

# Proposal for Hydrodynamic Uncertainty in Oil Spill Modeling based on GIS

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## Instruction

The project develops a method to provide automatic sequencing of multiple hydrodynamic models and provides for automated analysis of model forecast uncertainty. The key to success of the proposed project is an automated sequencing of hydrodynamic models that enables 12 models to be simultaneously running on a single multi-processor workstation. After the model on CPU-1 has started running, new wind and tide observations become available. To make use of this data, a new model is started on CPU-2 beginning with the last diagnostic model results. Therefore, to gain the wind and tide data from the gages' observations become the key point of the start.

## Objective

To create a geodatabase that can hold all of the wind and tide data from the gages and make graph to compare the reliability of these data from the diagnostic model result.

## Plan and Method

Firstly, there must be some data form observation. Through using WebGIS, I may collect the data I want and then, I could create a geodatabase in ArcGIS to analysis the reliability of these data from each of the gages. Finally, I could add these data into the sequencing models in order to run to forecast uncertainty.

## Problem

There might be some problem when I try to find some proper data which could be added into the ArcGIS smoothly from the Internet.