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| Boston University |
| ESME Workbench 2011 |
| User Guide |

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# Introduction

This document describes the purpose, use, and appearance of ESME Workbench 2011. This software product integrates components of the Naval Underseas Warfare Center (NUWC), Biomimetica, and associated models into the One Navy Model (ONM) to model the Effects of Sound on the Marine Environment (ESME).

## The One Navy Model

The ONM is a collection of discrete software products written by Biomimetica, BU, NUWC, and others. It does stuff.

## The Team

BU, NUWC, Biomimetica, … ?

## The Purpose

Let’s be nicer to whales. They never hurt nobody.

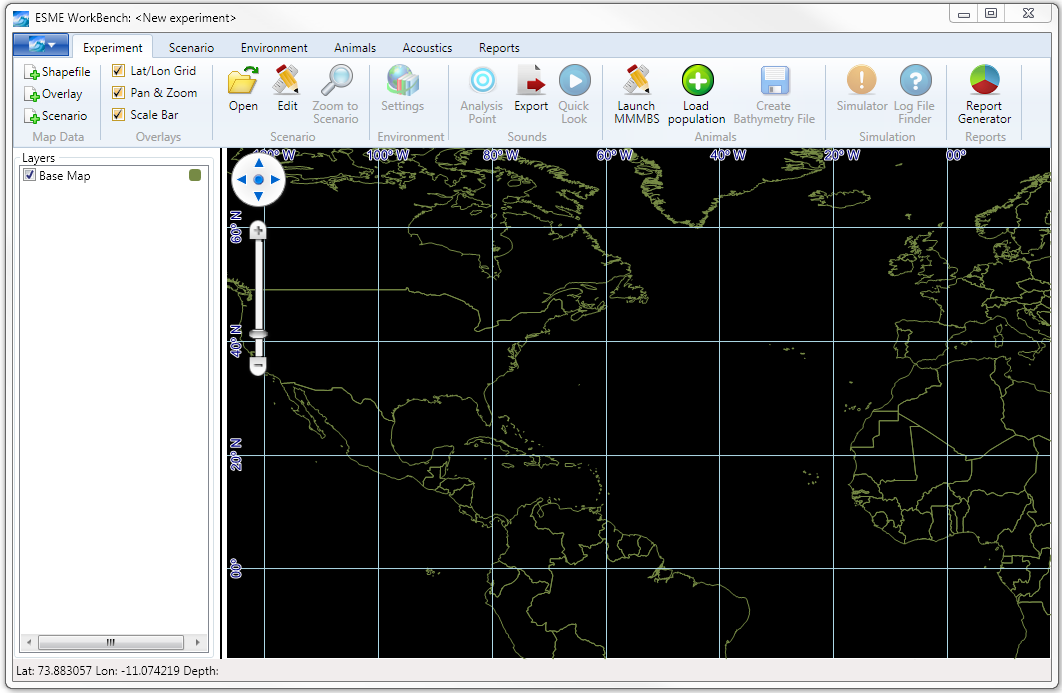
## The Purpose of This Document

Everyone should know how to run a full simulation at some level. Let’s instruct them.

# ESME Workbench: User Interface Overview

ESME Workbench is intended to be an intuitive primary user interface to the ONM. From its main screen, users can complete all the steps necessary to run a full simulation, stopping and restarting at any point to modify parameters, view environmental information, or do any other task required before a simulation is fully run.

The Workbench Main Screen is pictured below:



The Workbench has three main areas:

1. The **Ribbon Control**, highlighted in red, contains buttons and other tools to load, save, and configure experiment data. For example, Scenario Files can be loaded here.
2. The **Layer List**, highlighted in blue, contains a list of experiment data that is already loaded, and allows its manipulation. For example, Analysis Points, once created, can be manipulated here.
3. The **Map** , highlighted in green, contains a graphical display of data for users to make sense of their experiments.

Each area is described more fully in the following sections.

## The Ribbon Control

## The Layer List

## The Map

# Workflow: Common Task Walkthroughs

## Installation

## Configuration

## Building a Scenario

## Loading a Scenario

## Extracting Environmental Data

## Determining Environmental Boundaries: Quick Looks

## Calculating Transmission Losses: Analysis Points

## Defining Animal Model Populations

## Modeling Sound Exposure of Animals

## Post-Processing Simulation Data

## A Full Simulation: Flowchart

# API