

“WinModel” – a Model Integration, Management, and Visualization Toolbox

LimnoTech has developed the “WinModel” application across a series of surface water modeling projects to provide an integrated collection of model management, visualization, and linkage tools. WinModel, which is programmed in Visual Basic 6, provides a wide range of features and capabilities across multiple surface water and watershed modeling packages. Visualization tools are available for EFDC, WASP5, HSPF, RCA, ECOMSED, FEQ, and BLTM/DAFLOW. Comprehensive pre-processing capabilities are available for WASP5, RCA, FEQ, and BLTM/DAFLOW via supporting Microsoft Access databases and Excel spreadsheets. Linkages between WASP5-FEQ, BLTM-DAFLOW, EFDC-RCA are also supported. Visualization capabilities available for all supported models include spatial and temporal profiles and animations, model-data comparisons, cumulative frequency distributions, one-to-one plots, mass balance diagrams, and map-based visualizations. In addition, WinModel provides flexible options for processing and visualizing model results for compliance with site-specific water quality standards. The WinModel toolbox has undergone rigorous testing and is being further developed through the integration of additional models and new visualization features. The WinModel application significantly improves the overall efficiency and accuracy of model development, calibration, and application tasks, including streamlined management of multiple simulations and scenarios. Furthermore, this toolbox serves a valuable role as a communication and education tool for client and stakeholder groups.

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