

# Charting New Waters

The inside story of  
how Hewlett-Packard  
revolutionized its  
localization process.

by Karen Combe



**H**ewlett-Packard (HP) is a large, diverse corporation in which each business function operates with considerable autonomy. This case study addresses how a single group, the LaserJet Solutions Group (LSG), reengineered its language processes.

The Information Engineering (IE) department in LSG functions as an internal service bureau, providing English-documentation development and localization services for LSG products. IE selects suppliers, designs deliverables, manages projects, and delivers final output to its clients. IE must demonstrate its value to LSG during periodic reevaluations. It is therefore critical to IE's survival that its supplier program be successful, and be seen as successful.

In this case study, we examine IE's change from exclusively using an HP-internal localization group in Europe to establishing a viable, US-based, localization supplier program. We also look at the benefits derived from extending the "HP Way"—management principles typically applied only internally within HP—to its supplier program.

## Background

For its initial entry into localization, IE went to an internal HP group in Europe that provided localization into nine European languages. Contracting to small translation agencies and individual translators throughout Europe, the group could not be considered a full-service localization agency that offered complete project-management services. One person within IE, the localization project manager, supported and coordinated the effort on the US side.

It was hardly a "black-box" approach, as the US engineers were quick to discover. In the normal course of localization, translators need access to subject-matter experts to clarify text. Translators contacted the US-based IE localization project manager directly, who answered their questions with help from the engineers or the technical writers within IE. This coordination required considerable effort from IE.

IE recognized several additional shortcomings in this model:

- Because the number of projects and languages was slated to increase, using a single localization supplier, even an internal one, posed a risk.
- The eight-hour time difference restricted real-time communication.
- In the early '90s, knowledge of internationalization and localization was not widespread in the LSG labs or among the content developers. IE managers felt that a more team-oriented approach to localization projects between HP and a nearby supplier would facilitate sharing of knowledge and yield better global products.
- The translation coordination effort noted above would soon have required IE to add staff, as the number of languages and products needing localization multiplied. The table below shows how staff would have to be added under the old model as projects increased, as compared to fewer coordinators needed under the new model of adopting a local partner.

## Old Model

up to 2 projects	1 coordinator
2 to 4 projects	2 coordinators
4 to 6 projects	3 coordinators

## New Model

up to 4 projects	1 coordinator
4 to 8 projects	2 coordinators

### Requirements

These reasons were sufficiently compelling for the company to adopt a new model, and IE decided to change to a US-based, full-service localization supplier. HP managers faced two challenges: 1) choosing the right supplier; and 2) setting up a program that would get the best performance from the combined efforts of the supplier and HP teams. The supplier would have to meet multiple criteria:

- financial stability, including a sufficiently large customer base so that HP would not constitute too much of the supplier's business;
- proven multilanguage localization capability, with systems in place to ramp up new languages quickly;
- substantial production capacity in translation, desktop publishing, and engineering;
- project-management systems sufficient to handle very large projects;
- strong software-engineering skills;
- quality orientation and procedures;
- compatible corporate culture.

### Implementation

Choosing a supplier proved simple compared with the actual implementation. After a several-month search, IE chose International Language Engineering (ILE) of Boulder, Colorado (USA) [now part of Lionbridge Technologies].

The supplier program benefited immensely from application of HP's core management philosophy. This is particularly significant given the nature of the translation and localization industry. Although localization is complex and is in the critical path to launching a new product, language companies have rarely been considered as real partners in the success of new products. HP's approach to localization represents, in my view, pioneering work in the application of real partnering with a language-services provider.

In his book, *The HP Way*, David Packard explained his approach to management: "No policy has contributed more to Hewlett-Packard's success than the policy of 'management by objective.' [...] Management by objective [...] refers to a system in which overall objectives are clearly stated and agreed upon, and which gives people the flexibility to work toward those goals in ways they determine best for their own areas of responsibility."

According to management guru Peter Drucker, "in the traditional organization—the organization of the last 100 years—the skeleton, or internal structure, was a combination of rank and power. In the emerging organization, it has to be mutual under-

standing and responsibility." Packard notes that, "though Hewlett-Packard is hardly an emerging organization, mutual understanding and responsibility have been, for many years, key characteristics of the HP style of management."

IE chose its first and subsequent localization partners very carefully and then invested time and training in the relationships. Having selected what IE considered to be the best available partners, those companies were then empowered to do the best job. HP makes its expectations clear and then gives the suppliers the freedom and responsibility to reach those objectives; client and supplier are intended to act as colleagues rather than masters and vendors.

