HICATS/JE FOR RPI'S JIRS

The Research Policy Institute (RPI), a multidisciplinary unit at Sweden's University of Lund engaged in research, education, and documentation on issues related to science and technology policy, has recently taken the plunge into trans-lingual information tracking by signing up Hitachi Europe (UK) to support "research" into Japanese to English machine translation.

The project's target is to be an information retrieval system, JIRS, capable of digging around in Japanese-language databases in Japan and transmitting first order query information back to the user in a translated form. Mobilized for the job is HICATS/JE, the machine translation system developed over the past ten years by Hitachi. This UNIX system runs on a proprietary Creative Workstation 2050 with split screen pre- and post-editing facilities.

By considerably beefing up both dictionary resources and the case-grammar-based syntax processing algorithms, Hitachi Europe's Software Development Department and Hitachi's Japanese AI Department hope to get the system to produce acceptable quality translation of bibliographical data. The team say it will be using a special *title translation feature,* presumably a restricted domain grammar with low tensed verb occurrence, minimal personal pronoun usage, etc., requiring fewer passes and delivering rapid results to end-users gazing at their terminals in Europe. In turn, they can decide whether or not they require a full text (manmade) translation of the document in question.

RPI currently accesses a bevy of Japanese online databases, including COSMOSNET (circa 900,000 Japanese companies), NIKKEI SOGHOBAN (financial and corporate info plus newspaper articles), HINET (scitech, finance, newspaper, and journal databases), PATOLIS (Japanese patent info), ELNET (newspaper and journal articles), and JOIS (scitech data). Following trials with a prototype MT application, using a PC hooked up via public switched lines, RPI realized howI much work had to be done to get satisfactory results from MT-assisted databank brows-ing across these two remote language family members. Research on JIRS began just over 12 months ago with sponsorship from such local heavyweights as defense technologists Bofors, electronics giant Ericsson Telecom, ball-bearing king SKF, and hightech weapons systems developers Swedish Ordnance. This abundance of military industrial might is compensated for by the presence of a number of environment-conscious civilian industrial concerns.

The overall architecture of the project in itself is not completely new. A number of the MITI-supported Japanese R&D projects carried out by computer-industry leaders, such as Fujitsu, Toshiba, Sanyo, Sharp, NEC, have thought of ways of putting their MT engines to the test as information retrieval aids (rather than full-text documentation translation systems) in the English language-Japanese language scitech scramble. Fujitsu, for example, has proposed its ATLAS II system to a number of potential partners in Europe (including the CEC) with the aim of providing Nihongo-deprived researchers with access to Japanese information. Another actor is the Japanese Systran Corporation, which has also invested plenty of yen in testing its rig on a Japanese scitech database over the past years with a hope of serving the cause of trans-lingual information exchange. Whether the RPI/Hitachi venture will prove an ultimate success remains to be seen. But if Hitachi manages to link the MT module to European users via its advertised 40 Gigabit per second data transmission lines, delivery will at least make up in speed for what it lacks in accuracy.