Machine Translation Finds a Home at Mitel

The road to machine translation is paved with good intentions. How often have we heard the ambitious goals and grandiose claims of MT vendors, only to be brought back to reality with a rather unceremonious thud?

In the past, machine-translation vendors trumpeted their wares while having precious few reference accounts to match. The motto of the state of Missouri—"Show Me"—seemed largely off-limits to the general public.

But as the public has grown savvier, the MT vendors more realistic, and the technology itself more user-friendly, machine translation can point to some impressive installations in the field.

Case-in-Point: Mitel

Today's object lesson comes from Mitel, a Canadian high-tech growth company with a burgeoning demand for translation. Their story starts a handful of years ago, when the company's management—largely unaware of the state-of-the-art in language technology—felt there must be a better way. Although the company's internal translation department had made advances in using automated language tools, it still required one-and-a-half years to produce a non-English version of an English document, including online help and other support information.

When Larry Martin took the helm in Mitel's Translation Department four years ago, his mission was daunting (some would say preposterous): to simultaneously cut time-to-market for the non-English versions of the company's documentation, and simultaneously reduce translation costs. All this, of course, while improving quality.

Beyond the hype: some real-life numbers behind a real-life machine-translation installation.

Initially human translators handled all translations (German and French were the main target languages), but the need for greater speed and consistency led the company to investigate automation.

Doing Their Homework

Mitel began a doomed romance with automated translation in the early 1980s, when they installed a Weidener MT system. "This was a very early release software and its implementation left much to be desired," said Martin, with no lack of understatement.

With Mitel's move to a VAX platform, Weidener could not keep up and its days were numbered. By the early 1990s, the daunting volume of translation led the department to reconsider the issue, since hiring more people alone could not keep pace with the problem.

The translation manager at the time considered other translation software. The package that finally prevailed, Logos, was initially rejected, since it was tied to a Wang computer. Several years later the manager saw the same software running on a Sun workstation, integrated with Interleaf Publishing, the software Mitel had been using. Sun and Unix were becoming standard at Mitel, so the door was open for Logos to take center stage.

Devil in the Details

Before purchasing an MT system, the company examined five issues—cost,

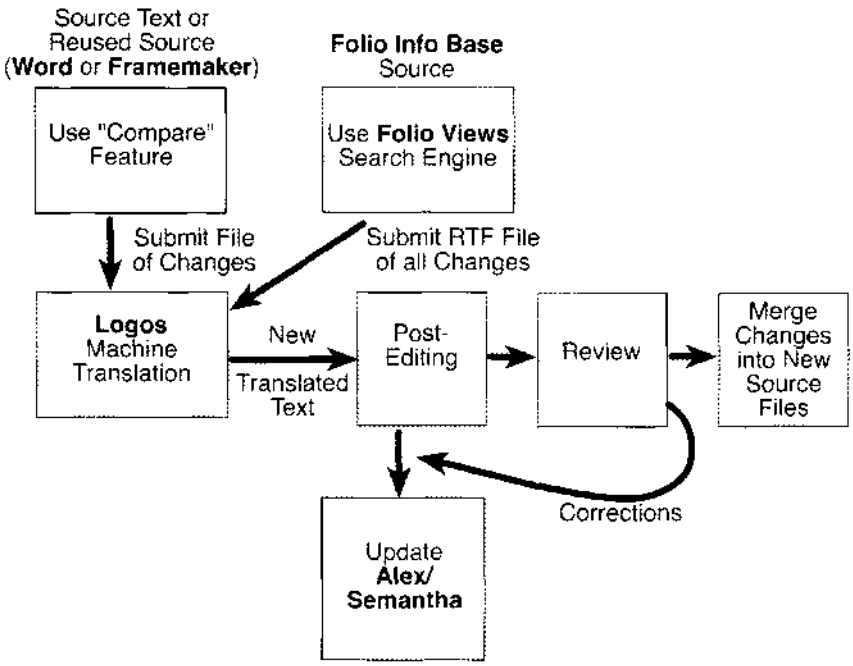
CAPACITY PLANNING: Before and After MT

BEFORE MT

Fiscal Year (April-March)	Pages	Translators	Running Average
FY 95	1,436	1	1,436
FY 96	747	1	1,091

USING MT SYSTEM

Fiscal Year (April-March)	Pages	Translators	Running Average
FY 97	2,710	1.8	2,710
FY 98 (through December)	2,566	2	3,015



translation requirements, productivity or translation turnaround time, ramp-up time, and translation quality.

By investing in the software, Mitel concluded it would save 50 percent over traditional methods. The initial outlay was US$95,400 for 880,000 words annually. The current cost of annual maintenance for the French software is estimated at US$7,350.

During evaluation, Mitel estimated it was paying $0.34 per word internally for a translated word, or $70 per page. Estimated per-word cost using automated translation software would be a mere $0.03 (including no human intervention).

Translation Requirements

Mitel calculated that on an annualized basis their requirements came to 51,000 words in French and 408,000 words in German. Capacity without the new software would be only 300,000 words each, presenting a painful shortfall.

Translation volume in 1997 was double that of 1996: projects that once hovered around 100 pages were being superseded by 1,000 to 2,000-page tomes (see table).

Mitel realized at the beginning of this process that there would be a considerable ramp-up time while people learned the system, and while Mitel "trained" the software with the company's terminology and usage.

Martin says it's hard to explain ramp-up time to management, who expect an immediate result the moment the software boots up.

Translation Quality

Mitel believed that its translation quality would increase by embedding specific customized dictionaries in the software. According to a report prepared by its translation department, Mitel noted "when external agencies work on our documents, they are not familiar with Mitel's products or even with the telecommunications industry." By automating the process, the software at least applies the terminology consistently.

> According to Martin, the company has cut costs 38 percent, achieved faster turnaround time, and improved the quality of its translations.

Getting Under Way

Mitel installed Logos in 1996. Their process begins with FrameMaker documents, for which the system has a customized filter. Mitel required nine months to customize the Logos dictionaries to their specific terminology usage.

Another productivity boost came when the company purchased a Remote Client Software module, which allowed technical translators to telecommute. The company now has a senior French translator and a contract translator who work remotely from Toronto.

Even with the benefits of automation, "there are still some unresolved issues," notes Martin. These include the desire to see the Corel Draw illustration annotations translated via the Logos server in a DRW-compatible format.

Plans for the Future

As for new projects, the company is publishing English technical documentation in CD-ROM format, using Folio Views electronic-publishing software. The information databases (infobases) created by Folio Views can easily flag revisions using searchable fields. The translator uses Folio's search engine to find all revisions and, within seconds, can save the revisions as an .RTF file. This .RTF then gets submitted to the Logos server for translation. Also on the horizon: research into a translation-memory system.

About Mitel

Mitel was founded in 1973 and designs, manufactures, and markets microelectronic systems, subsystems, and components. Mitel's headquarters are in Kanata, Ontario ("Silicon Valley North") with several additional North American offices, as well as offices in Europe (Wales and Sweden) and Asia (Hong Kong). 1996 sales were C$696 million; the company currently has 1,600 employees.