

# 東京湾における生態リスク評価モデルの開発

## － Windows<sup>®</sup> Version 1.1 －

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### Abstract

This study involved the development of a Windows<sup>®</sup> compatible model that is a simple exposure forecasting system that predicts environmental concentrations of specific chemicals in specific marine areas. The model was used to evaluate the exposure of marine organisms to an antifoulant chemical in Tokyo Bay. These results were then used in a risk assessment study.

In addition, using existing data, a calculation (distribution of current, temperature, salinity, plankton and detritus concentration) for Tokyo Bay, over four seasons, was carried out using a three-dimensional flow model and an ecosystem model. The calculation results for each season was stored in a database, and then combined with a chemical fate-prediction model for marine areas. This model can be adapted for operation in Windows<sup>®</sup> with a Graphic User Interface (GUI) so that it is easy to use by other operators. With a simple system to input parameters, this prototype modeling system enabled detailed prediction of environmental concentrations of TBT in Tokyo Bay and was used in a risk assessment for several species of marine organisms exposed to those TBT concentrations.