

Industry: Animal Feeds

Products Used: Modular PLCs /// SCADA

Fish food production gets computer control

Trouw Aquaculture (A Nutreco Company) has awarded Mitsubishi Electric Systems Integration Partner company Datastor Systems, a contract to provide a computer based system to control Aquafeed production at its Invergordon factory.



Aquafeed is the production of fish feeds, and the new plant is for the production of high quality foods for salmon and trout, but also to produce feeds for coarse fish, flatfish and ornamental fish. The new system is specified to control main feed blending, mixing, and routing the finished products through to holding bins. The new control system also interfaces with the buildings ventilation extruders and includes connection to the packaging lines. The system also carries out control of pigment inclusion by calculating additions offset by the quantities naturally present in the bulk materials used.

Six on-plant industrial PC based terminals are located at key positions on the plant. These include batch tracking displays at each packing machine. Overall control of the plant is done by two Pentium PCs running Mitsubishi Electric's MX32 graphical Supervisory Control And Data Acquisition (SCADA) software. Other PCs are included for the supervisor, logistics office, plant manager and Quality Assurance. A dual redundant communications link connects management and production control to the group's BIVIS Millmaster system, allowing for real-time management data to be extracted from the production process.

Datastor's own 1:4 Intel hard disc based hardware supports the Mitsubishi Electric real-time process control and management software. This overcomes system limitations experienced by other manufacturers using PC based control software applied to production plants of this complexity.

The control software is networked to a number of Mitsubishi Electric modular AnS PLCs, which are distributed around the factory to provide plant digital and analogue input output circuits. Since the AnS PLC is modular and each CPU can control up to 2048 direct I/O it allows Trouw Aquaculture the ability to easily expand the system should they require it in the future.

Application story first released January 1998 by Mitsubishi Electric UK