

HYDRAULIC MODELING TRAINING The Paradigm Shift – IDModeling, Inc.

If a man empties his purse into his head, no man can take it away from him. An investment in knowledge always pays the best interest.”

- Benjamin Franklin (1706-1790)

“Education is not received. It is achieved.”

- Unknown Source

Hydraulic Model knowledge and use is becoming a differentiator in a utility’s success. More utilities are requiring a model, not just for regulatory requirements, but also for Master Plan, CIP, energy and planning studies. The learning curve varies within each utility and is dependent on the software and opportunities available to learn, however, traditional training methods are continued to be utilized where there is generally once-a-year training, non-specific content, and lecture-type setting, with little to no accountability for the student.

Meanwhile, the most effective time to learn anything is when there is an immediate and important need to know. The most efficient training is task specific. And the most effortless way to learn is informal, interactive, and collaborative training where there is accountability established within the curriculum. Below is a summary of the ‘then and now’ of hydraulic model software training.

The Old Way:

What are the challenges of traditional hydraulic model training?

- **Training choices are limited.** – Offsite training incurs prohibitive costs for students, business travel, and lost productivity. Implementation of an enterprise-level LMS (learning management system) requires a huge investment in both content and infrastructure. Online classes may reduce costs, but none of these alternatives address the biggest problem: *People just don’t learn this way as there is no built-in mechanisms to encourage students to retain the knowledge and use what they*

have learned.

- **‘Just in case’ Training.** – Almost all training programs teach a particular set of facts ‘just in case’ students might need the information. Organized training, including self-paced courses, delivers generalized information about how to accomplish a task or how to use a tool, but there is no context and little task-specific, real-world application.
- **Little to No Accountability.** – The student walks out of the training course and leaves their knowledge at the door has been the trend for the past 20 years of traditional modeling training. What is in place to encourage the student to retain the knowledge and continue to learn?
- **Too Expensive to Train** – Hydraulic Modeling Training is a challenging issue for utilities as it is sometimes viewed as just too expensive to train, hire, and develop good modelers. Unfortunately, this problem can’t be avoided. Too often, firms that invest in model implementations undermine their own ROI by vastly neglecting team training and end-user training. Companies can save thousands with hydraulic model training, which enables employees to get up to speed magnitude of times faster.

The Paradigm Shift:

What are some new ways of thinking about hydraulic model training?

- **A Customized Experience** – The practical solution, customized training sessions, happens when modelers have a situation that they want to be trained on, making it easier for them to place the learning opportunity within a practical context, within their ‘need to get done’ tasks. This is the moment when modelers’ motivation to learn is at its peak ... when they can maximize understanding by applying it to a existing project or task ... and when they stay within the workplace, maintaining productivity. Custom examples using real data allow the student to relate to their system. Custom workflows and manuals provide living documentation that is familiar to the modeler.

- **‘Just in time’ Training.** – In contrast to ‘just in case’ training, people learn best when they get training ‘just in time,’ when they can benefit from their immediate need to learn and apply a specific feature or tool.
- **Accountability of the Students.** – There is a need to have accountability inherent in the training program. There are varying levels of applying accountability in training from testing at the end of the course to having the student actually teach his peers the concepts that he/she have learned. An example of applying accountability is to develop a training program where each month, a modeling “problem” is introduced where the student(s) develop their method of solving the problem and present it to the group. In essence, the student will be “teaching” their methodology that they developed. Incidentally, this is found to be the optimal way of retaining knowledge - by teaching (conveying the lessons learned) to a group of one’s peers.
- **More Effective and More Cost-effective.** – By providing sequenced short 2-4 hour blocks of on-line training vs. 3-5 days of onsite or offsite training is more cost effective. These sequenced training provides the structure to efficiently grow the skills needed to have complete confidence in applying the model.

Adding customization, accountability, true living documentation, and ease-of-access provides a richer training experience that promotes knowledge retention and assists in moving projects forward at the same time.

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About IDModeling Training:

Essential to the performance of your organization, is the ability to understand the concepts and tools applied to a project. IDModeling is pleased to provide training services in both hydraulic model development and hydraulic model software applications.

AN EXPERIENCED PERSPECTIVE

IDModeling staff has trained over 1,000 engineers across the country, including Directors, Project Managers, Staff Engineers, GIS Technicians, and Operators from some of the nations largest Utilities

and Consulting Firms. IDModeling staff trains from the project perspective and emphasizes critical applications of the software and time-saving techniques to benefit the project up-front and establish a base-foundation for the employee to build-on through continued project work.

FOR YOUR CONVENIENCE

IDModeling will work with your staff and IT department to engage on-line and on-site training courses, to fit your budget, timing, staff schedules, and custom project needs. We are experienced in training protocol including training room needs, use of hands-on exercises for maximum retention, training time-management, and communication via email or FTP for necessary file-exercise transfers to promote seamless training preparations. Our goal is to bring the training to you, with minimal effort and maximum return.

TRAINING FOR ANYONE

IDModeling provides various levels of model training, from beginning to advanced, and enjoy working with all levels of staff to see a benefit to your operations and project outcomes. We have delineated courses in a manner which we can use out-of-the box or efficiently customize based on our client’s requirements. We also welcome suggestions to our approach and remain flexible to provide customized agendas to fit your specific needs.

About IDModeling:

IDModeling is a specialized Engineering Technology Company, employing advanced hydraulic modeling applications to enable water/wastewater utilities to upgrade and maintain aging infrastructure, reduce energy and carbon emissions, improve water quality, and comply with mandatory government environmental, health and safety regulations. IDModeling delivers consulting services and analysis tools, focusing on model construction, calibration, GIS/SCADA integration, infrastructure planning, and customized training & support. Bringing a customer-first approach, IDModeling works with utilities and consultants to help satisfy SBE, MBE, and DBE requirements. IDModeling currently has regional office locations in Pasadena-CA, Irvine-CA, Tacoma-WA, Centennial-CO, Albuquerque-NM, Tampa-FL, and Wakefield-RI. Visit www.idmodeling.com.