Oak Ridge Associated Universities, Inc. (ORAU) and Interactive Presentation Systems, Inc. (IPS) will collaborate to combine ORAU’s training and course development expertise with IPS’s interactive presentation products.

IPS has developed, patented, and is commercially marketing an improved interactive delivery platform called the TAP screen. ORAU will combine the TAP screen and its expertise in training and materials to gain understanding, concerning combining federally-developed training materials and these presentation technologies to improve federal and private training; develop and market new training delivery platforms; define site requirements for use of the delivery systems; discuss ways to optimize the capabilities of the delivery platforms; and assess the feasibility of incorporating the use of CD-ROM with the TAP training purposes. This should result in improved understanding for developing and delivering training to meet performance and cost effectiveness needs of both federal and private organizations.

Training personnel from selected DOE facilities will participate in planning sessions to identify training programs that lend themselves to the use of interactive presentation technologies. Beta test sites to be used for the modified training packages will be provided by these personnel.

Existing training materials employed by ORAU using different media, will be adapted with the assistance of IPS to a form suitable for use with the TAP platform. IPS will also advise ORAU about state-of-the-art presentation techniques and will, through the planning sessions and beta testing process, share this expertise with the DOE system through the TRADE network that ORAU manages for nine program offices within DOE headquarters.

The work will be completed in three phases and each phase will include deliverables that have been agreed to by ORAU and IPS such as a Feasibility Assessment Report, a prototype TRADE/IPS training program using the TAP platform, results from the beta test process, milestones for modification of additional training packages, and commercial training programs using ORAU adapted training packages.
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In June 1990 Interactive Presentation Systems (IPS), a small business located in Oak Ridge, TN introduced its TAP screen, a transparent touch screen add-on device for LCD projection panels. The TAP screen’s controller interfaces to the computer via a standard RS-232 port and the terminate and stay resident software program allows the TAP screen to be used while other software programs are running.

The President of IPS approached Oak Ridge Associated Universities about the possibility of using the TAP screen as an interactive delivery platform for technical training purposes. In its 48 year history, ORAU has managed education and training programs for DOE and other federal agencies resulting in extensive expertise and capabilities in all aspects of the training environment. Further, ORAU manages a national network of training personnel from all DOE locations and, in this capacity, develops and collects hundreds of technical training resources. ORAU and IPS agreed to evaluate the feasibility of using the TAP screen in an interactive training environment and investigating the possibility of modifying existing training software to determine whether it could be delivered successfully on the TAP screen. The cooperative effort was designed to address several issues: (1) whether the delivery system would increase an instructor’s ability to interact directly with a screen being projected to a large group, (2) the potential for distributed training over long distances since the TAP screen had the capability to transmit images over standard phone lines and (3) the potential integration of computer-based training software as presently written by DOE sites with the TAP screen.

ORAU instructional technologists and computer-based training designers evaluated the TAP screen and offered the IPS President suggestions associated with human factors design considerations and expanding the screen’s usefulness in a large group environment. ORAU staff further worked with the IPS President to test existing and planned features of the TAP screen to determine their possible usefulness for training delivery, selecting instructional approaches, documenting class input during training delivery and completing records of presentation modules. In addition, ORAU coordinated a meeting with the IPS President and training managers from several DOE facilities (Westinghouse Savannah River Company, Martin Marietta Energy Systems, REECo, Westinghouse Hanford Company, EG&G-Albuquerque, Sandia National Laboratories and Los Alamos National Laboratory) to demonstrate the TAP screen and discuss its potential for interactive training before large groups and in distributed settings. The training managers were generally positive, particularly with respect to the low cost of the hardware and software components of the
They provided the IPS President with additional suggestions for making the TAP screen more useful in a training environment.

Several computer-based training packages in use at the DOE facilities represented were considered as possible demonstration efforts to assess the usefulness of marketing the TAP screen together with existing training software. ORAU personnel and DOE site training managers agreed that the first training packages should address mandated training in environment, safety and health, such as that required by 20 CFR 1910.120, the Occupational Health and Safety Administration rule that implements Title I of the Superfund Amendments and Reauthorization Act (this criterion was selected based on the perceived marketability of a combined training module with this content/TAP screen package). Subsequent efforts to transfer several software packages developed by ORAU were unsuccessful due to technical difficulties associated with transferring text and graphics developed on Macintosh and other presentation software to the IPS system. Although these difficulties were not insurmountable, IPS and ORAU came to the conclusion that a sizeable amount of software engineering time would be required to resolve them and this time required substantially more resources than those available through the cooperative research and development agreement.

As a result of the cooperative effort, the IPS President determined that he needed to spend his time finding investment funding sufficient to manufacture and market his TAP screen, initially, for purposes other than training (primarily long-distance teleconferencing and distributed presentations). He has subsequently set up working relationships with Lanier Worldwide Company, Philips Consumer Electronics and South Central Bell and has completed two unsuccessful applications for SBIR Phase I grants; he continues to seek capital investment opportunities.

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