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Two Suppliers, Two Solutions

Sometimes a solution is closer than you think.

By Debra Milbrandt Campbell

The Company/The Supplier



Advanced Systems Technology, Inc.

Advanced Systems Technology, Inc. ∢••) www.astcorp.com

Using In-house Talent to the Fullest

Advanced Systems Technology Inc. is a systems and software engineering firm that has specialized in information technology and the development of computer-based instruction and training for 20 years. One lesson of their experience is the identification of four recurring problems in the development of courseware for interactive multimedia instruction. **Problem 1.** A separation exists between ISD process management and project management methodologies. Project management is often based on a required product delivery date rather than a realistic evaluation of the time and resources needed to accomplish specific tasks. Problem 2. There's a need for programming. Commercial off-the-shelf authoring systems often require users to have advanced programming skills. Problem 3. Nonstandardized processes misuse resources, leading to re-creation of design elements that already exist. Opportunities to reuse learning resources are often lost as new projects begin.

Problem 4. The lack of centrally located, easily accessible tools and information about a project creates havoc.

Introducing EPSS

Faced with those problems, AST developers and designers looked to in-house resources to solve them. An EPSS seemed to be the perfect answer to the development problems AST had identified.

Gloria Gery, in her book *Electronic Performance Support Systems*, defined an EPSS as "an integrated electronic environment that is available to and easily accessible by each employee and is structured to provide immediate, individualized online access to the full range of information, software, guidance, advice and assistance, data, images, tools, and assessment and monitoring systems to permit job performance with minimal support and intervention by others."

Performance support includes anything that helps employees perform work tasks. The purpose of an EPSS is to improve employee performance by reducing the number and complexity of required tasks, making job and task information sharable, and enabling project personnel to identify an appropriate course of action based on the current situation.

Allocating resources for an EPSS was anything but simple. AST production manager Dale Wheelis first broached the idea of using an EPSS in 1998. Wheelis had worked in the ISD field for several years after retiring from the Navy and was intrigued by the EPSS concept of bringing help to the desktop in the form of tools, information, examples, and tutorials. He envisioned making them available to AST personnel, government employees, and subject matter expert stakeholders using Web-based technologies.

First steps

Creating a schedule is one of the first steps in a new development project, so Wheelis began working on a project management tool. He approached AST's administrators with the idea of adopting an EPSS to help with training development. Although it was a struggle to articulate the requirements and to find resources in an over-stretched development team, Wheelis produced a prototype called Integrated Knowledge Elements, or iKe.

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17. I CERTIFY THAT ALL INFORMATION FURNISHED ABOVE IS TRUE AND COMPLETE: Marnee Beck, Circulation Manager September 30, 2004 "I did the detailed design/concept work, and [programmer] Blaine Roth brought iKe to life," said Wheelis. "I brought in others from AST for input on how things should be presented on a screen, or how things should be organized. Though the EPSS design process had begun, the struggle was far from over for Wheelis: "I was constantly selling the concept to gain acceptance of the end product. I was competing for resources to build it when not everyone agreed they wanted such a thing."

The first version of iKe was a project management tool. It addressed only one of the four challenges facing AST: combining ISD and management processes. In 1999, AST team leaders began using iKe's management capability for courseware development.

"It gave everybody ownership in the project timeline when they contributed to completion of tasks and milestones in the system," said Wheelis. "You could see when somebody was late, you could see when somebody was finished, and you could see where the project was going. The communications alone greatly improved our ISD team effectiveness."

The fledgling EPSS began to gain acceptance as AST personnel realized that it helped them and improved the development process.

First real test

iKe's first real test came when AST won a contract in 2001 that required the development of approximately 50 hours of instruction, with a deadline of five months. By that time, iKe had grown and now contained a storyboard utility (SBU), courseware development tools, tutorials, and job aids. The SBU allowed developers with no programming skills to create training software by entering data into Web-based forms and populating a database. The contract was accomplished on schedule, using existing AST resources. "That was when everything 'clicked," said Wheelis. "Without iKe, we couldn't have done it with our existing resources. We'd have needed additional employees, such as Authorware programmers, and it would have taken more than a year to complete." Customer reviews were also accomplished on schedule.

