Services and Skills

case study

Industrial Automation Management Software for Mesh Wireless Devices

AirSprite, Inc., a startup industrial automation software company, engaged Neubloc to design and develop a Flex and SQLite software application to enable users to proactively monitor and manage wireless devices at industrial plants. Most industrial plants including oil, gas, chemical, power, and water and wastewater treatment companies operate their plants with older, hard-wired control systems with over 1,000 device measurement points, none of which currently use wireless technology. These plants use networks to link devices and instruments utilizing control and management systems to measure temperature, pressure, level and flow readings. Many measurement points go unmeasured as the cost of running wires to each device on the network is prohibitive.

AirSprite's software and hardware solution provides access to this valuable device data by attaching mesh wireless access points to plant devices. Using AirSprite software, users can monitor and proactively manage the performance of these devices. As the system conforms to HART standards and giving users the ability to set 'triggers', the software can display a device's current performance status so users can easily determine problem devices and respond accordingly. Users can also view device data over time so as to identify performance trends for each device.

AirSprite teamed with Neubloc to provide turnkey product development services including: product requirements definition based on user needs; user experience design and production; software engineering focused on Flex and SQLite; and QA.

Project Summary

Project Goals

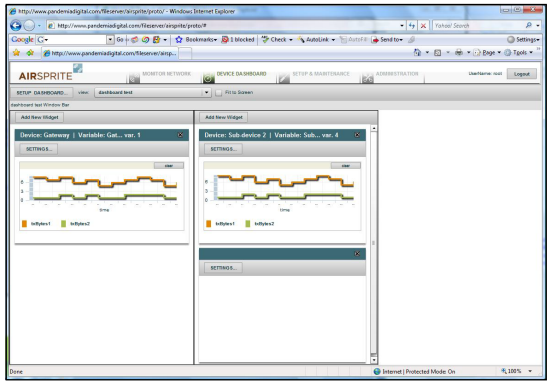
- Develop initial release within 4 months
- Provide users with an intuitive and visual metaphor to manage devices efficiently

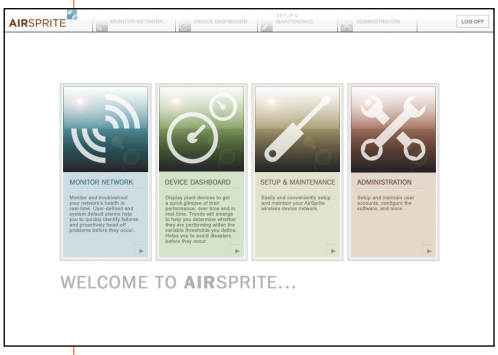
Skills and Resources Required

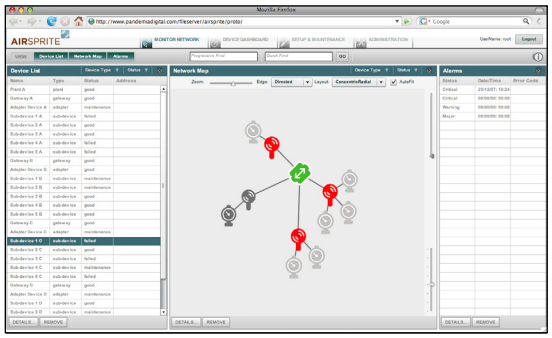
- Detailed UI specification/documentation
- Graphic user interface design
- System architecture design
- Flex software engineering
- SQLite software engineering
- Quality assurance

Right — Dashboard providing ability to view individual device performance trends using dynamic charts.

Below — Main Menu providing access to the software's 4 main modules. Provides users with proper orientation to the software. The software only enables modules that the user can access based on their role assignment.







Right — Monitor screen showing icon and list representations of each device using Flex. Users can manipulate the view dynamically. Using color and symbols, users can quickly identify the status of each device.

"Our UI went from an Geek-type GUI to a very professional, well thought out user interface bringing this product to par with some of the best commercial software available in the market today. I have done a few of these exercises but never felt so strongly about the quality of the outcome."

Jean Dubois – AirSprite VP Engineering