

LOST

LOCALIZATION

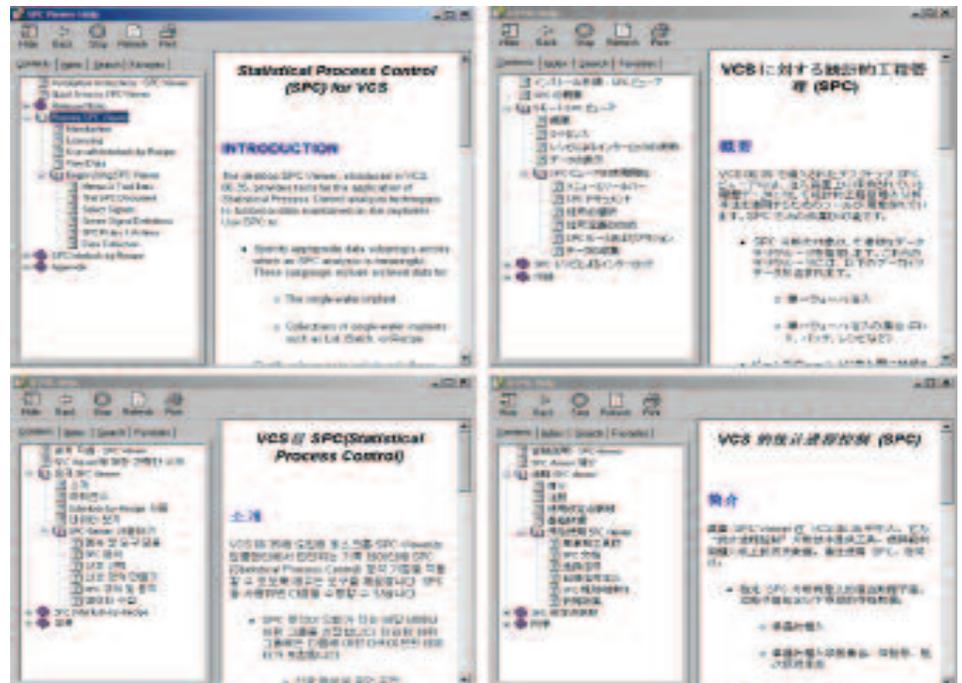
How to Make Your Interfaces International

BY MICHAEL LEDOUX

An operator of a \$3.5 million ion implanter in Japan is busy processing silicon wafers. The implanter is a complex mix of technology and is powered by 270,000 volts of electricity and an array of toxic gases. Suddenly he is presented with an alarm message on the user interface. The message in English indicates a toxic gas leak. He pauses, not understanding the English message. He starts to reference in-house translated documents that might describe this alarm message. After a few minutes he seeks out a colleague who knows a bit more English than he does. They both stare at the message trying to decipher its meaning, while toxic gas is slowly leaking from the implanter.

This is a worst-case scenario and, in reality, our equipment provides enough interlocks and sensors to protect the user from such a scenario. However, we do have roughly 8,000 user messages, some of which provide information about potential harm to the operator, the implanter itself, or the product. All carry a high cost if not understood by the user. These very expensive and potentially dangerous pieces of equipment are sold to fabrication manufacturers throughout the world. Yet, the user interface and all its external textual resources remain in English. My director and I had traveled to several customer sites around the globe and an obvious question arose: Do we have a globalization plan?

My first task was to understand the nomenclature: Globalization (G11N, or G, 11 letters, N), internationalization (I18N), and localization (L10N). These are terms that seemed interchangeable to me. But I soon discovered the unique set of roles and issues each presented in dealing with my existing software.



Same online documentation topic in four languages.

Globalization of a product encompasses many marketing, development, and processing decisions. Basically, it is the high-level approach across corporate disciplines in preparing a product for global delivery.

Internationalization is the process of making software adaptable to the requirements of different native languages, local customs, and character-string encodings. It's not only translation, but also the other preparation that makes a computer program adaptable to different locales without program source modifications or recompilation.