Now in its third version, iKe has solved all four development problems encountered by AST.

First. iKe connects the ISD process and project management by organizing and maintaining all project management details.

Second. The tool eliminates the need for programming, which allows developers to produce final courseware without having to program.

Third. Repeatable development processes and tasks are standardized by the application of job aids, checklists, templates, and tutorials embedded in task assignments. That encourages reuse and reduces development costs.

Fourth. Stakeholders can rapidly access up-to-date project information from a central Web location. That enables collaboration among virtual development teams located at several sites and builds buy-in from the customer team.

iKe provides the additional bonus of producing SCORM-conformant and 508-compliant training. Government clients require this, and it's becoming more common in commercial training development.

Wheelis is currently the director of training development at AST. He and iKe have proven that companies don't always have to look for outside help to solve inhouse problems. Sometimes the answer lies in encouraging and supporting new ideas.

Debra M. Campbell is a quality assurance specialist at Advanced Systems Technology, a systems and software engineering firm specializing in information technology and the development of computer-based instruction and training. Military leaders throughout the ages have faced a common problem: knowing where their troops are, where they're heading, and reporting their progress in the field. Until the last few centuries, they relied on rough maps to identify troop locations and on runners, dogs, and carrier pigeons to communicate those locations and report progress to commanders. Eventually, better maps, compasses, sextants, and other navigational tools helped leaders pinpoint physical locations more accurately. The telegraph and the radio speeded up communication. Today, global positioning systems help military leaders report the precise, real-time locations and progress of individual soldiers and units.

For those managing learning and development implementations, it's also important to know where people are, where they're heading, and the progress they're making. Most training professionals would agree that effective GPSlike tools to manage this problem would be welcomed.

So, how would such tools help drive more successful implementations? Many organizations find they aren't receiving the full value they expect or could achieve from their training investments. They spend significant amounts of money delivering outstanding training events, only to have training leaders and managers quickly lose sight of the "troops" when the learning event is over.

What are their individual development plans? How are they progressing? How will they be held accountable for future learning results? And when an initiative involves tens, hundreds, or thousands of participants, how does a manager follow up and document the status and progress of individuals and teams in multiple posttraining activities?

Mapping Your Way to Better Implementations

By Robert Sherwin

After the Learning: Implementation

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The Product

ActionPlan Mapper

Just as important, how do participants stay focused on their own implementation plans? As the excitement of the training fades and participants run into the Monday morning realities of the production floor or call center, goals and progress on commitments made during the prior week's training can quickly be pushed aside. How do participants follow up on their own commitments and goals, maintain focus, and communicate progress?

Jack Zenger, co-founder and CEO of Zenger Folkman, a leadership research, development, and software company, recently discussed the importance of managing those critical activities that follow learning events:

"The most consistent criticism I've

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heard over the years is the failure of participants to go back to work and do what they had committed to do. It is what doesn't happen afterward that greatly concerns the people paying the bill. What had been 'top-of-mind' easily becomes 'out-of-mind.'"

Zenger says, "If there's one major fix we need to make, it is to improve dramatically the implementation of our programs. We must place more of our resources and creativity into this part of the learning and development process. The payoff will far exceed any other single thing we can do."

Internet technologies can now be used to help organizations map their training and development follow-up activities much more precisely. Zenger Folkman recently introduced a new Web-based tracking and communications tool developed to meet the needs of customers who want to increase the visibility and impact of posttraining implementation activities: ActionPlan Mapper.

The ActionPlan Mapper software helps managers and training professionals monitor and track the posttraining implementation goals, activities, and progress of participants—and document the results they achieve. The AP/M tool is also designed to help participants organize, communicate, and remain focused on their posttraining goals and follow-up actions. It assists managers and participants by automating the gathering and communication of information.

