Canadian Engineering Firm Celebrates 60th Anniversary

Acres International Limited, a leading consulting engineering firm celebrated its 60th year of incorporation in June.

It has grown from a modest engineering firm specialized in hydro electric projects to a major multidisciplinary consultancy firm with projects and offices located throughout Canada and around the world.

The company was founded in 1924, when Dr. Henry G. Acres resigned his position with Ontario Hydro to establish a private engineering consulting practice in Niagara Falls, Ontario. It was officially incorporated two years later in June, 1926. The Great Depression limited the growth of the company, but considerable expansion occurred as a result of defence-related projects during World War II. The immediate post war era saw steady growth and diversification. Today, Acres International is an employee-owned professional planning, engineering and management services company. The firm has successfully completed thousands of project assignments in Canada and in more than 70 countries throughout the world including ASEAN.

The sectors served by Acres have grown from its early emphasis on hydro-electric engineering to include water resources, agriculture, air, transportation, iron and steel, and general industrial engineering.

The company provides comprehensive, multidisciplinary services from conceptual and planning studies through final engineering, project and construction management in hydro electric engineering. State-of-the-art engineering facilities, a laboratory and computer-aided design and drafting system are available in-house. The company handles a range of projects of all sizes all over the world.

Among Acres' recent projects are:

Chao Phraya and Mekong River Basins Study, Thailand (1980)

A comprehensive study of these river basins by Acres resulted in improved water management practices in Thailand's principal rice growing areas.

Advanced Light Rapid Transit System (ALRT), Vancouver, BC (1986)

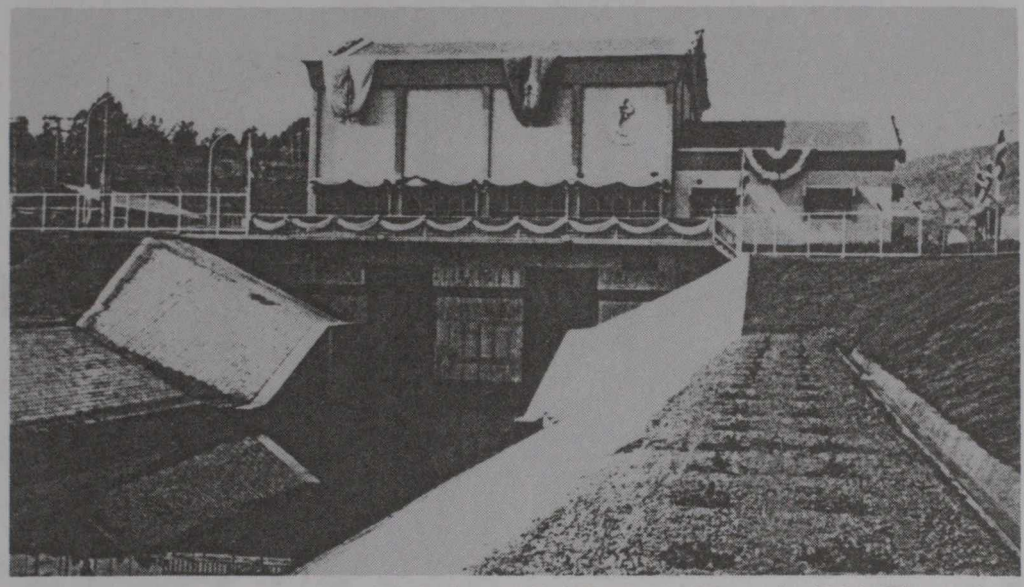
Acres acted as engineering manager for the development of this high-tech rapid transit system. The work involved planning, design and civil engineering, cost and schedule monitoring. Acres also performed work on the Toronto, Montreal and Calgary rapid transit systems.

Chamera Hydroelectric Project, India

Acres is providing design and construction management on the Chamera project as a member of a joint venture. The 540-MW development is located in the foothills of the Himalayas in an area of high seismic activity.

CIPM – Yangtze Joint Venture, People's Republic of China

As partner in a joint venture, Acres has been awarded two further contracts following the successful completion of the Gehe Yan hydroelectric project feasibility study. The first involves preliminary general arrangements for the 5000-MW Longtan hydroelectric project and the second examines massive cofferdams and construction equipment required for the proposed 13,000-MW Three Gorges hydroelectric project on the Yangtze River.



The Mae Ngat power project in Thailand officially opened in early 1986. The station generates electric power during release of water from an irrigation reservoir. Acres International Limited provided feasibility studies and assisted the Electrical Generating Authority of Thailand to carry out design with construction supervision.

Tian Ma Takes Off

The most exciting Chinese text/word processing system available was unveiled on the Singapore market on June 2 1986, in a presentation by International Geosystem Corporation of Canada (IGC) to an audience of 85 invited for the occasion by the Canadian High Commission. The system, named Tian Ma by its developer IGC, is able to convert instantly from the romanized or pinyin form of Chinese to the traditional Hanzi characters. Operating at a speed of 100 Chinese characters per minute, it is 99% accurate.

Tian Ma is the result of several years of development work by IGC's Dr. Peter Leimbigler. Dr. Leimbigler has the dual distinction of being both a renowned linguist – he is fluent in amongst others Mandarin, German, French, Japanese, Russian and English – and a computer expert. Dr. Leimbigler is a linguistics professor at Malaspina College in British Columbia, and has among other things been involved in teaching Chinese translators from China the skills necessary to become technical translators.

During his presentation in Singapore, Dr. Leimbigler impressed his largely Chinese speaking audience with his fluency in Mandarin, and then went on to demonstrate the fluency of Tian Ma. One of the strengths of the Tian Ma system is that it eliminates the homonym problem. Spoken Chinese uses only 400 phonetics (or sound combinations), and there are therefore many words which sound the same but whose Hanzi characters differ. In pinyin, this problem is overcome by the use of tonal marks. However, the Tian Ma system uses a contextual discrimination approach, and is programmed to supply the correct Hanzi characters based on the context of the pinyin input without the use of tonal marks.

The Tian Ma system is contained on a ROM (Read Only Memory) circuit board which can be added to any IBM PC or PC compatible computer. Production in 1986 is forecast at 6000 units, and in 1987 at 50,000 units. The potential is huge, there being at present 100,000 IBM PC's and 500,000 IBM compatibles in China alone.