

Title: Translation of Engineering Documentation with METAL

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Abstract:

Switzerland's mechanical and electrical industries export up to 90% of the products developed in the country. This means that a large percentage of the technical documentation has to be translated into English. Hence Siemens selected a Swiss company, Compulex in Zurich, to operate the first test facility outside Siemens to evaluate the machine translation system METAL.

Compulex is specialized in multilingual technical documentation. One major activity is the translation of complete customer documentation for complex systems for leading companies such as Brown Boveri. Another is that of setting up terminology for specialized fields (an example is the "Dictionary of Micro-electronics & Micro Computers" produced for the Society of German Engineers).

The METAL pilot facility at Compulex has been in operation since February 1987. After a start-up period of roughly 3 months, the installation has successfully completed several translation jobs for Swiss industry, e.g. manuals and test reports for a new product range to be marketed internationally for Brown Boveri as well as licence manufacturing documents for Contraves, a company of the Oerlikon-Buehrle group. In the latter case, the first 300 pages of the 22,000-page job have shown that the quality of machine translation can reach a high standard, providing the system - in particular the system lexicon - is adequately tuned to the subject field and phraseology of a specific application.

Initial experience shows that machine translation of technical documentation has the following advantages over conventional methods:

- Lead time, i.e. the total time required for producing the documentation is drastically reduced; in practice, lead times of only 10 days for a 1000-page document can be achieved.
- Consistency of terminology and phraseology is significantly improved. In the case of complex systems employing advanced electronics and computer technology, this improved consistency results in improved functionality of the documentation.
- Overall cost are significantly lower and no additional word processing is needed to attain the page format of the original document. Considering that up to 40% of the total costs of a translated document are due to word processing, overall costs are at least 40% lower.