The AP/M tool makes four key requests of participants:

• describe both their goals and the specific developmental actions they intend to take

• define the timeframes within which they will complete their goals

• report back regularly with brief updates on their efforts and progress

• provide a quick results assessment when a goal is completed.

In addition, the AP/M tool provides managers and implementation leaders with measurement tools to

• view and assess the goals selected by participants

• monitor the plans and progress being made by individuals and groups

• evaluate the overall impact and results of training and development efforts.

AP/M was specifically designed to make it quick and easy for managers and training participants to use. As a Webdelivered application hosted on Zenger Folkman servers, users can access AP/M over the Web anytime, anywhere. All that is required is access to the Web and a Web browser.

Participants typically access AP/M immediately following a learning event. The system prompts users to add any new development goals and follow-up commitments coming out of the event. In addition to a description of the goal, AP/M also tracks a target completion date, an optional goal category (from categories determined by the implementation manager), and any supplementary notes the user might want to attach to the goal. AP/M then automatically tracks each goal and any subsequent modifications to it, and maintains version control over the modifications. Participants can add and begin tracking any number of goals and can modify their goals at any time. AP/M maintains a history of each modified version of a goal.

One of the significant benefits of using AP/M is the ability participants and their managers have to monitor and document goal status easily. Throughout an implementation period, participants are asked to briefly update their progress by responding to progress update questions. The implementation manager determines and communicates to participants how often the progress updates are desired (weekly, bi-weekly, or monthly). Whatever update frequency is selected, Zenger Folkman recommends that the progress update questions be few and quick to answer so that participants can communicate where they are in just a few minutes.

AP/M is configured out of the box to provide three predesigned quantitative and two qualitative questions to participants, but implementation managers can easily modify those questions and add other progress questions, as desired.

As another key benefit, AP/M helps participants remember to continuously provide their progress updates. At times pre-established by the implementation manager, AP/M will send automatic reminder emails to participants who haven't submitted their updates for a specific period. The reminder email timing could be the middle of each progress update period, several days before the end of the period, the day before the period ends, or all of the above. In all cases, a reminder email is sent only to those participants who haven't yet submitted an update.

The benefits from prompting for and gathering this implementation information are significant for organizational executives, managers, and implementation leaders. Through a variety of reports, leaders can view the progress and current status of individuals, groups, and rolled-up results across an organization. Managers can use the AP/M goal and progress information during coaching sessions and to ensure alignment with departmental or corporate goals and strategies. Leaders can be alerted when progress updates aren't being made and intervene when participation in follow-up activities and commitments lags. At the conclusion of a training or developmental implementation, leaders have well-documented results of what, when, and where development occurred.

Zenger Folkman's co-founder and president, Joe Folkman, observes that follow-up action by managers—any action—is a critical support step in getting results. Some of Folkman's recent research reveals dramatic differences in employee satisfaction levels between groups where follow-up occurred and groups where follow-up activities didn't happen. Moreover, Folkman points out that "it is well-documented that employees focus on what is being measured. We all know that. What we often forget is that the excitement and enthusiasm that results from a well-crafted training experience only goes so far."

Folkman says, "It's tough to expect change to come out of those events if participants enter right into the typical training implementation cycle: They leave with well-reasoned developmental goals, immediately have to face pressing job priorities on which they know they are being measured, then quickly realize that there will be no measurement of and little accountability for their posttraining commitments. Without structured follow up, the impact of the learning event is substantially diminished. Our AP/M solution is designed to support managers in driving those implementation activities and make learning stick."

Without question, focusing more on posttraining implementation activities will help training and development professionals leverage the impact of learning events. Fortunately, runners, compasses, and carrier pigeons are no longer required for military navigation. With new support tools like Zenger Folkman's ActionPlan Mapper, organizations are finding it easier to navigate their way to successful training results.

Robert Sherwin is chief operating officer of Zenger Folkman.