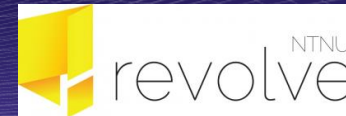




SCiCHART

CASE STUDY



Customer

Revolve NTNU Norwegian University of Science and Technology

Industry

Engineering

Notes

This implementation has been done as part of SciCharts "Free Educational license" for academic and non-profit projects.

Visualization of data from more than 300 sensors from a race car



Background

REVOLVE NTNU: An independent student organization at the Norwegian University of Science and Technology.

THE MISSION: “From theory to practice” with a team consisting of 64 members who work voluntarily parallel to full time engineering studies from 13 different engineering fields

GOAL: To develop and build a race car from scratch in one year with the help of the engineering students unique skill sets.

ACHIEVEMENTS: Revolve now creates a highly complex race car for competition year in year out since 2014.

Data & Preconditions

- Data from over 300 sensors
- Multiple Chart types
- Realtime Monitoring
- Easy to use charting solution for Students

Requirements

Revolve needed a charting tool that could handle visualisation of data received from over 300 sensors at a time to be displayed in:

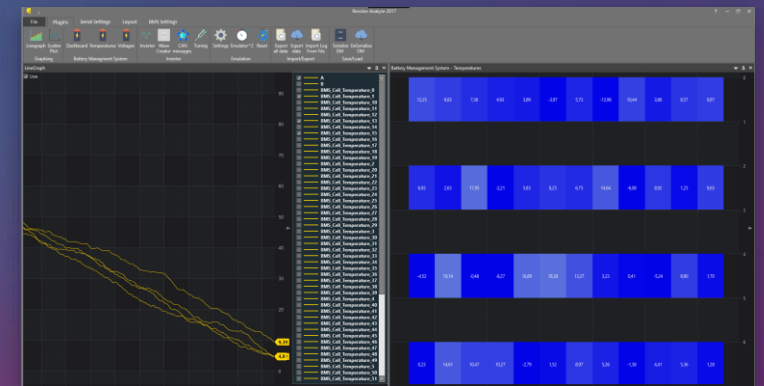
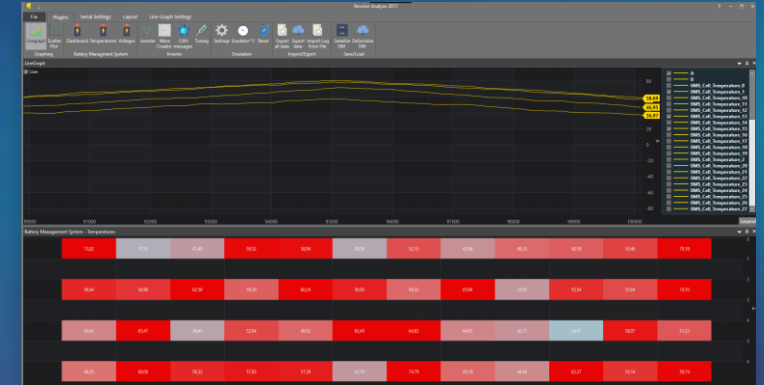
- Line graphs
- Scatter plots
- Heatmaps

This data needed to be visualised from the sensors mounted inside the Formula Student Race Car. The sensors collected data from temperature and voltage as well as performance. Data needed to be analysed in:

- Realtime
- For performance adjustments
- For Testing

The Charting solution needed to be Easy To Use and flexible with extensive documentation, FAQ's and general all round usability.

To help students to be able to get to grips with the software and interpret data accurately.



Solution

High Performance Charts

SciChart WPF Charts were able to smoothly handle the data from all 300+ Sensors in Realtime

Rich Core WPF Charting API

Data was interpreted and annotated for performance analysis and testing

Extensive Chart Types and Examples

Line Charts, Scatter Plots & Heatmaps were already readily available from our extensive example library.

Comprehensive Documentation & World Class Support

Easy to use, and with excellent FAQ's, Scichart was easy to integrate into their custom systems.



SciChart is a flexible, high-performance graphing tool, which has made a great difference for us. As students, it's been challenging to dive straight into developing a program on our own. With the support of SciChart, graphing has been a cinch. Not only was it easy to use, but if we ran into trouble, the SciChart team always had our backs. Since we are all students working on this project, good documentation, FAQ answers, customer service and usability was a major factor as well. In these departments, we are very pleased with SciChart, and would definitely recommend it to others.

Maja Worren Legernæs

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.

Find out more about SciChart at <https://scichart.com>

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