5 ways to choose the right data visualization software

It's no secret that extracting actionable insights from industrial data is a complex and nuanced process. There's no one-size-fits-all approach to data visualization because every stakeholder across every industrial operation requires different outputs to do their jobs effectively. Getting the most out of your data requires taking a layered approach to data visualization so users can access one common digital thread and still meet all of their unique needs.

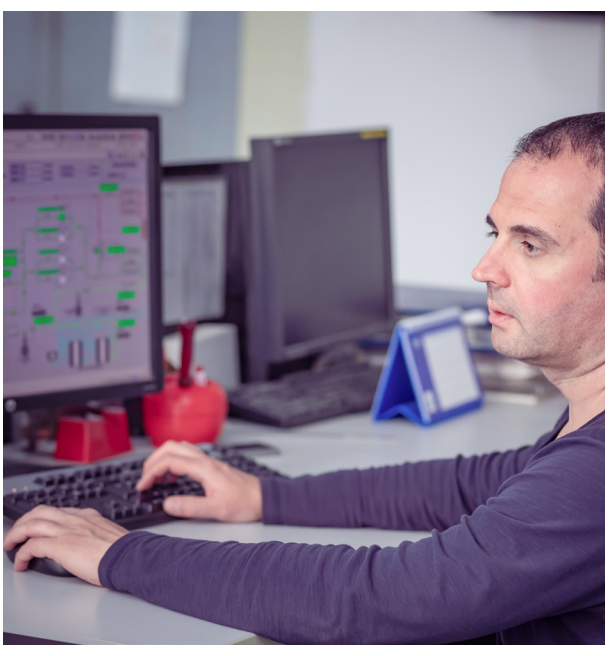
Here are five ways you can choose the right data visualization software for your industrial operation:

1 Get the right perspective

All of your users are different, with varying viewpoints based on their roles and objectives. By asking the right questions, you can assess solutions from your users' perspective — and set yourself up for success.

Questions you should ask:

- Which roles require data visualization, what questions do users have, and what data do they need to gain answers?
- Which unique capabilities are required, such as control or KPI drill-down functionality?
- Do users need to visualize historical, current, or future information?



2 Keep functionality in mind

Your visualization outputs and tool functions are critical, and nothing can thwart adoption — and profitability — like ineffective tools. By setting design and governance standards, such as layout and application of color, you can ensure consistency, optimize the user experience, and promote adoption.

Questions you should ask:

- Should you create or use specific design standards or governance guidelines??
- Should the visualization be organized by business area, line, product, or another way?
- How are designs handled for different form factors, personas, and use cases?

3 Determine your publishing parameters

Before taking the leap, you'll have to determine how your users will access visualizations as well as what information your user groups are privy to. An on-premises solution may seem great, but can be a challenge if you have offsite personnel. With cloud and hybrid options available, it's easy to design a solution that can give your users access to the right information when and where they need it, without compromising security and confidentiality.

Questions you should ask:

- Will your users access information on-premises, in the cloud, or using a hybrid approach?
- Will users always access visualizations from the same locations and what types of devices will they use?
- What are the disaster recovery requirements to maintain business continuity?

4 Consider your communication chain

Collaboration is key to optimizing project outcomes, and you must give your teams the tools they need to pass information between groups, share tasks, or flag questions or concerns. It's important to make sure any visualization software facilitates communication in a way that furthers your organizational goals.

Questions you should ask:

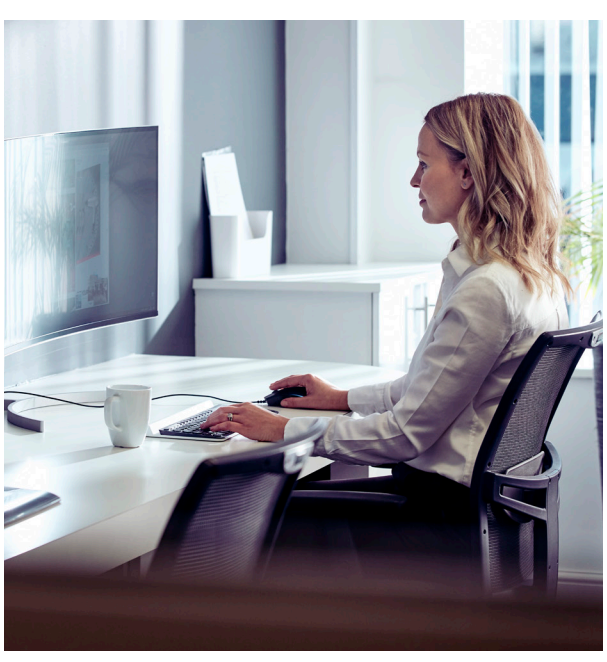
- Does information need to be passed between groups, both internal and external?
- What tasks or activities need to be coordinated and how will users share or call attention to specific information?
- Does the visualization state need to be saved?

5 Begin with the end in mind

Ultimately, visualization software should enable your users to make the right decisions and take action in a way that will help reach goals and benefit the bottom line. By first laying out your goals, how you'll measure ROI, how other tools will interact with visualizations, and how you plan to incorporate a feedback loop, you can optimize your project outcomes — before it starts.

Questions you should ask:

- What should visualizations accomplish and how will you measure success?
- What other software interacts with visualization and will you need to adjust other procedures as a result of new tools?
- How are lessons learned incorporated back into the system?



From enterprise visualization to operations data, engineering data to operations control and HMI, these tools can help you maximize the insights you can extract from your industrial data. By establishing your evaluation criteria with your end users and goals in mind, you can choose the right visualization software for your organization.

For years, companies like Yinson, SNOLAB, Rio Tinto, and Qatar Education City have used visualization tools to optimize their operations — and you can, too. Talk to one of our experts to get on the path to visualization success.

Contact us