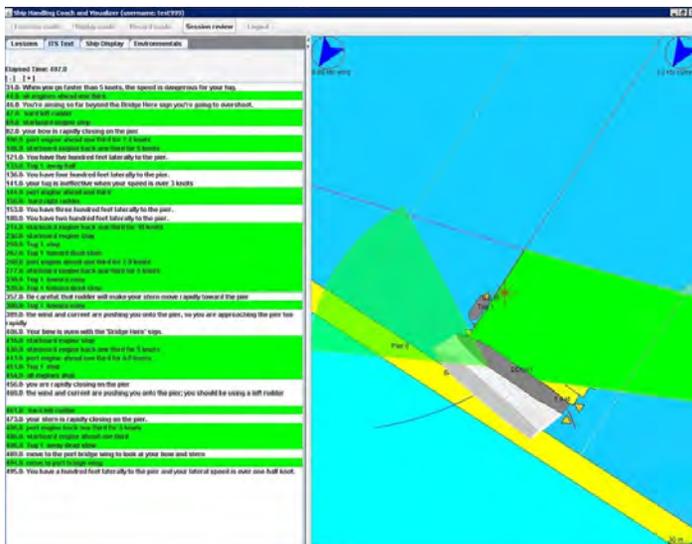
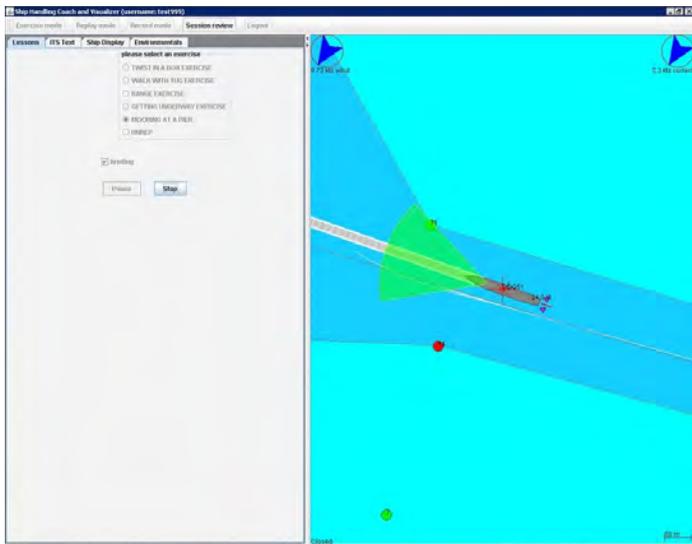


Conning Officer Virtual Environment – Intelligent Tutor System



The Conning Officer Virtual Environment – Intelligent Tutor System (COVE-ITS) is an artificially intelligent tutoring system capable of performing some of an experienced human instructor’s role and may enable a reduction in manpower costs by helping students overcome common and predictable problems during simulation-based training. COVE-ITS is an Office of Naval Research-supported Research and Development (R&D) effort developed by Stanford University and the University of California at Los Angeles. Another addition to the COVE family of training systems, it enhances an instructor’s ability to teach shiphandling students at the Surface Warfare Officers School.

COVE-ITS also helps students by providing guidance in basic ship handling skills required for (1) Getting Underway, (2) Transiting a Harbor, (3) Mooring to a Pier, and (4) Underway Replenishment (UNREP). The COVE-ITS detects both process (observation of visual cues) and performance (correct orders at the correct time) as student Conning Officers conduct a briefed evolution in the COVE shiphandling simulator. The COVE-ITS measures the student’s proficiency and identifies performance problems. The program can also give students advice before a particular shiphandling problem becomes unmanageable – but not before the student has a chance to see the adverse effects of an error.

This system is now being evaluated at the Surface Warfare Officers School (SWOS). Data analyzed to date show no differences in performance between students instructed by COVE-ITS and those taught by instructors, either on instructor scoring or on behavioral measures. Additional evaluation will test the effectiveness of the COVE-ITS when one instructor supervises two or three COVE stations. Plans for further development include expansion to different levels of students and to a practice-only mode.



For further information on this exhibit, or business opportunities with ONR please contact the Training S&T Program Officer, Human & Bioengineered Division, Warfighter Performance Department, Office of Naval Research at 703-696-4501, or by mail at Office of Naval Research, 875 N. Randolph St., Arlington, VA 22203.

