. Does this tool offer any in-app prompts or guides that will help you make more accurate and informed choices?
2. What is the background of the team managing feature design and updates? Do they have a scientific background?
3. How does this tool help you understand the underlying assumptions required to perform key analyses?
4. Does the tool help me better communicate key findings in my research through clear and compelling visuals?
5. Has the company invested in customer support and user education for your specific use case(s)?



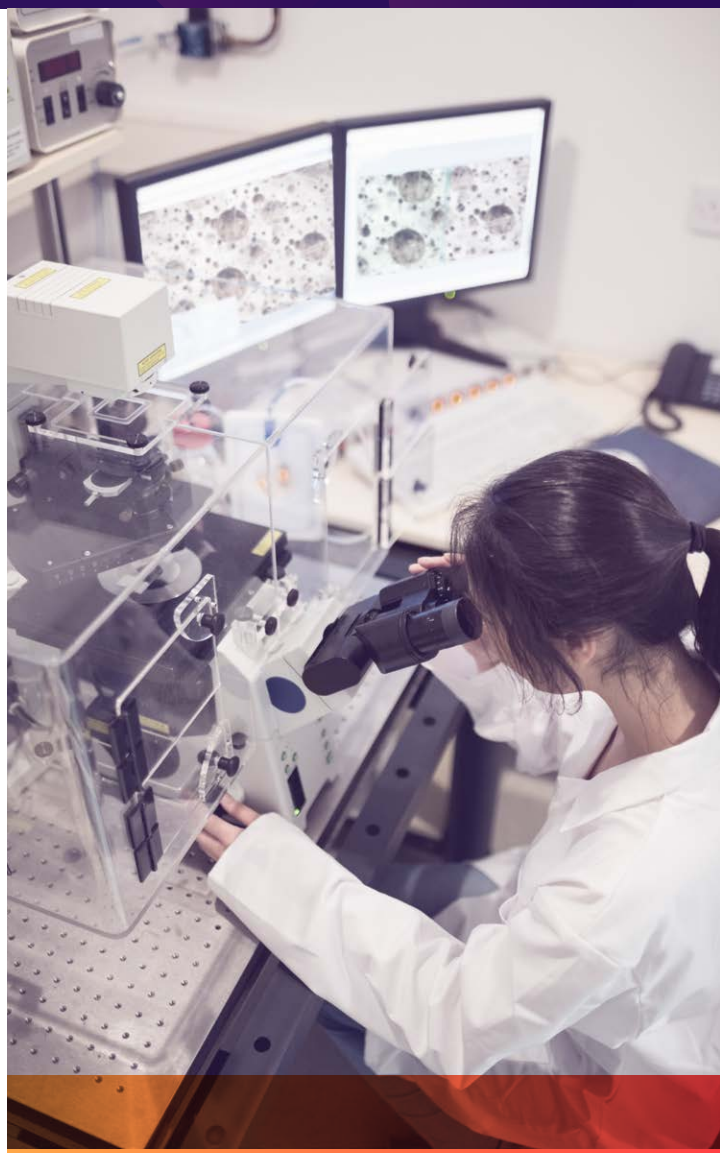
## Consideration #3

# Is this DA&V tool right for my lab?

If you're in the market for a DA&V tool, a key consideration is how it will integrate with your lab's existing processes.

We recommended taking a quick assessment of your lab's software, processes, and team design before answer the following questions about the tools you are considering:

1. How will this tool help you collaborate with colleagues?
2. Is it easy to share data, files and notes from the software?
3. Does the tool require that other researchers in the lab have the same tool to be able to collaborate?
4. How familiar are the other researchers in your lab with the tool? Does your team have confidence and enthusiasm for this tool?
5. Does this tool support your lab's regulatory and compliance requirements?



## Consideration #4

# How specialized is this tool for my specific use case?

### The right DA&V tool should streamline and automate your research processes.

Whether you are looking for a tool that is bespoke to your needs right out of the box or you prefer to take the time to master robust customization capabilities, the more tailored your tool is to your needs the more helpful and useful it becomes.

#### Make sure you consider the following:

1. Does the company specialize in one or multiple use cases? Industries? Research types? Who are the typical users?
2. Is this a well respected and validated tool in the industry? Is it often cited in research?
3. What parts of your workflow do you want the tool to automate?
4. What customization options are available to streamline your day-to-day work?
5. What unique features of the tool simplify your processes and help you save time?

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## Consideration #5

# Are these the features I really need?

### Finally, researchers need to consider the actual feature set of each tool.

Because many tools in this space offer a vast array of features, it helps to see how these features are organized to help researchers and scientists achieve certain outcomes.

### Most researchers trying to go from raw data to compelling visuals follow the following three steps:

1. Preparing raw experimentation data for analysis
2. Selecting and performing the correct analysis for their experiment data
3. Transforming data into compelling visuals

### Make sure you consider the following:

1. Does the tool help you organize your data effectively?
2. Does the tool offer the analyses you most often perform?
3. What are the customization options for data visualization?

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