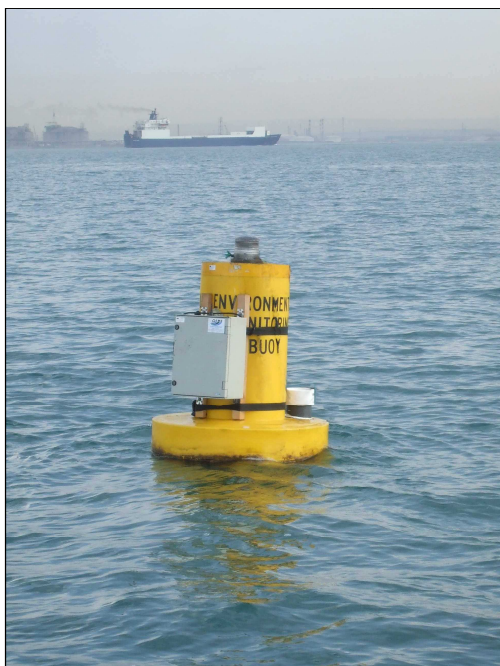


WORLD'S FIRST WEB-BASED DREDGE MONITORING SYSTEM AT FOS-SUR-MER, SOUTHERN FRANCE

In June 2007 Alphecca Systems commissioned a pair of real-time measurement buoys to provide environmental compliance monitoring during dredging operations at the port of Fos-sur-Mer in southern France. The region hosts an extensive aquaculture industry, and it was of utmost importance that there was minimal impact on shellfish stocks.



As a result of a partnership between the former UK-based GEMS Survey Limited and Alphecca Systems, the ARTEMeS real time environmental measurement system was selected by the Belgian company Dredging International to provide access to measurements of water quality parameters within seconds of their acquisition.

Data were measured using YSI 6600 water quality probes, and immediately transferred to Alphecca Systems' ARTEMeS server using the GSM phone network.

Once delivered to the server, data could be viewed as intelligent display components on a series of secure web pages.

Furthermore, in the event of suspended sediment concentrations exceeding a preset threshold an alert was automatically transmitted by SMS text message to a duty manager on site.



Environmental data acquisition for the global network

Examples of the displays that were available to the client are shown below.

Data Displays

Measurements were made available to the client as display components on web pages, controlled by a relational database central to the ARTEMeS server.

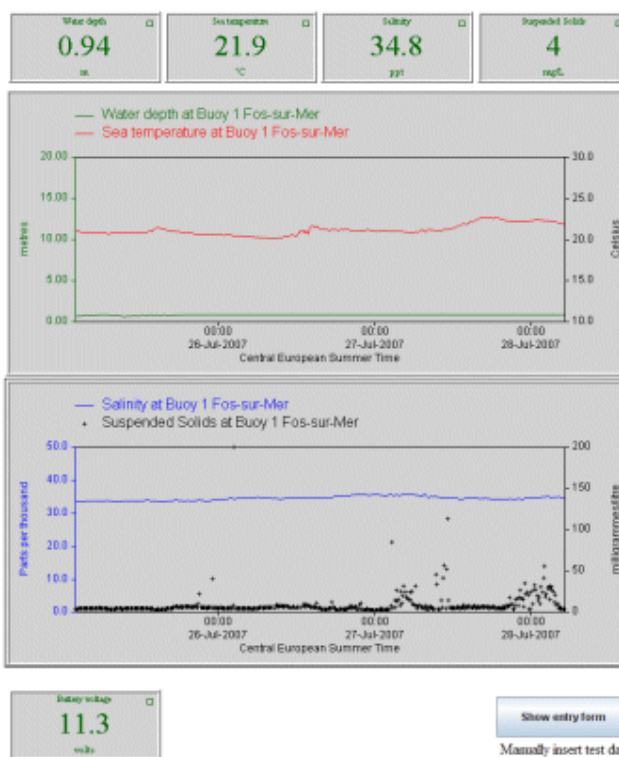
All ARTEMeS displays are interactive so that scales can be changed and details examined by simple mouse clicks.

Data from [Buoy 1](#) (Near Aquaculture beds)
Data from [Buoy 2](#) (Close to dock wall)



Use [Download](#) program to transfer data to your local computer.

Spatial value display



Time series display

SMS Threshold Alerts

The ARTEMeS server may also be configured with regular data processing functions.

In this application a threshold alert was set up so that if the suspended sediment concentration exceeded 50mg/L an SMS message was automatically sent to the client.

The SMS text included a short history of measurements and information about the alert.



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