

(RID). A patent for RID has been filed. It occurred to them that such a database, with its capacity to store and retrieve large amounts of lexical information, and with its fast action look-up facility, would be suitable for machine translation. Their new system, written in the computer language Pascal, and which they are calling *Winger 92*, and which they consider to be a fourth generation linguistic tool, is the result.

The system, which includes 90,000 entries English to Danish, and a further 90,000 entries for the Danish to English version which is also being developed, does not retrieve words alphabetically; that is to say it does not take longer to retrieve a word beginning with a "z" than one beginning with an "a".

The speed of translation of *Winger 92* in batch mode is two A4 pages a minute.

When the system finds a homograph (a word which may have different meanings, such as *chip*) it will display the various possible meanings on screen. The strength of the system at present seems to be in its capacity to store terms, which can include phrases of unrestricted length.

Because every user has his own individual vocabulary, he is given the possibility of adding this vocabulary, or modifying the existing vocabulary, by the use of something called Acquired Translation Ability (ATA), or Tillært Oversættelseevne in Danish. This enables the user to alter the suggested screen translation, working in interactive mode, and the system then will adopt the newly acquired version.

There is no limitation on the length of phrase which can be entered, but the developers point out that shorter phrases, particularly single word phrases, are more likely to recur in future texts. The longest string identified is translated, so that *butterfly valve*, if entered in the system, would always be translated as such even if *butterfly* and *valve* were also in the sys-

tem as separate words. The system does not appear, at least at this stage in its development, to attempt any grammatical analysis of language or disambiguation of the source text.

The English source text and the Danish target text are displayed side by side on the screen so that the Danish can be quickly post-edited. An option is an interlinear print-out.

The latest information we have is that Winger Consult, a division of Winger Holding A/S (the textile company) has been established as a new separate company called Winger Consult ApS. They have developed an interface to WordPerfect which means that the input file could be a fully formatted WordPerfect document. The interface preserves the structure, layout and content of a WordPerfect document which means that the output file is preserved in relation to fonts, headers, footers, etc.

New MT system for Danish

Winger Holdings A/S, of Virum, in Denmark, are about to launch on the market an English to Danish machine translation system of their own design.

Winger is a textile company which became involved in software development when it computerised its own operations. It began its involvement with electronic data processing in the 1970s, before the PC era, and they were able to develop their own book-keeping system. One spin-off was the development of a database which has a particularly efficient method of storage and access, and which they called Reduced Information Datastructure