FRESHCODE
We make ideas happen

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FloTron

Client: Nova Fabrica Ltd.

Client Site: novafabrica.biz

Industry: Microelectronics

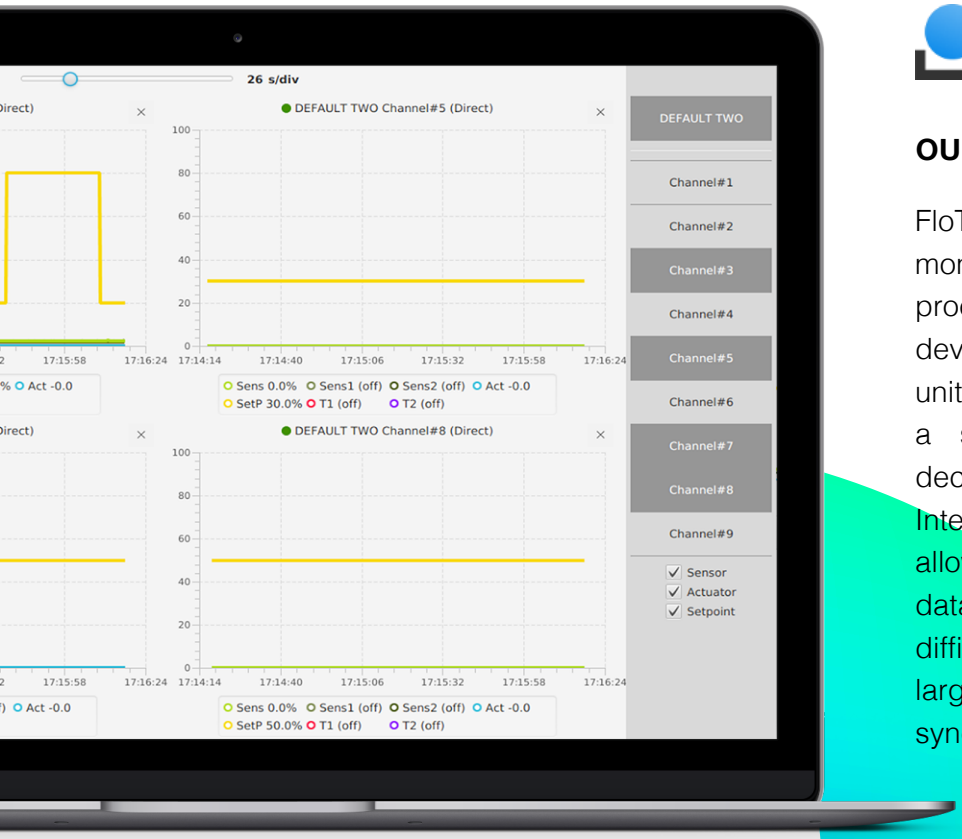
Country: Lithuania

Size of the Team: 7 people

Duration: 3 months

Technologies Used:

JAVA
C#
WCF
WEBSOCKETS
JAVAFX



NOVA FABRICA
ENABLING THIN FILM PROCESS SOLUTIONS

OUR CLIENT

FloTron is a multichannel control and monitoring system for manufacturing processes. The system includes hardware device connected to a series of peripheral units, such as sensors and actuators, and a software suite. Nova Fabrica Ltd. decided it was time to add Graphic User Interface (GUI) to a working system to allow users remote real-time access to the data via Internet connection. Two main difficulties of GUI development included a large number of reference points and their synchronization with displayed data.

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BUSINESS ISSUES

At Nova Fabrica Ltd. they know their clients' needs, so our team was tasked with implementation of a precise set of requirements :

- Profibus and Profinet communication interfaces support
- Java and .Net libraries support
- XML as the data exchange protocol
- Real-time spectrogram plotting
- Multigraph mode for simultaneous real-time graphs for every chosen channel
- Monitor mode for choosing any combination of system signals and their simultaneous plotting on a single graph
- System events and warning display
- Data import and export
- Statistics log
- System search

