

Lightbulbs and Logos

When German lightbulb manufacturer Osram was faced with a substantial - and unexpected — translation burden, it put MT in the hands of authors of its texts — engineers.

While the vast majority of MT users use MT for translating technical manuals, there is a small but growing contingent of users using the technology for different applications, in particular to meet internal information dissemination needs. This application of MT is still limited but has tremendous potential.

When Osram, a subsidiary of Siemens which manufactures light bulbs, acquired us company Sylvania from GE nearly two years ago, it was suddenly faced with a formidable technology transfer challenge. The acquisition brought with it nearly thirty manufacturing sites in the US, as well as plants in Brazil and Japan, and these obviously needed access to Osram R&D - and vice versa.

As Wolf-Jürgen Wagner of Osram's information technology division explains, when Osram's German engineers were faced with the need to translate large quantities of technical texts into English, they cried "Help!" Wagner started to investigate MT, embarking upon pilot tests of Systran, Logos, and Metal.

"Logos and Metal turned out to be fairly similar in terms of grammatical coverage," says Wagner. Each has its strong and weak points." In the final tally, Osram, somewhat to the dismay of the Sietec Metal group (both Osram and Sietec are subsidiaries of Siemens), went with Logos for a number of reasons. For one, Logos's more flexible licensing agreement meant that only one system could be installed for all Osram users in Germany; according to Wagner, at the time a Metal license precluded making the system available to remote users via a network gateway (a Sietec representative says that this restriction has since been relaxed). For another, the Logos core dictionary was more than twice the size of Metal's. Moreover, Wagner felt Logos's particular approach best suited the Osram environment. Metal offers an interface and tools for modifying the lexicon which is second to none, but for Wagner's organization it was in fact too much of a good thing. While the Osram engineers are not linguists, they do need to be able to add terms on a regular basis, but there needed to be some sensible limitations, for Wagner was clearly aware of the perils of adding lexical entries incorrectly, particularly verbs. In short, this concern carried the day. Alex, the dictionary updating tool of Logos, doesn't allow users to wreak as much havoc as does its Metal counterpart; it is safer in the hands of nonlinguists, Wagner believes.

Osram initially started with the German-to-English system. To get up to speed, Osram shared with Logos the job of entering in the Logos lexicon's approximately four thousand terms pertaining to materials science and manufacturing processes related to the light bulb business. Currently, Osram adds ten to twenty new terms a month, many of which are abbreviations, as well as administrative details, such as the names of ever-changing departments and individuals.

To bring Logos to the engineers' workstations, Osram originally implemented an ad hoc scheme for passing jobs to the MT server using Interleaf's "desktop" interface. More recently, however, it has deployed the new client software that Logos has developed for Unix and Windows network workstations. Via the network, the engineers run their Interleaf texts through Logos and check the output. Rather than post-editing the output, they will often tweak the original and resubmit it to Logos. A welcome side effect of this, says Wagner, is that it tends to improve the German original. The central Logos system in Munich is available to a large number of engineers at Osram's other German

labs.

More recently, Osram has set up an English-German system to facilitate the transfer of information the other direction across the Atlantic. In this case, it isn't the creators of the texts who oversee the MT process but the recipients. While most of Osram's German engineers can read English, there is the need for rough translations to circulate among marketing people and others who may not be able to read these texts in the original. Initially, Wagner was less satisfied with the German output, but he suspects that it may be an installation problem, that some of the semantic rules may not have been configured properly, and hopes to have this solved shortly. Whether having non-native speakers of the source language manage the translation process proves to be a hindrance will only become evident over time.

Osram has operations in other countries, notably Italy, and Wagner says that further down the road other language pairs may be a possibility. At Osram, Logos satisfies a latent demand for translation, one which would not be ordinarily satisfied by professional translators, and hence reflects an important new growth area for commercial MT.

Osram, Zentrale Informationsverarbeitung für Forschung und Entwicklung, Hellabrunner Strasse 1, D-81543 Munich, Germany; Tel: +49 89 62 13 33 24, Fax: +49 89 62 13 30 81