The Localization Industry Standards Association (www.lisa.org) defines localization as, "the process of modifying products or services to account for differences in distinct markets." For my purposes, albeit simplified, I view localization as the process of translation, internationalization as the low-level development processes needed to support localization, and globalization as encompassing all activities related to the global delivery of a product.

It was not difficult to associate a localized user interface with ease of use. I accepted this responsibility within my area of usability. After all, I had a compelling reason to localize: I might ensure the safety, if not the life, of the Japanese operator in the aforementioned scenario.

We cautiously planned our localization approach, basically "testing the waters" with our initial project. We decided our first effort would be to localize our externalized language-based resources: user messages, online documentation, and release notes. Localizing these textual resources could be completed relatively fast at a cost within our initial budget. This project would introduce localization to our Asian markets and provide an opportunity to gauge interest and effectiveness. The feedback we would gain could help us determine whether to make a greater commitment to localization. It would also allow us to develop the infrastructure in the code (the mechanism to switch languages) and to set up a structure for managing and delivering localized resources within our development process.

Why Avoid the Temptation of In-House Localization

Many companies employing a language-diverse staff will be tempted to localize their content internally. It is very tempting to ask employees with other primary duties to translate materials on the side. There is an advantage in cost and domain knowledge in this approach. But there is a greater downside. No matter the primary job of these personnel,

they are not trained translators. They cannot take advantage of the translating software tools and translation techniques certified translators offer. They are not supported by a quality workflow process (reviews, programming, editing, and desktop publishing). Subsequent translation work will not be able to leverage past experience. And finally, because this arrangement cannot be scaled up, it will provide inconsistent results and be more costly in the long run.

How Localization Companies Operate

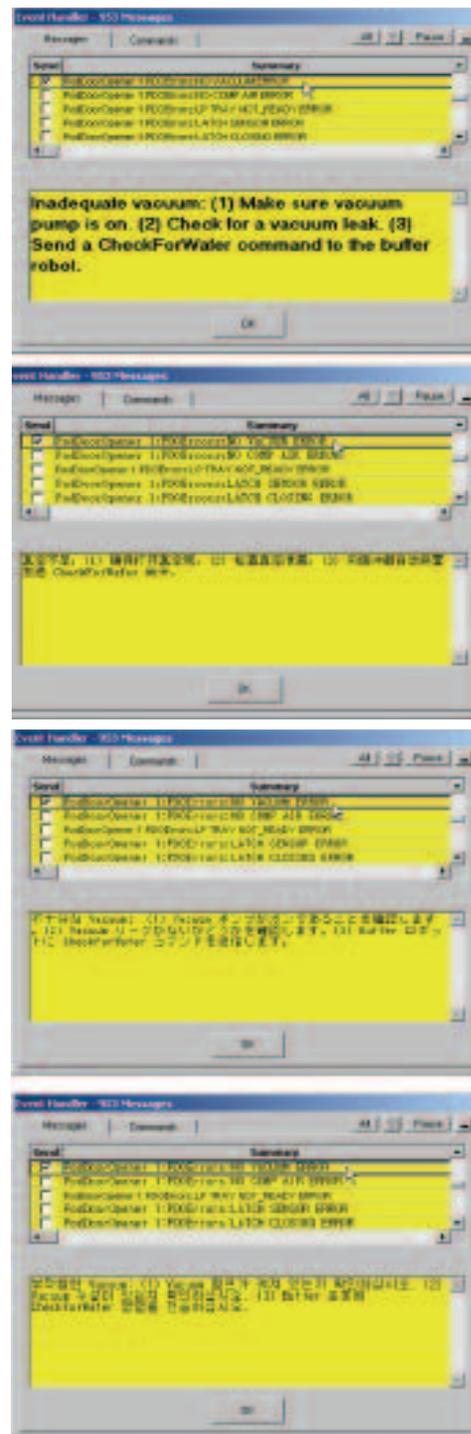
Localization companies can be identified as single language vendors (SLV) or multi-language vendors (MLV). SLVs typically specialize in a single language, or even a set of related languages, by region or structure. An example of region would be the language grouping called FIGS (French, Italian, German, and Spanish). MLVs can often handle any language request.

