Readily Available!
Remote Monitoring of Livestock Farming and Aquaculture

Site monitoring over your smartphone.

Email reports in times of anomalies.
Displays temperature trends and history.

With this system, I can stay anywhere with no worries.

Cattle barn
Chicken coop
Piggery
Flounders
Shrimps
Eels

M-SYSTEM CO., LTD.
www.m-system.com
Chicken Coop Environmental Management with Anomaly Reporting

Before

- Chicken coop interior temperature
- Equipment conditions (ventilator conditions etc.)

Temperature control is important for egg production. We wanted an email report right away to know any anomaly.

After

- I am relieved that I can receive email reports at any time now.

Recording Bulk Cooler Temperature

Before

We had to adjust the opening angle of the ventilation port and turn the fan ON and OFF on site according to the wind direction and speed.

After

- The DL8 has enabled remote monitoring and control, and we don’t need to go to the cattle barn frequently.

Remote Monitoring and Control of Ventilation Port of Cattle Barn

Before

- Bulk cooler: An installation that incorporates a milk storage tank with a cooler in combination to suppress the growth of bacteria.

After

- All the milk carried in the tank goes bad as a result of the growth of bacteria unless proper temperature control is performed. We had to be sure to supply power and be careful about the maintenance of the equipment.

Piggery Environment Monitoring and Anomaly Reporting

Before

- We occasionally made clerical errors.

After

- We have succeeded in monitoring the quantity of dissolved oxygen, in particular, needed to be checked frequently.

Anomaly reporting

- With the WL40F Series and DL8, we have succeeded in monitoring all piggeries at once and receiving anomaly mail reports.
Remote Monitoring of Shrimp Farming

We had to keep handwriting records on water temperature, pH, and dissolved oxygen values, which was an exceedingly difficult job because there were plenty of water tanks. We occasionally made clerical errors.

Before

Automatic report preparation

After

We adopted the DL30, which has been automatically keeping daily, monthly, and yearly reports. Moreover, we used the WL40F Series[^2] wireless modules to gather data, which has saved a lot of wiring work.

Prediction and Preventive Maintenance of Feed Grinding Machine

We thought it would be great if we could predict when the feed grinding machine was going to malfunction. We had hoped to use a vibration sensor for remote monitoring but gave up on the idea because of a difficulty with wiring.

Before

We found an equivalent model in M-System. In addition, we have adopted the DL8 to produce email reports of temperature anomalies.

After

Water Temperature Control of Aquaculture Ponds

The conventional temperature controller was broken, but we could not purchase the same model because it was no longer manufactured. This was a problem.

Before

After

Remote Monitoring of Dissolved Oxygen in the Aquaculture Ponds

The aquaculture ponds were quite a distance away. Just looking around was a hard job, let alone feeding fish in each of them. The quantity of dissolved oxygen, in particular, needed to be checked frequently.

Before

After

^2) This device is approved for use only in the US.
Case Examples of Products Introduced

900 MHz ISM Band Multi-hop Wireless System WL40F Series

The WL40F Series uses 900 MHz radio waves that have excellent wraparound and propagation characteristics with long-distance reachability, transmitted in a multi-hop system (in relay mode via child units).
- Free communication charges.
- No license fees.
- Reaching a long line-of-sight distance, up to 1 km (0.62 miles). (*1)

(*1) Be sure to conduct a signal strength site survey before introducing the WL40F Series.

Wireless Gateway
Model: WL40EW2F
The Wireless Gateway converts the Modbus/TCP protocol into the 900 MHz band radio protocol and vice versa.

Wireless I/O
Model: WL40W1F
The WL40F Series Wireless I/O is an economical multi-hop wireless module that integrates a communication block, power supply block, and I/O block into single package.

Tablet Recorder
Model: TR30-G
The Tablet Recorder is a data recorder that displays collected and accumulated trend data on a website screen using a tablet or PC via an IP network, such as a Wi-Fi network.

Web Data Logger
Model: TR30-G
The Web Data Logger is an Internet-of-things (IoT) terminal incorporating versatile functions, including a remote monitoring function, data logging function, and event reporting function, available through a website screen.

Communication Adaptor
Model: GR8-EM
The Communication Adaptor converts Modbus Ethernet protocol into the RS-485 protocol, adds vice versa, and works with or without the DL8 Series or the Remote I/O R8 Series.

Temperature Controller
Model: TC10EM
The TC10EM Temperature Controller is of general-purpose type, equipped with a clear, large display that shows PV value characters at a height of 19.5 mm (0.77 inch).

The TC10NM model, which is half the size, is available as well.

Multi-channel, Mixed Signal Remote I/O R3 Series

For details, visit M-System’s website.

Specifications are subject to change without notice. When ordering, use the latest data sheets available at M-System web site: www.m-system.com

Your local representative:

www.m-system.com
info@m-system.co.jp
5-2-55, Minamitsumi, Nishinari-ku, Osaka 557-0063 JAPAN
Tel: +81(6)6659-8201 Fax: +81(6)6659-8510