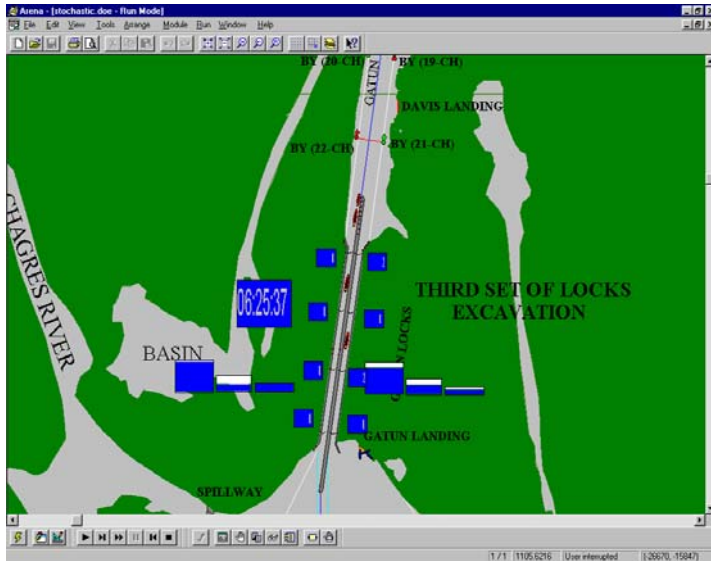
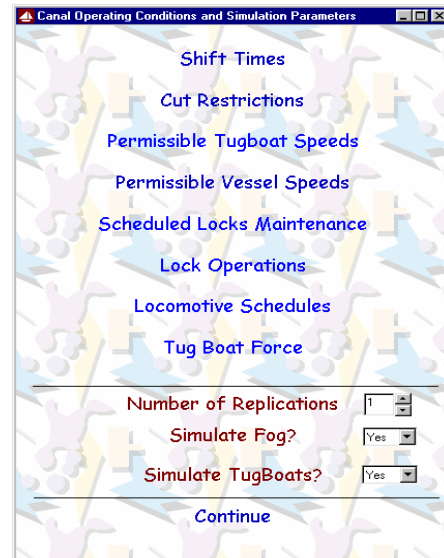


## Panama Canal Simulation Model



*PCSM Animation*



*Executive Shell*

**Client Name:** Panama Canal Commission

**Date Started:** October 1996

**Date Completed:** August 1999

In 1996, The Panama Canal Commission (PCC) contracted TransSolutions to develop a tool to evaluate the impact of pilot work force rules, pilot availability, Canal operating policies, Canal restrictions, and changing vessel demand on Canal operations. This tool, the Panama Canal Simulation Model (PCSM), combines simulation with animation, database applications, a graphical user interface, and an automated report generator.

PCSM was developed as a turn-key system that could to be used directly by PCC personnel. PCSM allows PCC planners to define and evaluate new scenarios using a scenario builder interface. Evaluations can be performed using historical transit data or new traffic forecasts. These new forecasts can be generated using the Vessel Demand Forecast features of PCSM. All of the results are automatically stored in a database and can be viewed instantly using the integrated report features.

The PCC has used the model extensively to answer questions related to Canal pilot issues and pilot working conditions for the past eighteen months. Reports generated from PCSM have been routinely used by PCC planners to make recommendations to PCC Senior Management regarding proposed changes in pilot working conditions. To date, approximately 240 different scenarios have been studied. Before PCSM was developed, the PCC management specialists manually evaluated pilot working conditions. For the scenarios already evaluated, the manpower savings as a result of using PCSM is estimated to be between 50 to 70 man-years.