The typical business model for these organizations, especially the MLVs, is to contract out the translation work to in-country translation companies. The larger MLVs will have a vendor selection group that secures relationships with these companies. A good MLV will conduct language testing and require some certification process. Whether big or small, the MLV provides a structured process and acts as a conduit between you and the in-country translation company. While you could go directly to these in-country organizations and perhaps save a small amount, you lose several advantages, including the MLV's structured process, the support of the MLV's project management team, related services such as desktop publishing, and additional technical resources for solving processing issues, such as those surrounding file formats, parsing file structures, etc.

How to Select a Quality Vendor

Many localization companies specialize in certain business sectors, such as medical or manufacturing. Because there's so much more to translation than just words, it's important to obtain references from your industry sector. Localization companies not well versed in your domain and nomenclature will require extensive glossaries, editing, and reviews.

Vendors will be more than happy to provide samples of what they can do for you. I selected three potential vendors and provided each with the same sample of roughly three pages. Each vendor translated this material into Japanese, Simplified Chinese (in the 1950s, China began reforming the Chinese writing system in an attempt to sim-



Same error message in four languages.

ply the language), and Korean. Make sure you ask the vendors if the translators doing the sample will be the same ones on the actual project. I found that some companies will assign their best translation team to prepare the samples and, once they get your business, will assign the real work to a lesser quality group. In our case, the samples were well done, but when we received our final deliverables, the work had obviously been done by another translation team. Worse, the work had to be redone twice.

Select a designated reviewer in your organization. Select reviewers well versed in the target languages and the domain nomenclature. It's best to qualify one reviewer, as multiple reviewers (for the same language) may not entirely agree on word choice and style. The reviewer will critique the quality of translation, especially as it pertains to the domain language. The usability professional can review the localization company's ability to properly render the translated content from a desktop publishing point of view. One doesn't necessarily need to know the target language to verify that the content is present and positioned properly in the media of choice. Due to word expansion and font size increases, content may shift around.

One of the by-products of translation is the translation memory (TM) file. The language tool that your localization company uses creates this file. The TM file stores previously translated texts in their source and target languages. The texts and their translations are divided into smaller units (sometimes referred to as "segments") so that they can be used and reused by translators as an aid to translating texts with a similar content. Translation memory tools may interface with terminology databases, and they may support different file formats and project management features. The TM file is an important deliverable to obtain from your localization company. TM files grow "in knowledge" through subsequent projects. Be aware that some localization companies do not surrender these files. I believe good companies have the confidence in their abilities to freely offer the TM files. Should you decide to change vendors, these files can be delivered to your new vendor for leveraging this prior work experience.

In selecting a quality vendor, it is also important to verify they have a process in place for managing localization. The company I use offers documentation on their process, which they actually follow. Well-organized localization companies will surround your project with a project team, which includes a project manager, editors, lead translators, a technical lead, and desktop publishing personnel. All play a part in producing quality translations. Some companies will even offer a Web portal that supports client and vendor document exchanges. You can verify a company's process claims by asking if they are ISO-9000 *certified*. This ensures their process is strictly followed. ISO typically reviews an organization's process every one to two years. Companies that claim they are ISO *compliant* do not have an officially reviewed process.