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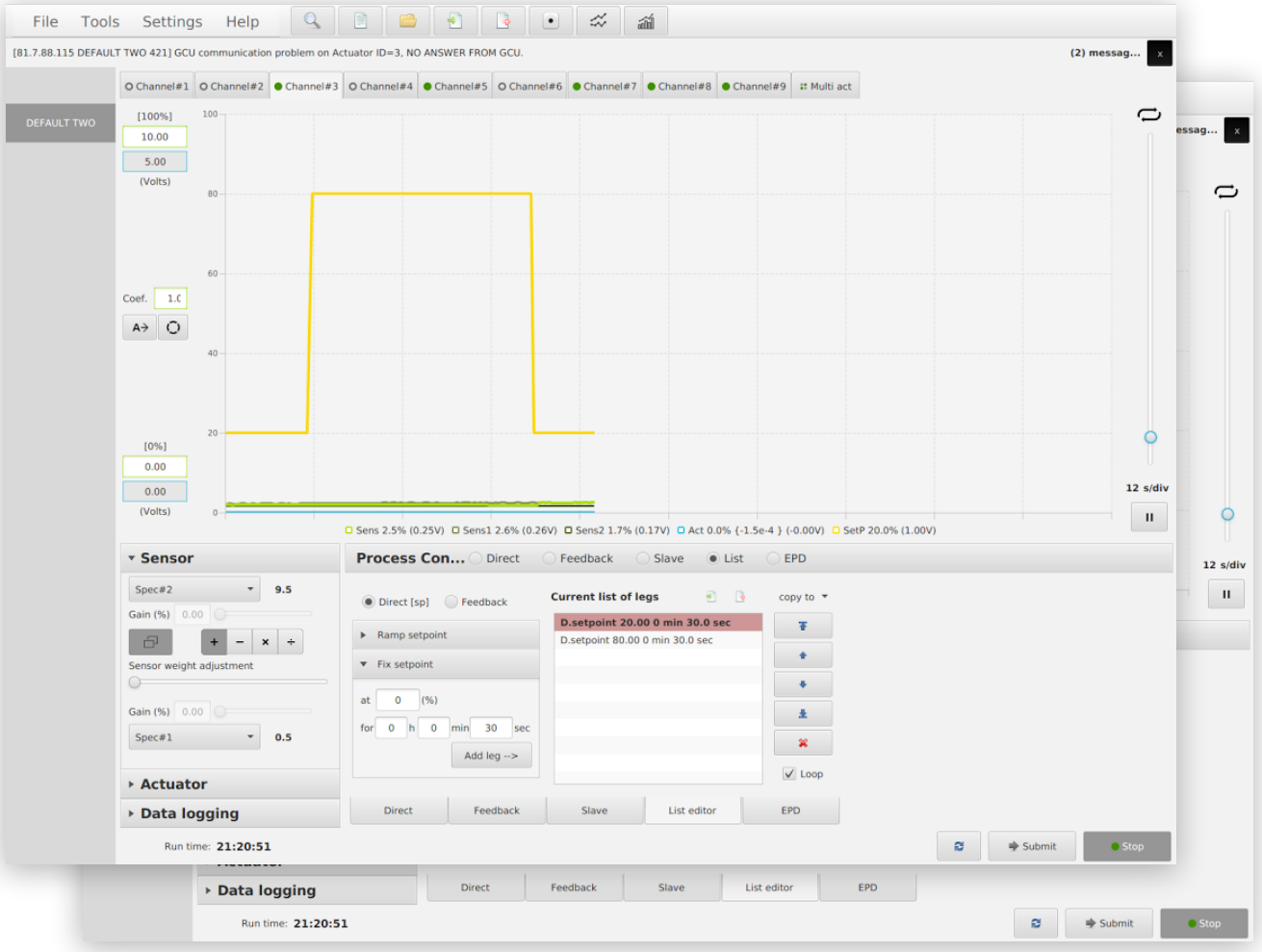
SOLUTIONS

It took our team of seven only three months to develop Graphic User Interface (GUI) for the FloTron multichannel control and monitoring system. GUI allows for constant real-time manufacturing processes and plasma ejection monitoring along with optical radiation spectrometry. Monitoring any channel users vary scale, graph type and change statistics settings.

System settings can be imported and exported for different users. Spectrometers, Multigraph and Monitor modes are used for data visualization.
Our developers implemented a number of Java modifications, created unique graphs' aggregation and calculation algorithms. Logarithmic graph visualization was developed along with adaptation of decimation algorithms.



BUSINESS VALUE

FloTron systems by Nova Fabrica Ltd include a range of high-tech precision devices well known in the microelectronics industry. GUI introduction widened FloTron functionality and perfected its usability. The system has received a general recognition and many customers have already left positive feedback.