



Pink Ink

Second in a three-part series

Localization and Advanced Technology:
Achieving SimShip

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Localization and Advanced Technology: *Achieving SimShip*

Second in a three-part series, by Chris Langewis, ABLE Innovations, Inc.



Review & Preview

In my most recent column, I introduced the concept of "pink ink," which represents the millions of dollars lost each year by software companies that don't actively manage their international channels of distribution or release globalized products for international markets in sync with their domestic versions. In this column, I'll discuss processes and technologies that software companies can use to solve this 'time-to-market' dilemma and grow international revenues.

First, however, let's review the chief way to reduce pink ink: companies must eliminate the lag between domestic and international software product releases. There are two levels of processes involved in achieving this goal. On one level are processes related to the translation and localization of software products and documentation. At this level, the primary focus is on the tools and processes needed to achieve simultaneous shipment, or "SimShip," of domestic and international software releases. On a second, deeper level, companies face the challenges of internationalizing basic software-engineering processes and globalizing basic thought processes. At this level process re-engineering is a globalization strategy, not a localization strategy and involves fundamental issues, such as the way a software firm's leaders set goals, and how they reward development teams. I'll discuss the people issues in more depth in the third column.

Turning Losses to Profits

Since this article is about the benefits of SimShip, let's be clear up front that SimShip is critical if companies plan to turn pink ink black. Getting new software and upgrades to overseas markets simultaneously with domestic releases can ensure that extra revenue flows into company coffers over many more months of a product's life cycle. Because overseas product-release "delays" in fact shorten a product's life cycle, delivering software to overseas markets a day sooner amounts to extending that's product's revenue-generating life. SimShip can double or even triple a product's life cycle, with tremendous financial impact, and localization expenditures can exert great leverage, according to experts ([Common Sense Advisory](#), 2002).

Turning Losses to Profits (cont.)

One of the first steps in achieving SimShip of domestic and international software products is to understand the difference between two simple words: “faster” and “sooner.” Whether due to FedEx delivery or one-click ordering, success is often the by-product of speed. In domestic-market software development, speed is enough: all other things being equal, the faster you can develop software, the sooner you can launch the product, and the more money you make. The speed model breaks down at U.S. boundaries, however. If you wait until the domestic version of a software product is finished before starting work on foreign-language versions for the international market, you’ll suffer lost revenue, period. Localizing faster can cut the number of days and losses, but the real key to SimShip is timing: starting the localization process sooner in the source-language software development process is crucial.



For example, if it’s going to take six months to localize software into a dozen foreign languages and you want to achieve SimShip, you must begin the localization process six months before the software’s domestic release date. There’s no getting around it. “Sooner” would be impossible without translation technology, though, so working on both levels is critical to success. In the past, launching into translation was doomed to fail if begun before the code, text, content and layout of the domestic-release software product were frozen. The constant shifting between these dimensions created a moving linguistic target. It just couldn’t be done efficiently.

A Changing Picture

Clearly what was needed was a process for getting a product to foreign markets sooner. Today, developers of a variety of language technology tools have developed solutions that are tailored to accomplish even very aggressive SimShip objectives. Two major categories of translation and localization tools address a range of issues and problems related to getting software products into international markets quickly. One category involves the translation of text based objects; the other involves code based objects.

Technology and Text-Based Localization

Software localization involves far more than translation, but translation needs alone can be complex and varied. Localization almost always involves technical manuals, user guides, online help, and other text-based materials and objects. Furthermore, the same text often appears in multiple locations in these materials, as well as in the application code and associated libraries. Sentence-memory products like Trados, Déjà Vu, and others were designed to preserve translation quality and consistency. These products work by building a database of sentences, strings and words related to a translation project or a given document. For example, as a user manual is translated, each sentence goes into a database. If the sentence appears again elsewhere in the project, the sentence-memory software automatically replaces it with the translation previously entered. This technological development significantly speeds localization.

More importantly, these tools let translation begin sooner in the product development or upgrade process. Sentence-memory software tracks an element through the life of a project, enabling translation as soon as source-language text is created. As a new release or update evolves, sentence-memory software tracks which text elements have changed and what elements

have been added. If there are matches with previously translated sentences, the software plugs in the translation automatically. The benefit: you don't waste time and effort - you don't have to deal with rework resulting from changes in the underlying software or supporting materials.

Technology and Code-Based Objects

Text-based localization presents challenges, but translating the code-based component of a software product is especially complex. Just translating the words in the U/I is not enough; extra engineering and testing are required to make adjustments necessitated by the text layout of the new language being introduced. Often the U/I text is buried in the software and hard to access.

The 1990s saw the introduction of new tools that address these problems. Products such as Catalyst, Multiliser and others conveniently enable a translator to access U/I text and see how their translations look in WYSIWYG format. Such tools enable layout adjustments to be made. These tools work by capturing all translation and layout work in a database. When an update to the work-in-progress comes along, the existing translation and layout are automatically applied to the updated software product, preserving work already done and avoiding rework. The result is that you can start localizing software products before they're frozen, getting you to market sooner, and with less havoc.

Though these and similar products represent a major advance in localization technology, they share a fundamental weakness, however: The translated U/I ends up being built into the software, creating a new version of the product in each foreign language. This can be very costly in terms of engineering and testing.

