

# **The Use of an On-line Monitoring System to Automate the Data Collection of Chlorine Detecting Devices Meant for Ship Ballasts.**

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## **Abstract**

The ballast of cargo ships takes on water for the purpose of balance and stability. This water is treated with chlorine as a biocide to kill any microorganisms inside. The levels of chlorine need to be constantly monitored to lower the risk of transporting invasive species or polluting the water when the ballast water is removed. This experiment will use a program called LabVIEW to automate data collection from two chlorine detecting devices (SSR-EX & CLX) on the same fluid system. The program will record the electrical signal and from there that signal can be converted to concentration. The SSR-EX required several more electrical connections to be made and the initial set-up for this instrument was far more complicated. Both visual and automated data was collected with the CLX. The automated data was able to provide constant data points and show how the concentration was changed over the course of the test.