How to Make Your First Project Successful

- ⊙ I would suggest your initial project be small in scope. The localization company needs to prove their capability and quality.
- ⊙ Projects require good supporting documents. Consider creating a project document together with your vendor that contains the following:
 - ⊙ any process rules or procedures you may have for translation
 - ⊙ specific requirements and formats for the deliverables
 - ⊙ a glossary of terms for your industry
 - ⊙ a carefully designed and clearly documented style and layout specification. This document provides useful guidance and ultimately reduces localization cost.
- ⊙ You will have to decide on a font and point size that can handle your Unicode character sets and render them correctly in your interface. This is one area in which I felt that the localization companies fell short. Perhaps it's because localized interfaces usually run within an operating system already supporting the targeted language. The challenge for my application was that it was running on an English version of Microsoft Windows 2000 in all international locations. Thus, when users switched the choice of language in the user-interface, we had to implement the correct font for that language and increase the point size since Asian glyphs (character shapes) tend to require more vertical space to render properly.
- ⊙ Culturally based considerations should also be discussed with your localization vendor prior to the translation work. In our case, we learned that the Japanese language offers several honorific levels of formality and politeness: colloquial, more polite, and a very polite level called Keigo. Each of these levels also contains sub-levels. It can be quite complex. You need to decide the level of formality for your translations. Is the language content informal or business related, or does it require extreme protocol and politeness in style?
- ⊙ We also learned that if the targeted language is Chinese, you need to decide if Simplified Chinese is your choice. Simplified Chinese is typically read in mainland China and Singapore, whereas Traditional Chinese is the preferred choice for Taiwan and Hong Kong. But there are differences between the Traditional Chinese translations for Taiwan and Hong Kong. This should give you an appreciation of the complexity.

- ⊙ For those performing translations in the other direction, from Asian languages to English, for example, there are similar questions. Are you shooting for the American audience, British, Australian, Canadian? Do you know the cultural issues and usages?
- ⊙ Although not in the scope of translations, there should be sensitivity to the use of icons and symbols that might be deemed offensive in the targeted locale. Regarding

Do's And Don'ts When Localizing Art

by Nabil Freij

It is said that a picture is worth a thousand words. Yet many companies balk at the cost of localizing artwork, despite the fact that each one costs far less than translating a thousand words. It is common knowledge that art-file localization adds substantially to the localization cost of manuals, documents, and help files. The following are principles you can follow to help minimize these costs:

Do use art only when necessary. Often (particularly with online help), the user is running software simultaneously to the help file. Having dialog box bitmaps displayed in the online help is redundant since the software is already displaying that dialog box. By minimizing the use of dialog box art, recapture in all necessary languages is minimized, as is the associated cost.

Don't incorporate unnecessary information into the art files that could change with each release. More specifically:

Remove the product's version number or name from the dialog box header and body.

Avoid using special Windows themes. Stick to the standard (Windows XP style or Classic style). Making dialog boxes independent of the version of your software or Windows will enable you to reuse them as in future updates of your software.

Only capture the part of the dialog that is pertinent to the context, as opposed to the entire dialog. This will minimize the chance of change and subsequent recapture.

Do save all necessary files and steps used to create artwork. If you are generating dialog boxes from your software, make sure you archive all the

icon usage, consider image-related icons which are highly pictorial representations of the object or act they represent. Concept-related or arbitrary icons will be harder for people in different cultures to comprehend.

Conclusion

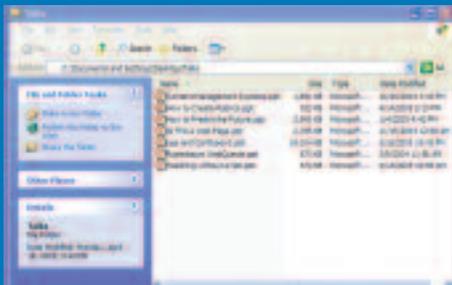
The Japanese have a word, *kakushi-gei*, which means that a person has some secret skill, something apart from their nine-to-five

vocation. In Japan's business world, this skill usually reveals itself in after-hours socializing. Perhaps it's a musical instrument or magic tricks. Employees will even develop this secret skill to make a good impression when it's time for their "performance." Typically, most people will just sing a song Karaoke style. But as the usability world develops and branches out, perhaps your *kakushi-gei* will be a more skillful understanding of localization. **UX**

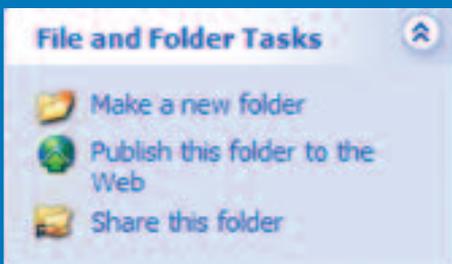
ABOUT MIKE LEDOUX



Mike Ledoux is originally from Montreal. He currently works as the principal usability engineer for Varian Semiconductor Equipment Associates. In his other life, he plays acoustic country blues around Boston and Cambridge, MA.