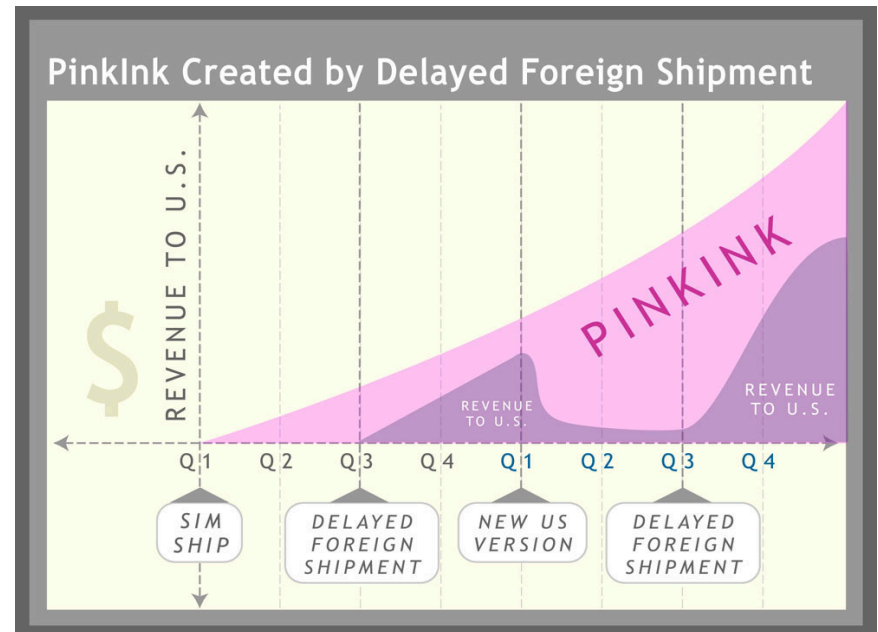
Advanced Technology: Code-based Translation

Fortunately, a new generation of technology has emerged to practically eliminate the language re-engineering and re-testing work that normally accompanies localization. Foremost among leading edge localization products is WizTom, distributed by ABLE Innovations. This product handles code-based objects without interfering with the code itself, eliminating a major inefficiency in the localization process. Specifically, WizTom lets non-technical staff field multilingual products without the costly step of rebuilding the application for each language, achieving these results by placing all foreign-language content in a database that remains external to the original product, and then by dynamically displaying the foreign U/I at runtime. With this tool, a single software application can project any number of languages, enabling more rapid entry into multiple markets.

The end results:

- you're rewarded for starting localization sooner, because the process underway is substantially accelerated
- you can achieve global product releases "in sync" with domestic product releases.

By employing the right tools early enough in the development phase, you can develop multilingual product in parallel with the creation of the original product. Language professionals and project managers alike can be confident that they'll spend their time adding to and improving a body of translated copy, rather than wasting their time re-translating or keeping track of different versions. In addition to facilitating SimShip, advancements in language technology can lead to reduced localization costs and improved ROI. In short, when "faster" meets "sooner," success across international boundaries is all but guaranteed for quality products.



Solving the 'time-is-money' issue: Is it enough?

As we've seen so far, to achieve SimShip, companies need to leverage technologies that help incorporate translation activities into the software-development process in early stages. Making change a constructive part of the process, handling change incrementally, and addressing change issues sooner are important steps. It's also important to recognize that starting the localization process sooner may motivate some firms to examine attitudes and actions that may have been slowing their progress. For example, for software companies that have relied previously on overseas distributors for post-release localization, taking a more direct part in localization processes may mark the first time they've taken control of the localization process. With control and improved information, gained during the more deeply embedded localization process, a company may also realize how vulnerable Anglo-centric or ethnocentric products can be. This realization is valuable - companies suddenly notice an Achilles heel that they didn't know they had, and although that can be uncomfortable, in the long run, this kind of hard analysis can lead to better products and processes.

Japanese translations, for instance, idiomatic and accurate as they may be, can suddenly crash software that's not double-byte enabled. Arabic, which is read right-to-left, can do the same. Differing international standards for things as simple as date and decimal formats can wreak computational havoc. When bad things happen, a translation challenge may suddenly become an engineering and QA issue. Software engineers working on

the next domestic release are forced to drive in reverse, fixing code they thought they'd long since put to bed.

Clearly these outcomes are undesirable, and so a cost-conscious company would be motivated to avoid them by exploring ways to internationalize product at all levels. In the final analysis, slashing pink ink is not solely the function or result of improved localization tools and processes. Future profits depend on the production of software products that are "born to be localized."

To achieve this end-game goal, companies must:

- **Perform localization at earlier stages in product development**
- **Deliver localized products faster**
- **Use advanced localization technology**

In addition, companies need to re-think specific processes in order to bring key organizational actors more directly and effectively into the picture. These "people processes" include:

- **Providing internationalization education for developers and marketers**
- **Resetting management objectives, and organizational goals**
- **Analyzing and adapting compensation packages**

Ultimately, reducing pink ink is about engaging people to work in a more globally aware way. In the final article in this series I'll explore how the human resources in an organization can be motivated and enabled to stop the flow of pink ink.

About the Author:

Chris Langewis has 25 years of international software business experience. He has built global product marketing groups and led teams in the development and implementation of new technology for machine translation, computer-aided translation tools and localization process management programs.

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