Thriving on Continuous Learning at Hewlett-Packard America's Software Manufacturing (ASM)

It's more than a strategy — it's their culture.

Lea A.P. Tonkin

What if you could turn on people's minds, transforming thoughts and unlocking creativity in ways that enhance individual and overall performance? Better yet, can you keep that innovative mind-spring wound up and ticking for years at a time? That might sound a bit fuzzy or flaky to the number-crunchers among us. And yet it is exactly this sort of thinking that created a continuous learning environment at Hewlett-Packard's (HP) America's Software Manufacturing (ASM) in Nashua, NH and continues to inspire measurable performance gains. ASM employees provide software for internal HP operations as well as for third party software developers and OEMs. Here’s how the HP folks figured out a way to make continuous improvement (CI) everybody’s business at ASM, and how this approach boosted their customer service and other performance standings.

Selected examples of ASM’s 2004CI activities are shown in the box, “ASM Activities/Improvements.”

Building a Continuous Learning/Improvement Culture

ASM employees' willingness to accept the notion of continuous learning and development as part of their job/role likely stems in part from the transitions and uncertainties they've experienced. Bob
DiGregorio, plant manager, said, "We started with Digital Equipment, then later a merger by Compaq, and now we are part of HP. We have moved through three very different corporate environments and cultures in a three-year period. Change proved to be the rule, not an exception, for all of us."

Although employees at the Nashua operation have practiced CI for some time, there's a major difference when it is integrated with continuous learning, according to DiGregorio. "The traditional CI approach was to ensure we kept up with changes and events," he said. "As we continued our focus on continuous learning, we adopted the notion that we need to move ahead of change by providing and creating readiness through learning and development, not just reacting to events. We looked at how a teaching hospital operates, what their work is, and how they learn as they treat patients, and how we can apply these concepts. We adopted the motto, 'The Work Will Teach Us.'"

Their 'ASM University' (or ASMU, an in-house resource — see the later description about ASMU), for example, is not just a program or series of programs, but symbolically represents a way of thinking about learning and how they can apply these "lessons" in day-to-day activities. "We believe that the way people think affects the way they behave, and in turn impacts our results," said DiGregorio. "We try every day, in every way, to enhance the quality of our thinking. The cumulative effect is that we are thriving on people's minds as they act and react in various situations."

**Team-Based, Focused on Overall Gains**

Continuous learning at ASM goes hand-in-hand with their teaming approach — a second critical element in their overall culture. "Everything we do is team-based," said Bob Dufresne, manufacturing/employee engagement manager. "Our philosophy and our activities, through teamwork, help everyone to understand our processes, from front to back. This enables us to merge operating and improving into our daily activities. We do not view ourselves as working in segmented functions within ASM. We share what we do with others because we are all part of ASM, and ultimately HP, in our pursuit of customer satisfaction. Basically, we

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**About Hewlett-Packard's (HP) America's Software Manufacturing (ASM) in Nashua, NH**

Software manufacturing and distribution is what 179 full-time employees and more than 250 "Q-Flex" just-in-time workers do at Hewlett-Packard's (HP) America's Software Manufacturing (ASM) facility in Nashua, NH. They provide software for internal HP operations as well as for third party software developers and OEMs. ASM supports more than 2600 products. The Nashua facility is approximately 182,000 sq. ft. ASM also encompasses a Fremont, CA plant.
live in organizations, but work in teams."

Employees are encouraged to participate in OLF (Operations Leadership Forum), which is a "town hall meeting" each Friday. Daily, weekly, and quarterly results are reviewed and discussed, and employees share specific improvements with others. These sessions reflect the operation’s value and recognition of CI and learning. CI's grassroots momentum is reflected in smaller, informal improvements that are a natural part of daily activities. "We do as much as we can that’s ‘quick and effective,’" Dufresne said.

**Targeting Specific Improvements**

Following on continuous learning/CI and team-based activities, a third key element in ASM’s successful operation is the alignment to their overarching goals. The corporate hierarchy of integrated goals and objectives was severely impacted as a result of the mergers. "We found ourselves ‘disconnected’ to the strategic framework of the various companies. As a result, we adopted the Malcolm Baldrige framework, which provided us a disciplined, adaptable, proven, and effective methodology to run our operation," DiGregorio said. "It was a significant milestone in our development."

ASM developed Managing for Results (MFR — see Figure 1) as a means to ensure continuing efforts on specific, needed improvements. "We put together a goal-specific integrated roadmap, calling out our

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**ASM’s MFR Program**

![ASM’s MFR Program](image)

**Figure 1.**
key initiatives and strategies each year, based on key ingredients or needs that come from our customers and corporate goals,” DiGregorio added.

MFR aligns strategies, goals, and metrics with customer-driven improvement activities. MFR clearly articulates to employees the impact that their individual activities and performance has on overall operating results. MFR provides a methodology and operating network for everyone. MFR teams are aligned with ASM’s overarching goals. Each team develops a set of Critical Success Factors, with stretch goals that create gaps used to trigger improvement activities. Individual as well as team knowledge and creativity power these improvement activities. Employees identify gaps, diagnose causes, and are empowered to make required changes for improvements.

ASM’s overarching goals are:

- **Loyal customers:** Associates strive to improve and sustain customer service supported by predictability, customer loyalty, customer site visit feedback, delivery, quality, and other factors.
- **Inspired people:** CI participation and performance plans for teams and individuals contribute to employee “inspiration.” Also important are recognition, learning effectiveness tracking, employee satisfaction (ASM has consistently exceeded corporate averages in all categories such as communications, teamwork, rewards and recognition, and development), leadership effectiveness (360-degree reviews, for example), effective communications, community/employee events, and other areas.
- **Best cost:** Asset management is carefully and continuously monitored. Among their measurables are inventory turns, freight cost, business system availability, resource utilization (effective use of people on a just-in-time [JIT] basis), capital cycle count, and spending.
- **Outstanding results:** Reflect day-by-day, all-out attention to operating results.

