

## Remote Dolphin Whistle Detector

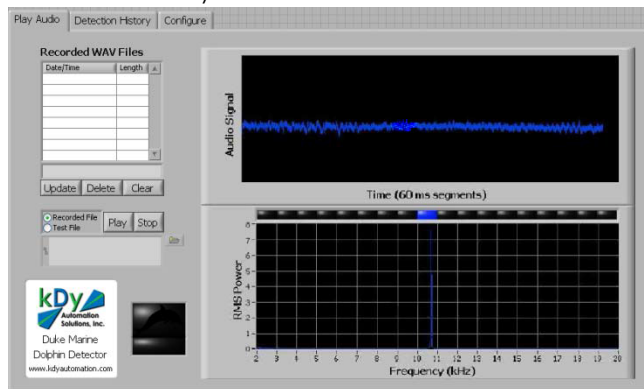


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- Operates as a stand-alone system in a remote location.
- Detects dolphin presence using hydrophone and notifies investigators via text message.
- Samples and records dolphin whistles and transmits audio files to remote server to permit listening and detailed acoustic analysis.
- Can be enabled and reconfigured remotely from a mobile phone using SMS messages.
- Controls based on National Instruments™ Compact RIO™ hardware platform.

## Overview

The Duke Marine Lab is interested in detecting the presence of dolphins in certain locations in North Carolina waters. Using the known acoustic characteristics of bottlenose dolphins whistles along with National Instruments™ Compact RIO™ running custom kDy software, the Marine Lab is able to “listen” for dolphins on a 24 x 7 basis. Investigators are notified via SMS messages that a detection has occurred, and can then securely retrieve and listen to the actual recorded sound from any internet-connected PC.



## Remote Control

All system parameters can be reconfigured via simple SMS messages sent to the controller from a mobile phone. This is particularly important as the system is deployed far from land and not readily accessible.

## Hardware Platform

National Instruments™ Compact RIO™ was employed along with an SMS module™ to allow low-power, stand alone remote operation with connectivity.