

Singapore seeks global role

While some nations consider protecting their domestic markets from dominant software-producing nations, Singapore is trying to become such a power itself. "Our vision of the Singapore software industry is one where both local companies and multinational companies work closely together in strategic alliances to develop and offer software expertise to the regional and international markets," said Tan Chin Nam, director of Singapore's National Computer Board.

The NCB directs Singapore's informatics development. It has encouraged a "trend of local R&D institutions set up by the government collaborating with the industry in software development," Tan said. International companies are attracted to Singapore because of lower wages, a labor pool of 8,000 computer professionals, and the fact that Singapore is an English-speaking nation.

There were only 850 computer professionals in Singapore in 1980, so the government began an extensive education program, Tan said. The result is 1,000 new computer professionals per year, he said.

"By and large, our local software companies are still small and lack the marketing experience and infrastructure to tackle world markets," Tan said, although "most have the capability within the regional market." Singapore's strategy is "to encourage them to strike up partnerships with multinational companies who have the marketing channels worldwide and can help bring locally developed software into the international market," he said. As examples, Tan cited the Picture-Oriented Software Environment CASE tools being marketed in the US and Europe and a locally developed freight-management package that Birkhart International, a worldwide freight-forwarding company, will use globally.

"While many [multinational companies] are motivated by the proximity to the Asia Pacific marketplace to develop Asianized versions of their various software [products], we are seeing some of them using Singapore as a site for their strategic worldwide software development," Tan said. He cited Hewlett-Packard's development center for network-management software, Data General's software center for Asianized versions of its office-systems software, and IBM's partnership with the National University of Singapore to create the Institute of Systems Science.

—Galen Gruman, *Soft News Editor*