

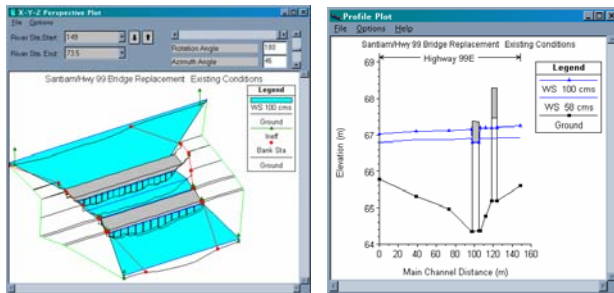


HEC-RAS River Analysis System Training Courses

As recognized experts in the application of hydrologic and hydraulic computer models, WEST Consultants, Inc. routinely offers training courses on a national and international basis to government agencies and private industry organizations. These services include training courses on the use of the U.S. Army Corps of Engineers Hydrologic Engineering Center's (HEC) River Analysis System (HEC-RAS).

WEST have provided half-day to five-day short courses in both steady and unsteady flow applications for such organizations as: the American Society of Civil Engineers (ASCE), the National Highway Institute, various U.S. Army Corps of Engineer Districts, Counties, State Departments of Transportation across the nation, the U.S. Forest Service, the International Erosion Control Association (IECA), and the Floodplain Management Association (FMA). The classes have included both our standard 3-day courses and well as customizations to meet the client's needs. The training courses have been conducted in both English and Spanish.

WEST's instructors all have extensive application experience with HEC-RAS. Some have also worked for the U.S. Army Corps of Engineers including the Hydrologic Engineering Center where the model is developed.



HEC-RAS Introductory Course. WEST's intensive, hands-on, seminar and computer workshop provides practical training in basic steady flow modeling. Participants gain experience constructing RAS models, including developing bridge geometry and performing floodplain analyses. Lectures also discuss modeling culverts and modeling techniques.

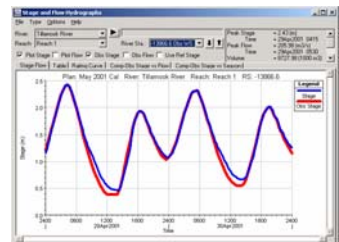
HEC-RAS for Unsteady Flow Applications Course. WEST's advanced training course provides comprehensive instruction and hands-on experience in how to use RAS for modeling unsteady flow conditions. Lectures discuss the intricacies of constructing unsteady flow models, and steps and model features for developing a stable and calibrated simulation. Additional presentations provide guidance on modeling inline and lateral structures (e.g. levees), bridges, and storage areas. Detailed workshops related to the lectures provide application experience in using the program.



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