Don't show all this...



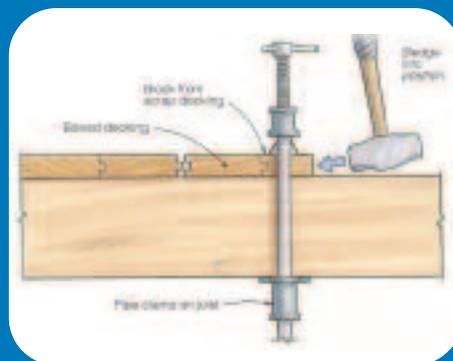
When all you need is this. Show only the pertinent part of the dialog box.

necessary project files that are used in the process. If there is a way to also record a macro, do so. You are more familiar with your requirements and software than the person who will be tasked with generating localized art. Making all the initial project files available will simplify the recapture process, reducing its time and cost.

Don't embed graphics in the documents. Art should always be linked to the main document. Although this creates more files to manage, it also gives each art file its own identity, enabling easy reuse in future updates. Furthermore, this will make the main document size much smaller and manageable by translation memory tools that process it during localization.

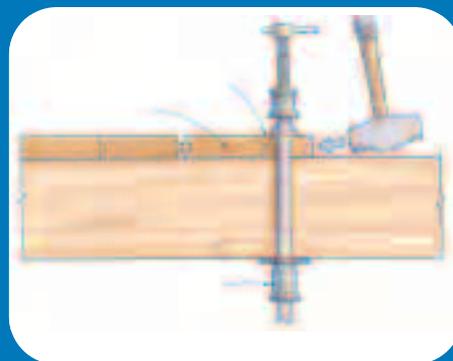
Do use callouts whenever possible outside the graphics. Art that does not contain text may require no localization efforts at all. Culture-sensitive art is the

exception, but this is not often found in technical manuals or software help. Minimizing text in a graphic will reduce the localization cost. Callouts can be easily translated with the rest of the document.



Above: Nice picture but it will be difficult to localize because the text is embedded.

Below: Without embedded text, the documentation specialist can add callouts in any language.



Don't mix art you are localizing with art common to all languages. Separate art files into two folders, "localizable" and "common". This will optimize disk space, since only localizable art will be duplicated for each language. Also, apply a time stamp to art files to indicate their release dates. Having files separated and stamped will facilitate reuse of localized art from previous releases. It will also reduce the time needed for sorting and generating work estimates.

With the advent of all-in-one image analysis applications, localization specialists can now load and browse all localizable art files in one interface. The files can then be grouped by function: translation, capture, animation, and complex categories; text extraction for translation; report generation to guide the localization process; and quality assurance of the source and target graphics in one interface.

Don't discard source files when sophisticated art has been created in vector formats (such as EPS, AI, WMF, etc.), and then saved in bitmap formats (GIF, BMP, JPG, etc.). When text is embedded in bitmap files with complex background colors or graphics, it is often impossible to replace source text with target text without disturbing the background graphics. Having the vector format files available will preserve all background information, and enable simple replacement of the text with the necessary translations.

Do use art where necessary to facilitate the user's understanding and use of your product. After all, it is the end user you are ultimately tasked to communicate with, not your localization service provider.

ABOUT GLOBALVISION



Nabil Freij

This article was reprinted from the GlobalVision International, Inc., website. GlobalVision provides translation and localization solutions to software, hardware, telecommunications, Internet, engineering, medical, and manufacturing technology companies. The complete collection of InfoMail articles is available at http://www.globalvis.com/news/previous_infomails.htm.

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