



CASE STUDY
SciChart.iOS

Realtime Waveform Visualization of Cardiovascular Data for Medical Diagnostics.

Customer

Avicena Heart

Industry

Medical





Background

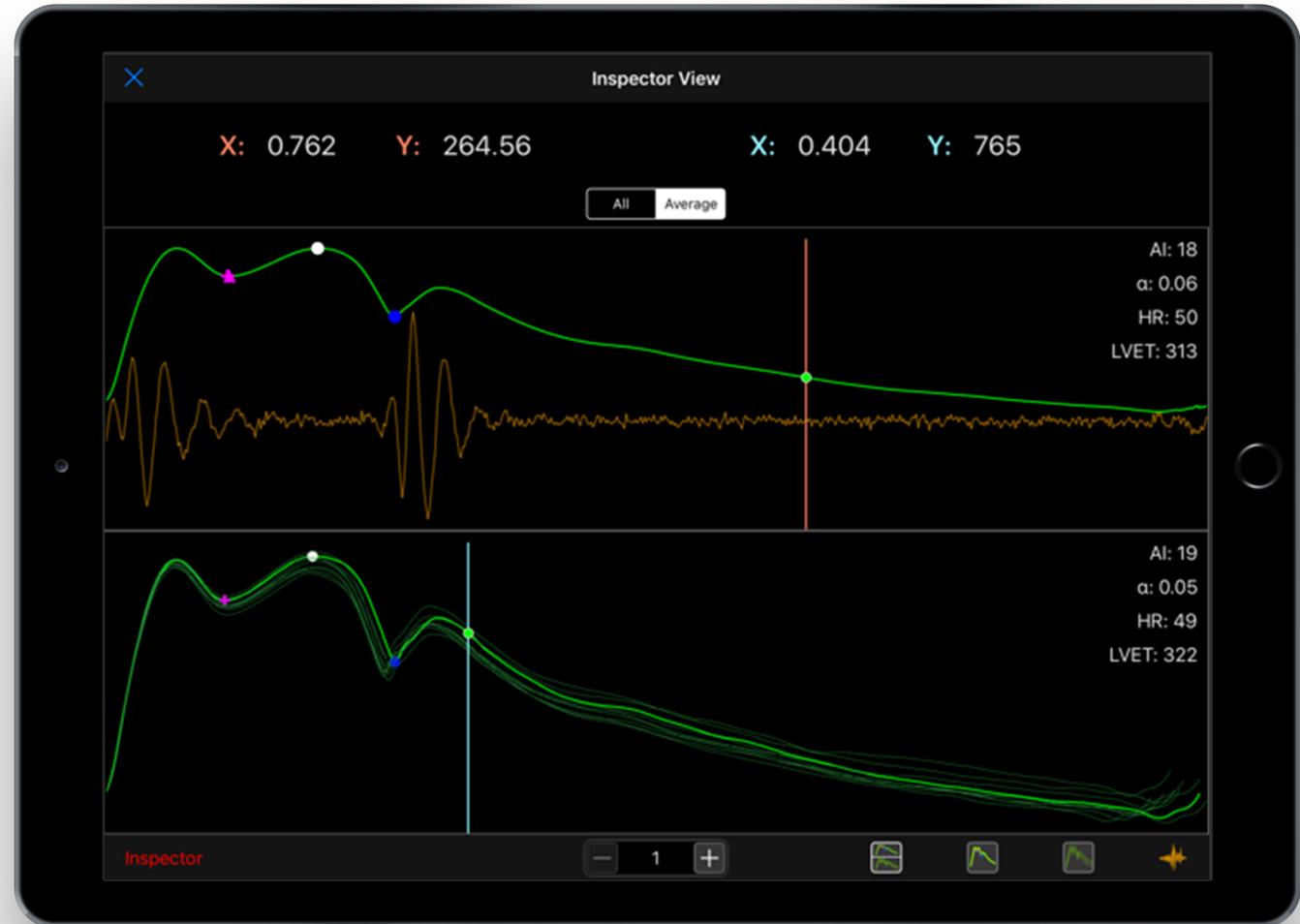
Avicena is a medical device company developing an algorithm and new proprietary sensor platform, the Vivio, for extracting real time information about Cardiovascular function.

Through the Vivio, live, high-bandwidth, multi-series cardiovascular data is streamed directly to a mobile device via Bluetooth.

The goal is to provide critical information to patients and physicians through the mobile app which is consumer friendly and makes health data clinically relevant.

Project Motivation & Goals

To outperform standard methods of Cardiovascular diagnosis.





