Demo: Shield UI JavaScript Chart - A Flexible HTML5 Data Visualization Component

Jordan Stoikov

Shield UI Ltd., Sofia, Bulgaria

`customerservice@shieldui.com`

Abstract. Shield UI's advanced framework for creating rich charts and graphs is the first of a line of data visualization components, giving web developers the power for embedding rich graphics in their web projects with minimum effort. Built with HTML, CSS3 and packaged as a jQuery plugin, the library has full support for legacy and modern desktop web browsers, as well as the latest mobile devices.

Keywords: HTML5, JavaScript, Chart, Graph

1 Introduction

Over the past years, internet usage has skyrocketed. With the increasing number of internet users, web pages have evolved drastically. Their design is getting more appealing, and their speed, responsiveness and usability are continuously increasing. Such high level of interactivity is supported by a complex frameworks and libraries, which are impossible to implement from scratch in a short period of time. This leads to the emergence of a multitude of user interface components, sharing the common goals to be reusable and offer a great deal of customization options.

A good example of such a component is Shield UI's charting engine. The Europe-based private company has just launched that JavaScript library for creating various types of charts and graphs [1]. It is the first of a line of data visualization components, suitable for developers who want to embed powerful graphics in their web projects with minimum effort. The charting library is built on top of the latest HTML5 and CSS3 technologies, and is available as a jQuery plugin, making it extremely easy to use and maintain. Supporting legacy and modern desktop web browsers, as well as the latest mobile web browsers, Shield UI charts run on all devices and platforms.

2 Shield UI Charts in Action

The Shield UI charting framework is a tool that takes away all the concerns of the web developer, related to implementing various visualization algorithms, setting the layout and the appearance of the control, and dealing with browser compatibility and

performance. Everything that one needs to do is to setup the control on the page and customize its properties using pure JavaScript. The rich customization options allow developers to build eye-catching graphs, bringing the desired look and feel to any web project [2]. From simple things like changing the appearance, to complex scenarios involving Internationalization or processing client events, Shield UI provides extensive tailoring abilities to developers.

The initialization options [3] required to render a chart are only the data, represented by a list of values in most cases, and the type of chart. Shield UI chart supports many types of charts like area, bar, line, range, column, pie, donut and others. The component comes with two prebuilt themes, but many additional customization options are also available to the developers. The default labels for chart title, subtitle, axes and tick labels, graph points, tooltips and legend can be changed. Colors and other styling like fonts, borders, shadows, animation, position, etc can be easily modified. Animation, zooming, exporting, printing, localization, internationalization and other functionality can be preconfigured. Along with numeric values, date and time are also accepted as graph input, making our charting solution one of the few supporting temporal data.

To provide a bigger degree of flexibility, Shield UI has recently released ASP.NET, MVC.NET and Apache Wicket server-side wrappers for their charting component. Now developers can integrate them in their .NET and Java projects, and combine client-side productivity with server-side usability, by utilizing the code-completion feature and comfort of their preferred development environment.

The reason for the popularity and the real benefit of such client-side UI tools nowadays lies in the problems they solve. Frameworks like Shield UI Charts allow the developers to deliver vast amounts of functionality to the end user, in a short period of time, with minimal effort. Furthermore, developers would not need to worry about browser and device compatibility, future version releases and even developer support, as those are included in the Shield UI package.

References

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