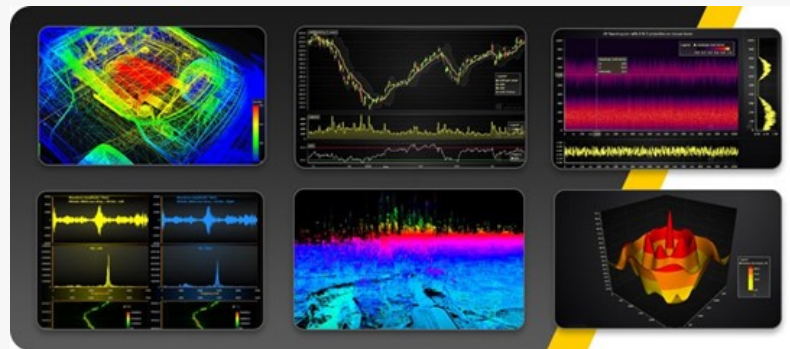


Top 9 Reasons a JavaScript Charting Library is the Best Data

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/EINPresswire.com/ -- Visualization
Component

JavaScript is a programming language that enables developers to create interactive charts and graphs. A JS charting library will be compatible with most devices, including web and mobile apps for a cross-platform development environment.



LightningChart JavaScript Charting Library

Some characteristics that make a JavaScript Charting Library a powerful visualization tool are:

Rendering technology.

WebGL is the most advanced rendering technology. It's compatible with GPU acceleration.

The full potential in web graphics displayed by WebGL is limited. Factors like resource consumption, and algorithms sometimes limit what the graphics can render. Most [powerful JavaScript charting libraries](#) have optimized resources that allow the end application to render charts at the maximum performance.

GPU acceleration.

GPUs are more efficient for different graphical tasks because it works with the CPU to speed up the processing time. With advanced GPU-accelerated plots and graphs, you can process-visualizations quickly and easily.

Library collection.

Powerful JavaScript charting libraries often offer a variety of chart types for different use cases and industries. LightningChart JS features more than 100 [interactive visualization examples](#) that meet different industry-specific needs without requiring further investment in development time.

Algorithms.

High-end web technologies alone don't guarantee high performance, but intelligent algorithms

can.

An intelligent algorithm can make your data visualization application to work more efficiently by combining current technologies' different tools.

CPU & resource consumption.

CPU resources on devices are limited. When data visualization tools use the device's full capacity, other tasks become slower and can even stop working because they don't have enough CPU power.

By using a chart that consumes too many resources, the user is unable to interact with it. This means that the system will most likely freeze up. It is serious because this prevents industries and people from getting fast responses from applications they need to process and analyze in real-time.

Frames Per Second (FPS)/Refresh rate.

How does the refresh rate in data visualization play a role? Generally, graphics can be misleading if the refresh rate is too slow. Higher quality illustrations come from higher-quality GPU and CPU rendering.

Charting libraries must render at 40 FPS at least, depending on the number of data points that are being rendered. Slower speeds could result in a bad visual experience.

Load-up speed.

When cars measure how long it takes to go from 0-100, they do it in a few seconds. Charting components measure the rendering time in milliseconds.

The load-up speed measures the rendering process and how many milliseconds it takes to load/display the chart fully. The faster the load-up time, the better the user experience.

The maximum amount of data visualized.

How many data points can a plotting or data visualization application handle before it crashes? This will depend on what technology it is and the chart type.

For example, the LightningChart JS [Static Surface chart](#), renders a max. amount of 144 million data points in only 1,260 milliseconds.

Incoming data points.

This parameter shows the amount of data that the chart can handle to receive within the application. The more data, the more power is needed, which can cause the program to run out of memory and crash.

Referring to LightningChart JS' Appending Surface charts as a good reference of this high-speed

performance, the total number of incoming data points per second that can process are 200,000 data points.

The performance of a JS chart may depend on what type of chart it is, so that performance will vary from library to library.

Pasi Tuomainen

Arction Ltd.

+358 453150905

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