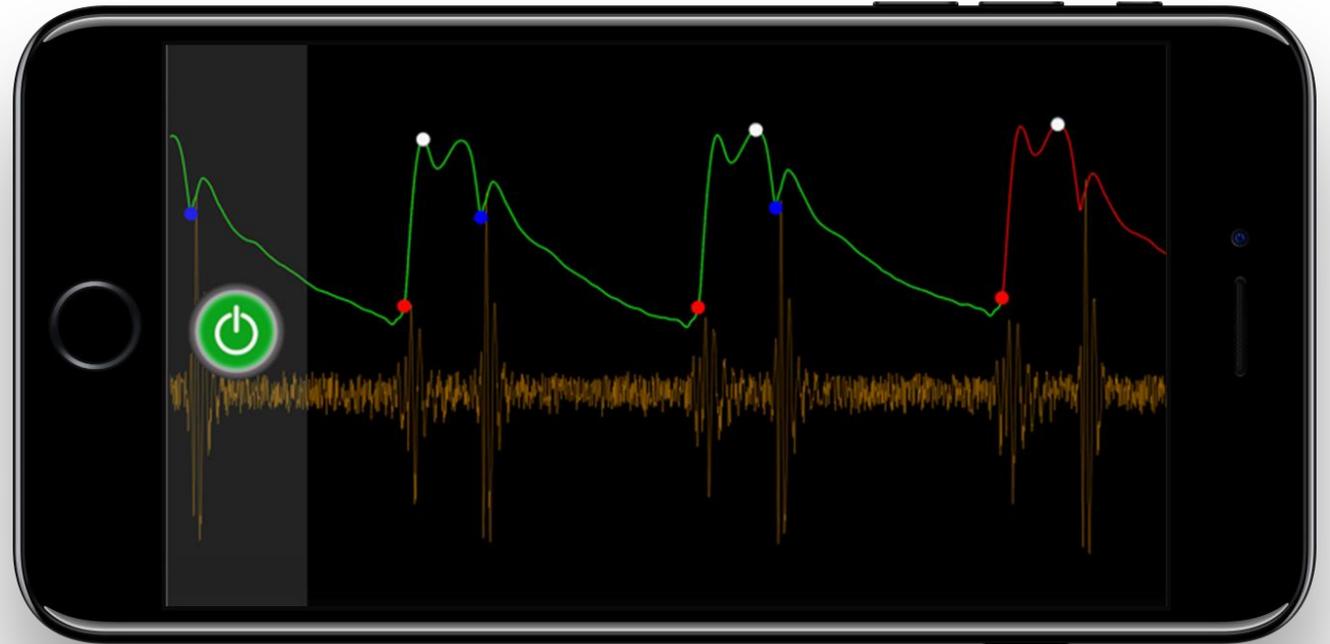
Requirements

- To display accurate Realtime Cardiovascular data streamed from the Vivio on mobile
- To handle high bandwidth multi series data streams simultaneously (total of 90 series)
- To allow for bespoke customization
- To maintain a smooth UI forming the center piece of their application..

Drawbacks before SciChart

Avicena attempted to use other commercial and opensource iOS Charting Software to plot Waveforms in real time but found it deficient in many ways:

- Inability to handle multiple data streams
- Difficulty handling Realtime High bandwidth data
- Little to no customization
- Poor UI





Solution

High Performance Charting – SciChart’s exceptional performance of large datasets was able to render over a million points in a line at interactive framerates handling Realtime data streams easily.

Extremely Fast - Benefiting from the ultimate efficiency of native-code and GPU-acceleration with High-Performance iOS charting Library, multiple data streams were easy to deal with, allowing Avicena to handle up to 90 series simultaneously.

Many Popular Chart Types - Including Lines, Band, OHLC, Heatmaps and ECG to name a few, SciChart’s extensive Charting Library came pre-packed with loads of charting solutions to serve all purposes.

Fully Customizable - Rich Chart Annotations API allowed to create fully-interactive, customizable chart annotations as well as to change the appearance of the entire chart by tweaking the default styles through the Chart Modifiers API. Avicena created the bespoke charts they needed.

CASE STUDY

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Outstanding Performance with Real-time plotting of multiple series”

“Great Support!”

“SciChart was an ideal solution for the real-time plotting that is the centerpiece of our UI”

Sean Brady, CEO, Avicena LLC.



About SciChart

SciChart is a cross-platform WPF, iOS, Android and Xamarin Scientific & Financial Charting Library.

SciChart supports rendering of complex, interactive, real-time charts with many millions of data points for demanding scientific, medical and financial applications and embedded systems that require high performance, rich interaction and smooth updates.

SciChart Ltd

16 Beaufort Court, Admirals Way, Docklands. E14 9XL. London.
United Kingdom

Web: <https://www.scichart.com>

Contact us at: sales@scichart.com