Visibility management is very important. Each area displays the major metrics and results they utilize to monitor their group’s performance, and also their tie into ASM’s overall metrics.

**Voice of the Customer**

Searching for even more effective ways to build their business, ASM listens to the “voice of their customers” through surveys, day-to-day contact, and formal business reviews. ASM has developed an effective process that allows customers the opportunity to provide timely feedback, suggestions, and enhancements.

ASM has set aggressive goals in the area of customer satisfaction/loyalty. Its goals and metrics target levels associated with benchmarked best-in-class companies.

Along with listening to the voice of their customers, ASM also participates in HP’s annual “Voice of the Workplace” surveys. “The results of this comprehensive survey provide us with much-needed information regarding what areas we need to address,” said DiGregorio. “This formal survey, in conjunction with ASM’s ongoing communications and feedback programs, ensures we are all in synch regarding expectations.”

**ASMU: Everyone's Learning**

ASMU is the Nashua operation’s employee development program. “ASMU is the method we use for the creation and ongoing management of knowledge capital within ASM,” said Dufresne. (See Figure 2.) Through ASMU, they want to develop and sustain knowledgeable, committed workers who can nimbly keep ASM on a world-class pathway. The program features learning modules designed to help employees meet current and future needs identified through corporate/customer/employee feedback loops. All employees are encouraged to consider courses that will help them build and develop the skills that will keep them not only current with their roles, but equally important, viable for future work, according to Dufresne.

Four learning levels offer employees the opportunity to start at the beginning (baseline) in any particular study area and progress through advanced, expert, and
then mastery levels of achievement. The ASMU "learning tracks" dovetail with MFR learnings and experience to match current and projected needs and address any training gaps that have been identified by the Learning Council.

Learning tracks for personal development and training and selected course offerings within them include:

- **Desktop Technology**: PC skills, PowerPoint, Excel, Meeting Tools, Super User Training
- **Problem Solving/CI**: Green Belt, data collection and analysis, Q-Basics (baseline quality training), FastJIT
- **Leadership**: ethics, coaching skills, negotiation skills, business writing
- **Customer, Operational, and Business Systems Knowledge**: HP Customer Connection, lead assessor training, basics of print, finance overview.

A Learning Council oversees ASMU and is composed of all levels in the organization. ASM has 64 internal ASMU “faculty” (employees trained in specific coursework) who develop and deliver the classes.

Employees informally add their suggestions for coursework that can help them progress in customer service and other areas. A formal, annual survey also draws comments on needed training.

“We believe that everyone here is a potential leader,” said Dufresne. “We all need customer, operational, and business systems knowledge. We ensure learning in areas to move the business forward, and we measure that progress.” Instructor and course performance are also measured.
More Learning, Improvement Tools

Trained in problem-solving, leadership, post-sale technologies, and other areas, ASM employees are assisted by Green Belt and Black Belt improvement specialists within their ranks. They are also armed with kaizen (fast-track improvement) techniques, and coached by managers who keep an eye on problem-solving progress, enabling everyone in the ASM operation to accept accountability for making day-by-day improvements. Ninety-two percent of their employees participated in CI activities during the past year.

Among the customer satisfaction and productivity-boosting tools employed at ASM are demand-driven execution (continuous flow toward customers, finding ways to slice response times); root cause analysis (eliminating problems through cross-functional activities); and MFR (as described earlier, it is customer-focused CI and problem-solving activities); and continuous learning through ASMU and other programs.

An added “tool” employed here is JIT staffing — called “Q-Flex.” The program aims to put trained people where and when they are needed, operating on a JIT basis. Approximately 225 employees work as needed on a part-time basis. They are valued as reliable and cost-effective contributors to first-rate customer service.

Leadership Edge

Leadership effectiveness among all employees gives ASM a competitive edge. "We use 360-degree feedback for measuring leadership performance," said Dufresne. "We all need to walk the talk, not asking people to make changes that we would not make ourselves. We ask people to be CEOs of their work areas." For example, ASM senior managers participate in the 360-degree feedback process. As a result, individual leadership development needs are identified and action plans created in conjunction with their manager. These improvement plans are then incorporated into the individual manager’s formal performance/development plan and are reviewed on a regular basis to monitor progress.

DiGregorio noted that all of these efforts carry ASM along a competitive path — yet there are no guarantees of lifelong success in their markets. "What motivates us to learn and do the things we do? We have survived in three company cultures," he said. “The era of life-long employment is gone. The world we live in now is very different. What we offer is employability — to be able to adapt and work in different situations. We are not laser-beaming on simply keeping today’s jobs. We are paying attention to the leadership development and learning that our employees and our business will require in the future."

Editor’s note: ASM employees at Nashua, NH will host a plant tour during the AME Annual Conference October 31-November 4, 2005 in Boston.

Lea A.P. Tonkin, Target editor, lives in Woodstock, IL.

Footnotes
1. Employees at the Hewlett-Packard ASM operation in Nashua, NH will host a plant tour during AME’s Annual Conference in Boston, "Leading the Revolution," coming up October 31-November 4, 2005. A variety of plant tours, presentations, and other activities will be featured during the event. The AME website www.ame.org has more conference details and registration information. The ASM operation received an IndustryWeek Best Plants Award in 2000.

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