Read Me:

Model Name: DM-18_ Harbor_U-Mask_LPT_Model

Objective: Use EFDC+ Explorer (EE) and EFDC+ to simulate Lagrangian particle tracking through a U-shaped harbor.

Model Grid: 3,824 horizontal grid cells in and 5 vertical layers.

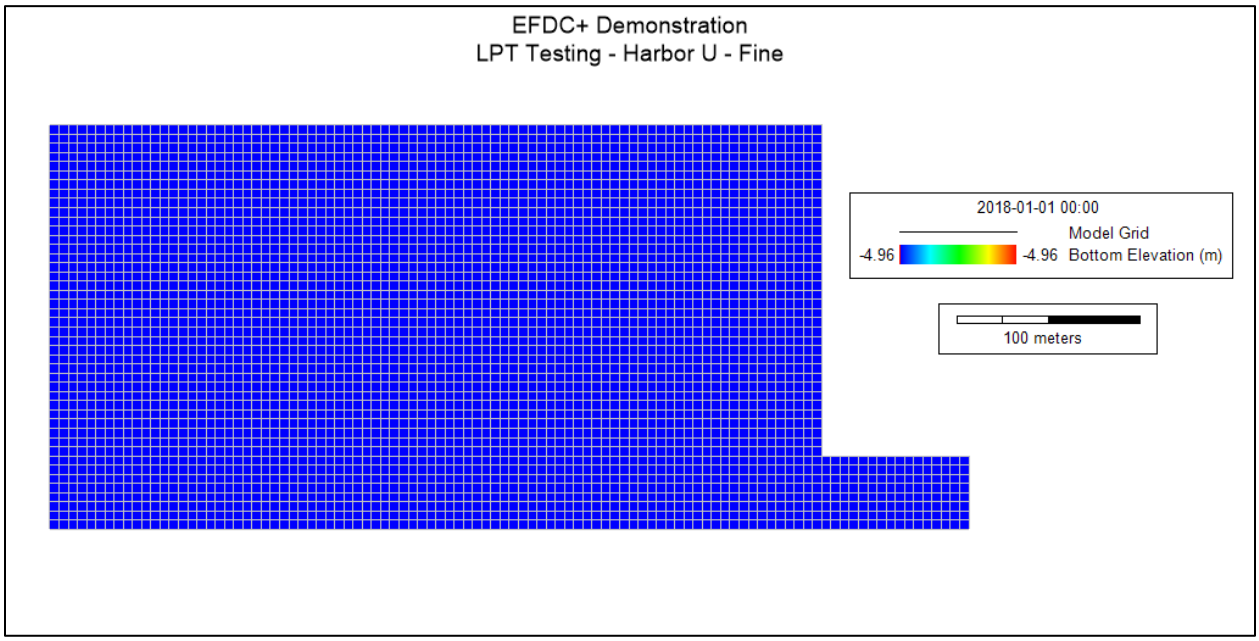

Figure 1 Model Domain of DM-18_ Harbor_U-Mask_LPT.

Folder Structure:

Data: This folder contains data that can be used with the model. These data can be measured data or output from model or derived from analytical equations.

Model: EFDC model that can be loaded in EE to pre- and post-process.

- NoRandom_Slippage Model: without random walk component to particle movement
- Random_NoSlippage Model: add the random walk component to particle movement

Test_record file: This file is just a record file that informs which EFDC+ executable was used to run the model.

Modules Activated: Hydrodynamics, Lagrangian particle tracking (LPT), dye for three models, one random and one non-random movement of cells, and one with wall slippage and one without.

Descriptions: This model simulates the movement of particles around a baffled tank. It is designed to demonstrate horizontal and vertical movement of the particles that are released from a region defined by a polygon.

Disclaimer: The model is provided to our users to demonstrate that EFDC_Explorer and EFDC+ can be used to better understand how to build this kind of model. The model is running as expected; however shouldn't be considered final as the model can be modified / refined to obtain improved results.

Files in Data Folder:

- EFDC_DSI Lagrangian Particle Tracking (2009_06_20).pdf
- LPT_Zone_G1.p2d

Model results:

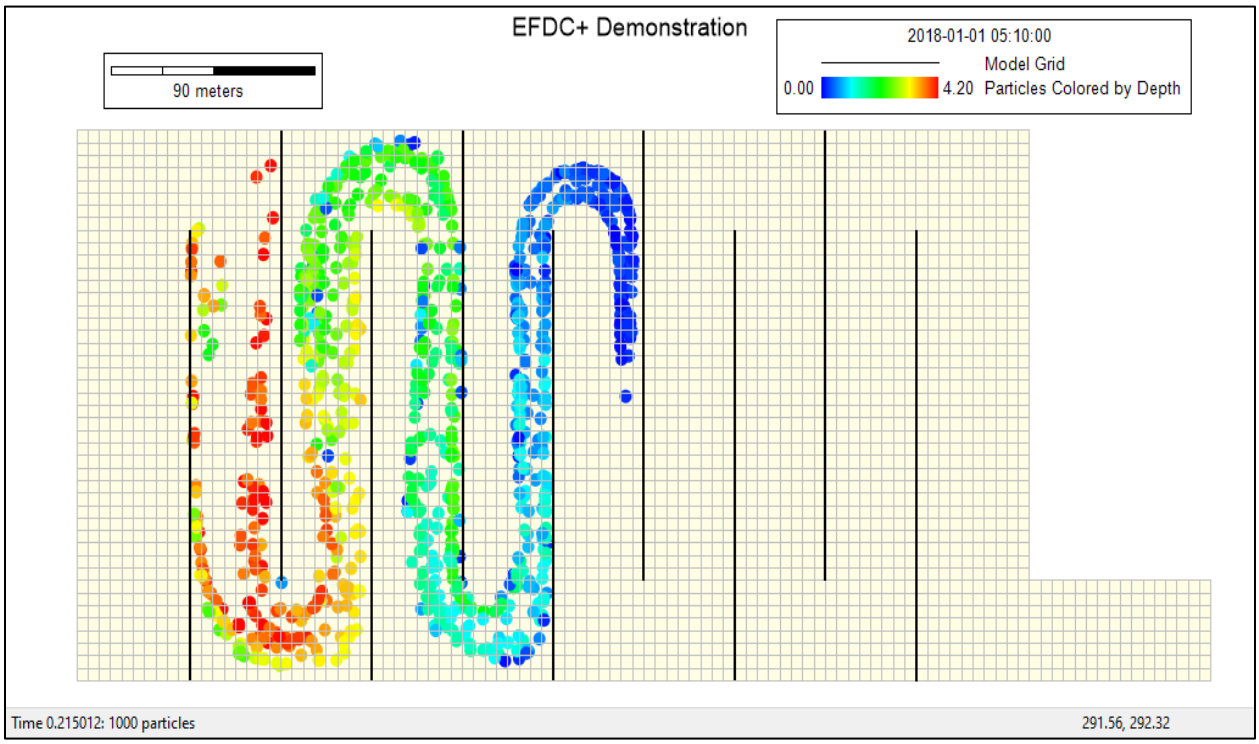

Figure 2 Particle release in the model domain.