The agriculture industry has benefited greatly from advances in data acquisition and visualization software. Farmers have been eager to adopt sensors and data monitoring technology to help optimize precision agricultural techniques, irrigation, pest control, and more. Farmers are decreasing resource consumption and increasing yield every day.

WHAT CAN IT DO FOR US?

- Automate processes for irrigation and natural pest control
- Conservation of water and reduced waste
- More precise control over planting and watering schedules
- Increased yield
- Reduce environmental impact
“We are well poised to cater to larger contracts with these added capabilities.”

UNDERSTANDING THE CUSTOMER:

Algae Lab Systems provides Monitoring and Control systems for two industries: the commercial algae growing industry and the aquaculture industry. Their systems enable customers to optimize their productivity, and save them time by automating their quality control processes.

They provide a turnkey Photobioreactor Monitoring and Control system designed to help optimize algae yield. Their AlgaeConnect™ platform integrates the data from sensors: pH, temperature, DO, density, flow rate, water level, and many others into a cohesive software/hardware platform.

The system monitors, stores, and displays all status parameters of the photobioreactors, and also automates their behavior with controlled CO2 or nutrient dosing, and activation of other devices like harvesting pumps and valves.
THE NEED
Algae Lab Systems contacted B-Scada when a customer of theirs was looking for a way to aggregate data from several hundred AlgaeConnect™ systems, each with several photobioreactors/ponds, in a single system. The customer wanted a centralized interface through which to access their data, and they wanted it to be composed of graphics they chose.

THE CONSTRAINTS
The customer was already using the AlgaeConnect™ system prior to their expansion, which covered the monitoring and controlling of the equipment in clusters of reactors, as well as logging and graphing data, along with some other functions, but still lacked the ability to integrate the data from multiple AlgaeConnect™ deployments through a single interface with the custom graphics they desired.
**B-SCADA’s Product Suite**

**IoT Platform**

B-Scada’s Status Device Cloud Platform allows commercial and light industrial customers to quickly and easily develop custom applications for the IoT (Internet of Things). Consolidate and organize data from Sensors, PLCs, Databases and Users for real-time visualization on any device with a web connection. Status Device Cloud leverages the scalability and reliability of Microsoft Azure.

**Wireless Sensors**

B-Scada’s wireless sensors are a perfect combination of quality, affordability, and convenience. Sensors and gateways are preconfigured for plug-and-play installation. Simply place the sensors where needed and start viewing your data on any web-enabled device. Monitoring service includes unlimited email/text alerts. Enhance an existing network or create your own IoT solution with B-Scada’s sensors and software (which works with other vendors’ hardware as well).

**SCADA Software**

B-Scada provides machine-level HMI (Human Machine Interface) solutions designed for quick and easy deployment, as well as more sophisticated enterprise-level SCADA solutions that bring together and organize plant floor data with other enterprise information to improve the efficiency and quality of operations by empowering greater situational awareness and real-time decision support.
Using B-Scada’s Status software, Algae Lab Systems was able to develop a solution that employed custom graphics and allowed their customer to aggregate data from multiple AlgaeConnect™ deployments. B-Scada was involved to help provide some custom functionality and support. In the end, all of the customer’s needs and expectations were met and Algae Lab systems is now poised to cater to larger contracts in the future with their added capabilities.

Because they started with the Status platform, Algae Lab Systems developed the system they needed in a fraction of the time it would take to develop their own.

Whereas in the past Algae Lab Systems offered turnkey solutions to small and medium-size growers or partial solutions to large algae growers, they are now positioned to offer full turnkey solutions to companies with large numbers of photobioreactors and multiple tank farms.

“We received very timely and pleasant support and in the end things always got worked out to our satisfaction. The B-Scada staff are outstanding in their politeness, response time, and willingness to help.”

- Christopher Lee, CEO Algae Lab Systems
B-Scada has provided best-in-breed industrial data visualization solutions since 2003, and has adapted its world class SCADA (Supervisory Control and Data Acquisition) technology to the IoT (Internet of Things), bringing data acquisition, analysis, and visualization to light industrial, commercial, and residential customers as well.
In addition to high-quality sensing hardware and intelligent software platforms, B-Scada also offers numerous professional services to help bring a customer’s vision to life.

**CONSULTING**

B-Scada has helped develop a wide range of custom solutions in numerous industrial verticals since 2003. B-Scada’s expert staff is uniquely qualified to help plan and design a project, tailoring it to the specific needs and technical capabilities of the customer. B-Scada also maintains a large network of industry partners to bring specific domain expertise to any project.

**DEVELOPMENT**

B-Scada provides a powerful, but easy-to-use platform for developing custom applications. B-Scada also employs a development team composed of recognized experts who have provided expertise in .NET development to Fortune 500 companies and industry leaders throughout the world. Augment any system with the optimal customized utilities and applications.

**DESIGN**

B-Scada’s powerful drag-and-drop graphic design software lets anyone design like a pro. B-Scada also provides professional design services for any market. Our designers combine a great eye for design with expert knowledge of usability requirements and best practices, allowing them to work seamlessly with development teams to create great looking and highly functional applications.

**TRAINING**

A successful project extends beyond development and implementation. It also includes the successful transfer of knowledge to the client to ensure they are fully prepared to make the most of their new application. From the beginning of our work, throughout the project and delivery, we train the staff assigned by the customer to provide them with technical autonomy.
B-Scada, Inc. develops hardware and software solutions for the IoT (Internet of Things), SCADA (Supervisory Control and Data Acquisition) and HMI (Human Machine Interface) markets. B-Scada’s wireless sensing hardware provides a high quality, plug-and-play option for customers looking to create a wireless sensor network or add intelligence to an existing network. B-Scada’s software systems connect sensors, machines, databases and users in real time, enabling unprecedented analytics, visualization, alarming, and automation. B-Scada solutions can be hosted on site or Cloud server.