Database Management System

A decade ago, Boeing Computer Services developed for NASA a database management system to store the voluminous data for analyzing the heat shield tiles on the Space Shuttle Orbiter. Called RIM (for Relational Information Manager), the system was developed by a team of scientists led by Wayne Erickson and Dennis Comfort.

In 1981, Erickson founded Microrim®, Inc., Redmond, Washington, a company originally focused on marketing a microcomputer version of RIM; Comfort joined the firm and is now vice president-development.

The team developed an advanced spinoff from the NASA system they had originally created, a microcomputer database management system known as R:BASE 4000, introduced in 1983. Subsequently, Microrim added many enhancements and developed a series of R:BASE products for various environments. R:BASE is now the second largest-selling line of microcomputer database management software in the world.

Here is one of many examples of its utility:

On March 24, 1989, the tanker *Exxon Valdez* struck a reef and spilled millions of gallons of oil into Alaska's pristine Prince William Sound. Alaska's Department of Environmental Conservation (DEC) was on the scene quickly with a computerized system to track and map the spill. The system—called GeoREF—links a spatial database with Microrim's R:BASE so that topographical data can be combined with data from aerial flyovers, sampling station instruments and individual sitings to produce graphic displays of information needed to allocate manpower and equipment in emergencies.

Within hours of the spill, DEC had in operation a system that tracked the thickness, size and movement of the spill and the land areas and animal populations affected; it also provided information for deployment of spill response equipment. In the top photo, DEC's Jim Slocomb is surrounded by the hard copy information available from GeoREF and other programs. The lower sequence of computer images shows three representative views of the spill's growth over a two-month span; regular updates were produced daily, allowing DEC to keep close track of the spill and alert conservationists to wildlife habitats most seriously threatened.

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