



MOORING SYSTEM MANAGER – SAT-MSM

The need to provide a deeper understanding of the marine environment has transformed monitoring systems from a pure research function to an operational role. Today's mooring system managers require information products - not just data - and are constantly challenged with increasingly sophisticated sensor systems and demanding user requirements. Traditional observations, such as meteorological and physical parameters, have shifted to complex acoustical, optical, chemical and biological sensors. Satlantic's **Mooring System Manager (MSM)** has been designed with the requirements of today's mooring managers in mind.



The **Mooring System Manager (MSM)** is a highly configurable, user friendly, cost-effective solution to today's mooring system challenges. The system efficiently handles power, maximizes communication throughput, improves data management, and is modular in design to accommodate future instrument expansion.

A breakthrough solution from Satlantic puts unprecedented computing power to work addressing many of the traditional issues associated with remote monitoring. By linking powerful computing capability on the mooring itself, with a richly functional control station on shore, **MSM** enables mooring managers to:



- Extract data and create information in a rapid and cost effective manner.
- Store data in a structured format for easy distribution and analysis.
- Upload sensor control information, including sampling schedules remotely.
- Manage power automatically or manually.
- Incorporate complex sensors in routine monitoring programs.
- Monitor instrument package status from shore.
- Accommodate future instrument expansion.
- Easily configure different communication options.
- Write programs in standard programming languages for custom applications on the mooring.



MOORING SYSTEM MANAGER COMPONENTS

The MSM consists of three distinctive hardware/software components:

Data Acquisition Computer

The data acquisition computer is the standard hardware for Satlantic mooring systems. It consists of the following features:

- High performance 200 MHz 6x86 processor
- Scalable architecture
- 10 port serial I/O interfaces (RS-232/485)
- 16 switchable power channels
- Data acquisition throughput 500 Kbit/sec
- Ethernet sensor connect ability
- 1GB hard drive expandable
- Custom power supervisor

Mooring Acquisition Software

The mooring acquisition software controls mooring operation based on the configuration provided by the Mooring Control Manager (MCM). Features include:

- Acquires and timestamps sensor telemetry
- Manages power system to maximize efficiency
- Communicates with base station and/or stores data internally
- Operating system supports easy integration of 3rd party processing software
- New sensor drivers can be updated through the MCM
- System configurable and testable over cabled or wireless links

Mooring Control Manager

The mooring control manager provides control access to the mooring system manager and acts as a data collection point. Features include:

- Java based GUI application
- Easy configuration of node schedule
- Easy addition of new sensors using the generic device configuration manager
- Remote upload of drivers allows for new sensor installation by simply plugging it in to the mooring computer
- Data reception system for the node via various telecom options
- Direct connections to sensors on the mooring using Port Link
- Monitoring and control for real time system status and manual system control

For control of mooring networks or cabled observatories talk to Satlantic about our DACNet ocean observatory operating system.

Telecommunication Options

Communication to and from the mooring is possible through a range of telemetry options including:

- Two-way radio
- Wireless LAN
- Cellular networks
- Satellite systems
- Internet landline

Specifications may change without notice.