A Translation Factory

Tokyo translation company IBS has built an assembly line around NEC's PIVOT system. It's one approach to staying competitive.

The translation business, like many Japanese service industries, has been hit hard by Japan's recession, the first in living memory for many young Japanese. "Translation is the first to go." says Keizo Sakurai, director of IBS, a translation company in the Tokyo suburb of Hachioji, about an hour from the Shinjuku train station in Tokyo. Sakurai says his company's current monthly volume is two to three thousand pages, down from twelve thousand pages a month two years ago. Most of IBS's business is English to Japanese; the remainder is Japanese to English. IBS was founded ten years ago by Sakurai, himself a translator who started his career many years ago translating the good old way by dictation. While Sakurai's company may share the woes of the industry as a whole, IBS is markedly different in one way: IBS is one the few translation companies in Japan completely committed to MT. Everything the company translates (except legal materials) is run through its MT system. IBS offers fast turnaround and consistent results at competitive prices. Sakurai likes to think of IBS as the "MacDonald's" of translation.

Sakurai is a brave man: over the years, he has experimented with a variety of MT systems within his company, including Bravice's MicroPak, Oki's Pensée, and Sharp's DUET. These have each required investments in the respective proprietary PCs required to run them (until the advent of DOS/V, a surprisingly common phenomenon in Japan), and, indeed, the Pense, box can still be seen gathering dust in a corner of the IBS offices. Moving from one system to another has meant discarding the user dictionaries; with each system, Sakurai has started from scratch.

Three years ago, IBS made the move to NEC's PIVOT, the system the company currently uses. Sakurai took the daring decision to commit his company to using MT solely. That meant, among other things, moving out of downtown Tokyo and hiring full-time translators, very much a rarity for Japanese translation companies, which traditionally rely almost completely on freelance translators. "I realized we could no longer continue working with freelancers." says Sakurai. "For MT, we needed to have a steady team of in- house translators. And that meant we needed to have more room. Office space here in Hachioji is about a fifth of what it costs in Tokyo."

IBS compensates for its being physically distant from its customers, largely in downtown Tokyo, by telecommunications facilities. The fax, of course, is central; it is the primary vehicle for sending and receiving translations. ibs has one of the still uncommon Group IV faxes and the requisite ISDN link. Not all customers have G4 faxes, but those that do make the lives of Sakurai and his colleagues that much easier. To render source language materials in machine tenable form, incoming texts both Japanese and English are processed by PC-based OCR software and converted to text files. Unfortunately, this is not an automatic process; it still requires manual intervention to block out paragraphs and clean up the OCR output. With a resolution 400 dpi, the G4 fax is obviously far preferable to standard fax copy for OCR purposes. For outgoing translations, Sakurai likes to think of the G4 fax as an "on-site printer." thereby going a long way towards obliterating the physical distance between customer and supplier. Once installed, the G4 fax is economical, too. Transmitting a page in less than ten seconds, it brings transmission costs anywhere in Japan to \$10 per page.

IBS has invested heavily in infrastructure; alongside the G3 and G4 faxes its compact quarters are packed with computers and peripherals, with a Novell network connecting everyone, including the company's well-equipped, Macbased DTP department. "Originally, we would have liked just to stick with translation." explains Sakurai, "but

customers also required layout services." The pivot-based MT backbone consists of five Unix workstations and five X/Windows terminals; the ratio of one terminal to one workstation provides acceptable translation speed. The NEC software provides what Sakurai considers to be the complete translation environment: a multilingual word-processing environment (texts in parallel columns aligned sentence by sentence), electronic dictionaries, and MT. IBS has put considerable effort into building up PIVOT dictionaries. Along with its own basic user dictionaries, IBS has developed thirty-one customer-specific dictionaries, bringing the total to 700,000 to 800,000 terms online. What this hardworking pivot system may lack in linguistic finesse it compensates for with ample terminological brawn.

The company also maintains terminology databases in Lotus 1-2-3 running on laptops adjacent to the Unix workstations. These termbases are developed on the basis of terminology provided by major clients. IBS keeps the 1-2-3 termbases synchronized with the PIVOT dictionaries and uses them for verification purposes. For large jobs, IBS supplies its customers with a list of the terminology used; sometimes, says Sakurai, customers forget the terminology they've defined in the past and these 1-2-3 termbases help them refresh their memories. He says he'd like see an MT system one day that would generate a glossary of terms at the end of a translation for review purposes.

