

World's biggest translation order?

by Geoffrey Kingscott

A new translation company has been specially created to process what could well be the largest translation order in the world, to translate documentation for a major Canadian defence order for new frigates from English to French.

The new company, Lexi-tech (no connection with the Brussels-based international group called Lexitech, the similarity of name being merely a coincidence) is part of the Irving family empire — the Irving family own many enterprises in Canada — and the translation requirement arises out of the \$6.3 thousand million contract to build 12 frigates for the Canadian navy, placed with another Irving company, Saint John Shipbuilding Limited. A stipulation in the contract was that the documentation for the frigates should be completely bilingual. The translation requirement is said to be 600,000 pages of technical documentation, or 125 million words, and the initial documentation contract is for \$21 million (for 100,000 pages). It is estimated that actual translation is about 40% of the whole job, the rest involving complicated documentation processing. Lexi-tech is also seeking additional clients in the defence and aerospace industries and related fields, to supplement its work on the frigate contract.

The mission of solving the translation requirement problem was entrusted by Saint John Shipbuilding to two of its executives, *Ronald Fournier*, vice-president of finance, who is now president of Lexi-tech, and *Larry Rogers*, a systems analyst, now executive director for operations and development. They first investigated how large volumes of translation were being handled, especially by translation companies. "We looked for two and a

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half years to try to find a translation house who could handle this sort of volume", Larry Rogers told *Language International*, but the indications were that it would take some 40 to 50 years — by that time the ships would probably be rust buckets!".

It was therefore decided that automation was necessary, which would also solve the problem of consistency of terminology over such a huge project, and Mr Fournier and Mr Rogers looked at various machine translation systems, including ALPS, Weidner, Smart, METAL, SYSTRAN and Logos.

They finally short-listed Logos and Systran, which from the systems technology and quality of output aspects, they found both very good, but their final choice went to Logos, which they felt was "more attuned to Canada" and promising better support (Logos now has offices in Ottawa and Montreal). The Irving finances put in \$3.5 million for equipment, and the company also received \$2 million dollars in a federal/provincial grant.

As the Irvings, whose enterprises are mainly based in New Brunswick, wanted the company to locate in the province, in the Atlantic seaboard region, the town of Moncton was chosen. The new company has taken over a floor in Moncton's oldest building, a former large cookie (biscuit) factory which dates back to 1884.

It is not only the translation process which has been automated, but also the document processing, in particular the handling of graphics. An

English document, complete with captioned drawings, can now be scanned in, the captions noted for translation, taken off the drawing, and the French version put in. The company has carried out a sophisticated marriage between Interleaf advanced electronic publication software, which is particularly adept at the handling of graphics, and the Logos automatic translation system.

In general the system scans in English text, produces an automatic computer translation, which is then checked by the company's translators and editors, and re-checked by technical specialists.

The expectation is that by 1991 Lexi-tech will be translating 100,000 pages a year as its lexicon of technical terms expands from the present 85,000 terms to 150,000. Over one-half of the present terms recorded are devoted to military and defence-related terminology, and include a 5,000 term NATO glossary.

Another reason why it was felt that a new company was needed to process this work was security, which is obviously very tight on such a major defence project. For particularly sensitive work a screened room is available in the centre of the operations, locked off from the main operation, with the walls lined with what looks like silver paper, and the incoming and outgoing cables specially protected, so that not even the most sensitive outside detection device can pick up the signals and computer input being generated.

At present Lexi-tech employs some 60 people, of which 27 are employed in the Linguistic Services Department, 16 of them being translators and five revisers; other staff are involved in administration, data cap-

ture, document management, quality control, and in the TACT (Technical Accuracy Check of Translation).

Lexi-tech lay great stress on this technical checking by experts. When dealing with things like weapon systems, it is obviously crucial to have 100% accuracy, but Mr Rogers believes that customers do need to rely on the translation company to get the target text technically correct. "The buyer", he says, "does not know what he is buying; these people know they have to bite the bullet and trust us; it's no use us saying 'it's not our job'."

The present staffing total is expected to expand considerably. In the two weeks preceding the visit of the *Language International* representative, 12 new workstations had been installed, and we saw more computers were waiting to be unpacked and put into position.

The process of producing target language documentation at Lexi-tech goes through various operations, which include

- Document Management, which is a supervisory, quality control and progress-chasing operation;
- Data Capture, which records the original text and graphics electronically with Kurzweil optical readers and with Ann-Tech graphic digitisers (there are only some half dozen of this type-rolled, software driven, costing something like \$100,000 — in operation in the world, capable of taking in drawings 40 inches wide by 19 feet long);
- Formatting, which creates style sheets to customer specifications, using Xerox and Digital Equipment Corporation hardware and Interleaf graphics software of very high sophistication;
- Translation, which includes both the automatic translation by Logos and post-editing by professional technical translators;
- Technical Accuracy Check, which involves comparative reading of the English and French by technical experts who have not been involved in the previous, translation, phase — it is

their job to certify the technical accuracy and consistency of the text;

- Graphic Consolidation and Assembly, which identifies and reunites illustrations with the corresponding text;
- and Reproduction, which outputs the final formatted bilingual text and graphics using laser technology with a minimum resolution of 300 dots per inch.

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Obviously Lexi-tech's set-up is geared to large jobs. Larry Rogers told *Language International* that they had to turn down jobs which they were offered of some 30 to 50 pages. A contract would have to be in excess of 1,000 pages to make it worthwhile.

The company, which started off with two employees, expects to increase its workforce to 120 employees in the near future (space is set aside for that number, and they will staff up as necessary), and is starting to look world-wide for projects it can handle, particularly where big industrial firms have large volumes of translation, English to French, to process. Subsequently it will extend its work into other language pairs. This is however for the future; just at present they have enough work to tackle: "Our bucket is full right now", as Mr Rogers puts it. At present they have work scheduled to last them five years, but they are going to try and do it in two years.

"This year, 1989, is really our first year of production. We had some three months of training, where the translators were getting used to fully automatic involvement, and we were looking for translators. "We have shown we can work quickly. We had a project of 1300 pages for national defence. We pro-

duced it well under cost and well under schedule. In fact we were able to turn it round in a month and a half."

Training a translator to use the machine translation equipment takes about four days — Lexi-tech, by starting from scratch, were able to recruit only translators working in a computerised environment. A post-editor can produce about 2,000 words a day, rising to 4,000. Costs at present are something like \$100 a page, or 25 cents a word, and it is hoped to reduce this to 18 or 19 cents a word by 1990 or 1991.

We talked to reviser *Jean-François Laissus*, who started with the company as a translator, who was just getting used to the new terminal he had received the week before. The translator, he emphasised, had to lose his fear of the machine to use it to its full capacity. One of the most rewarding aspects of his job was the collaboration in improvements to the machine translation through feeding back problems.