For its part, IE shoulders its own responsibilities in localization: defining the project, specifying reasonable turnaround for issue clarification, attending to internal problems, and providing its share to any mutual process improvements. By working in partnership with its suppliers, IE has determined that it gets more for its money—suppliers start thinking on HP's behalf, continuously looking for improvements in systems and processes.

Below are two examples of how this supplier program has worked.

#### Example 1: Establishing Engineering Confidence

The first stumbling block in the IE-ILE relationship occurred over engineering issues. In a project that we will call Kinley (not the real code name), part of the printer software was supplied by a third party. During localization into nine languages, ILE engineers discovered that the localized context-sensitive help was broken, although the English version functioned properly. ILE asked HP what could be causing the problem, and HP in turn referred ILE to the third-party developer. Meanwhile, because of tight deadlines, the project was advancing through its normal process. In the end, ILE and HP engineers together determined the problem and

**Having selected what IE considered to be the best available partners, those companies were then empowered to do the best job. HP makes its expectations clear and then gives the suppliers the freedom and responsibility to reach those objectives; client and supplier are intended to act as colleagues rather than masters and vendors.**

Rather than simply casting aspersions, HP was able to apply its empowering management philosophy. IE managers realized that since ILE had clearly demonstrated engineering expertise in other ways, there must be some other forces at work here. Instead of blaming the supplier for sloppy work, HP worked with ILE to understand the root cause.

its solution. However, the delay in resolution resulted in a considerable list of content issues to be taken care of by translators at the final verification (linguistic QA) stage, which meant that, because of an immutable deadline, normal QA tasks got short shrift.

The localized software first delivered to HP contained mistakes such as duplicate hot keys. Although ILE had helped solve online-help problems, HP engineers saw only the rudimentary errors and questioned ILE's engineering competence. Although the HP and ILE engineers worked together quickly to eliminate these low-level mistakes and HP delivered a defect-free localized product, the confidence problem remained.

Rather than simply casting aspersions, HP was able to apply its empowering management philosophy. IE managers realized that since ILE had clearly demonstrated engineering expertise in other ways, there must be some other forces at work here. Instead of blaming the supplier for sloppy work, HP worked with ILE to understand the root cause.

The root-cause analysis yielded several important conclusions:

- HP gained a greater understanding of the importance of process in large, multilanguage localization projects. If the designated tasks cannot be accomplished during the appropriate phase, and therefore extra tasks accumulate for completion in the final phase, then that final stage will produce quality problems unless that phase is lengthened.
- Failure to resolve serious issues had constituted a threat to quality and delivery. Project managers at ILE accepted their responsibility to clarify issues sufficiently to HP so that correct decisions could be made.
- HP recognized the importance of getting questions answered and issues resolved promptly.
- The software had basic internationalization errors which the HP lab did not recognize.

Conclusions:

- The HP labs needed training in software internationalization.
- The labs would need to monitor the internationalization status of third-party software.
- HP engineers had little understanding of the localization process and the relevance of the QA steps involved. This would be problematic for future working relationships with ILE or any other localization supplier.

ILE and IE instituted the following process improvements:

- An engineer-exchange program was instituted.
- At project kick-off meetings, ILE project engineers would visit HP and review the software with HP developers. This provided a platform for feedback to the HP engineer on localization issues, along with the opportunity to resolve issues early in the project. ILE engineers would become familiar with the software, learn to build the product, and discover any idiosyncrasies from a language-engineering perspective.
- HP engineers would visit ILE once the project was under way to observe the localization process. ILE would provide structured training on localization to the engineers.
- Over the course of several projects and through mutual feedback from HP and ILE engineers, a localization kit, called a Localization Instruction Worksheet (LIW), was developed and refined. This LIW contained all the information needed for the localization supplier to complete the software portion of a project.

This exchange program, started in 1994, still continues today.

- Based on their increased understanding of localization process, IE project managers agreed to respond to project-related questions within 24 hours. Although complete answers were not always available in that time, HP worked towards the fastest-possible resolution. They understand that if issues are unresolved within times they agree on with their supplier contacts, schedules may need to be adjusted or QA steps added to ensure quality.
- ILE provided internationalization training to HP software and firmware labs. HP developed internationalization standards in their labs, and provided further training in their own teams. This training, which began in 1994, continues today for new engineers.
- ILE modified its standard process by adding a translator QA for projects with substantial translation during the verification stage.

IE mustered internal support for these initiatives. The manager of the localization group within IE set up meetings with lab managers to discuss internationalization requirements, and sponsored training sessions for lab engineers. Lab managers were invited when ILE presented new internationalization or localization technologies at HP. IE localization managers included engineers in project "post-mortems."