A staff of six fulltime Japanese translators currently pre-edits Japanese source texts and post-edit Japanese translations. In addition, Ian Wilson, a Brit, is employed to clean up the English OCR output prior to translation and to post-edit the English texts, a fulltime task. During the transition to MT, all of Sakurai's previous employees left, and now, for a variety of reasons, he prefers to hire people fresh from college or English vocational school, the chief requirements being a solid grasp of basic English and good typing skills. Typing has until only very recently been a rare skill in Japan, but now with the widespread popularity of the wapuro, it is becoming more common. Sakurai estimates that fifty percent of college students in Japan can now type.

"Experienced translators instinctively believe that they have most of the knowledge they need in their minds," explains Sakurai. "They don't readily submit themselves to an MT system." Inexperienced translators lack this psychological baggage and don't mind having the system do the bulk of the translation work. He believes his company compensates for its translators' relative lack of experience with the depth and breadth of its PIVOT lexicons. With the assurance that the terminology is correct, post-editors need only concern themselves with cleaning up the grammar of the Japanese output (or input). "MT also changes the relationship between manager and employee in a positive way," says Sakurai. Rather than taking the adversarial stance of looking over a new recruit's shoulder at his or more likely her work, Sakurai and his translator examine together how the MT system is doing and look at the problems *it* is having. ibs's small team of translators help each other and give newcomers a hand getting up to speed. This kind of teamwork is "good for the company," says Sakurai.

With the MT system as company knowledge base and a team of full-time translators wedded to it, Sakurai also feels more secure that his hard-won business won't walk or get snatched away. Whereas Sakurai would hesitate to give the name of a customer to a freelance translator for obvious reasons, he is quite comfortable having his inhouse translators contact customers, providing them with a name, a telephone number, and a fax number with a translation job. He even has a cordless telephone in his office so that translators can call customers while sitting in front of their workstations. "Customers gripe about all the calls they get from us," he says, but it doesn't faze him; the ends, after all, justify the means.

While there may be better MT systems on the market, Sakurai says PIVOT satisfies a number of crucial requirements: it is multiuser (i.e., its dictionaries can be shared across a network) and it is fast enough to allow multiple users to do interactive, trial and error translation. While Sakurai liked DUET and speaks highly of Sharp's customer service, the system suffers from "weak hardware"; it only runs on the underpowered (for MT) Sharp laptops. As market leader, Sharp's strategy may be more oriented towards developing a mass-market commodity product for personal use rather than the powerful server a company likes IBS requires. With Unix-based PIVOT, in contrast, NEC addresses these needs. Most important, the IBS setup is extendable. Sakurai can double the number of translation workstations just by plugging additional workstations and inexpensive (¥500,000) X/Terminals into the network,

something he hopes to do soon.

Using MT in any context is a challenge but translating Japanese into English brings with it its own particular problems. IBS translators spend a lot of time pre-editing Japanese texts prior to submitting them to PIVOT. Sakurai says the lack of technical writing skills in Japan means many of the texts they have to translate are poorly written. Verbose and ambiguous, they are difficult for humans to digest, let alone machines. In contrast, Sakurai singles out IBM's manuals. Written for worldwide dissemination in mind, they are admirably suited for MT.

IBS also operates a translation service on PC-VAN, which is, with more than 600,000 million users, Japan's largest online service. Unless requested otherwise, incoming texts are automatically processed by PIVOT with no manual intervention namely pre- or post-editing of any kind. Under the agreement with PC-VAN, texts are treated as confidential, so Sakurai has no idea about what kind of material is translated by PC-VAN customers. However, if the customer wishes, post-editing is available. The cost of raw MT is \\ \frac{4}{3}50 \text{ per 180 words, post-edited MT is \\ \frac{4}{3}50 \text{ per words.}

Sakurai is very interested in high resolution output and inquires whether European translation companies are switching over to 1200 DPI plain paper laserprinters, for example. A healthy half of his business and many of the desirable larger translation projects are contracted out by printing companies. In Japan, translation is seen as part of the printing process, and indeed one of Japan's largest MT users is Nikkei Printing. Like others in the translation business, Sakurai hopes the downscaling of printing technology will offer him the possibility of gaining more control of the documentation production process.

While IBS is set up to handle big projects, like last January's thousand-page Chrysler Cherokee manual, much of IBS's current translation load is ironically two- to three- page documents. "Two years ago, we turned that kind of work down," says Sakurai. "Now we are living from it." He estimates his company does three hundred such jobs a month at the moment. However, Sakurai feels that the company will be well positioned when the economy picks up. He believes he will be able to gear up for big projects much faster than competing translation companies. If and when the hefty contracts start coming in again, he says he can double or even triple capacity in two months, just by plugging more workstations and terminals in the network and hiring new help. This year, IBS is just breaking even; Keizo Sakurai is biding time until things get better.

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