### Example 2: Outsourcing English Development

In 1995, IE determined that HP would be best served by outsourcing development of learning products—the term it uses for the help and documentation accompanying its hardware and software products. Technical writers and graphic designers who created learning products had, until then, resided within IE. The technical writers also served as project managers on the cross-functional teams that included software labs, marketing, HP's localization project manager, and the printing/distribution specialist.

Through closer involvement with localization, IE now understood that the way English learning products were developed directly affected how easily they were subsequently localized. For example, if writers index an English manual by inserting markers and using the index-generation feature in their desktop-publishing software, translated indexes could be generated with minimal manual inter-

vention. But if writers used manual techniques on the English, such as post-editing the generated index, that manual work would have to be repeated in each localized version—up to 30 languages for HP. Every error or inefficiency in the original English is magnified many times over by the time localization is completed.

IE saw the value of combining English development and localization services. HP's suppliers added development resources to accommodate the new need, and opened local offices for proximity to HP's subject-matter experts. HP gained the benefits of one-stop-shopping for English and localized languages, as well as the improved service resulting from having local suppliers.

Once localization and development were combined, other synergies came to light. English writers could now serve as subject-matter experts for translators and localizers, and could also formulate text more clearly for that purpose. Writers could provide information for translators before translation began, and answer questions quickly once a project was in flight. Similarly, translators would provide feedback to writers on the localizability of the text they were creating, and help raise the level of internationalization in HP products. In addition to outsourcing English development, HP in effect outsourced localization support.

Within HP, outsourcing English development of learning products evoked a certain unease, since the help and documentation were viewed as integral to the products. IE worked to alleviate this response:

- For unusual project needs, such as instant response in a time-sensitive situation, IE implemented special processes to ensure that a supplier's writer or graphic designer would be available immediately to rectify any problem.
- The supplier's writers and project managers were drawn into HP's planning process.
- HP project teams were involved in evaluating bids and awarding projects, giving them a sense of comfort with a supplier's capabilities.
- HP employees worked with suppliers on special projects, such as style-sheet design.

### Benchmarking

In the critical early years following the change to US-based suppliers, IE measured program success in three key areas: quality, cost, and on-time delivery.

**IE continues to benchmark its program internally based on cost, on-time delivery, and quality. Suppliers have lowered prices with heightened efficiency, and time-to-market pressures have forced shorter turnaround. In-country reviews are performed more frequently, so that HP gets regular project-level feedback on terminology and translation quality.**

- During that period, IE did not submit localized products for in-country review on a per-project basis. Instead, the "product champions" in each country were polled annually. The positive feedback from these experts assured IE that suppliers' translation quality was good.
- Cost comparisons over several years and across multiple projects indicated no increases in unit costs for translation/localization, while volume of work increased and cycle times were shortened.
- Careful tracking of projects showed improved on-time delivery with the new program.

IE continues to benchmark its program internally based on the hard criteria of cost, on-time delivery, and quality. Suppliers generally have lowered prices with heightened efficiency, and time-to-market pressures have also forced shorter turnaround times. In-country reviews are now performed more frequently, particularly for the recently added languages, so that HP gets regular project-level feedback on terminology and translation quality.

IE has also added some softer, less tangible measures:

- **Supplier Evolution.** Client requirements are continually changing; suppliers are expected to design and implement improvements across the whole range of 30 languages covered.
- **Productivity Trend Data.** With time, project budgets should decrease comparatively, as more text is reused and processes are improved. IE is finding its own headcount is staying relatively flat although it is handling more projects.
- **Perceived Value.** IE gets regular feedback from its internal customers on the value of the services they provide to LSG.

### Conclusion

By becoming students of the localization industry, IE managers have been able to assure that their translation program is competitive. They attend industry conferences, such as STC, LISA, and Seybold, and monitor industry-watchers such as The Gartner Group.

HP's IE group has implemented an English development and localization program that responds effectively to the needs of internal customers and ensures IE's value to the LSG organization. By applying HP's internal management philosophy to the supplier program, IE has developed partners that work on their own and on HP's behalf to continuously improve process, increase value, cut costs, and decrease time-to-market. This case, from both HP's and its supplier's perspective, has all the earmarks of a success story.

*Karen Combe writes and speaks often on internationalization and localization issues.*

### About the Case Study

This is an introductory excerpt from an extensive case study on Hewlett-Packard's localization strategy, and appears this month in the ATA monograph series, published by John Benjamins. The book, *Translating Into Success*, features real-life examples of language-technology and management techniques at global companies, large and small.