SDE

ESRI GIS Solutions for REAL ESTATE



The Business Challenge: Looking for a new home used to be simple. The family piled into the Buick on a Sunday afternoon and cruised through a new neighborhood looking for houses with curb appeal. Then Mom and Dad called a Realtor to tour their favorites.

Finding Solutions: That was before digital mapping and the Internet began reshaping the real estate market. Today, a dozen or so on-line real estate search services dominate the Internet. Some target buyers in certain niche markets such as ranches or luxury properties. But by far the biggest and busiest is www.realtor.com, the official Internet site of the National Association of Realtors (NAR).



REALTOR.COM offers one-stop shopping for more than a million properties nationwide,

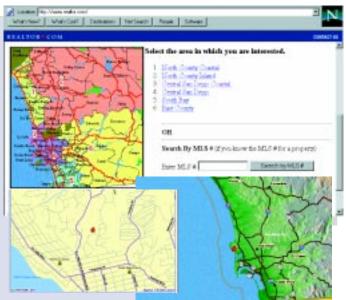
Home Buyers Find Information, Maps On-Line

according to Richard Janssen, president of RealSelect, Inc., Westlake Village, California, the NARsponsored organiza-

tion that operates the service. That's more than 80 percent of the approximately 1.2 million homes available for sale in the U.S. at any one time.

But it's not just the quantity of home listings that draws millions of consumers to the site each month. "We give them an incredible amount of valuable information," explains Janssen. Most listings include not only a color

photograph of the property, but also a lengthy description of the home (architectural style, size of each room, view, etc.) and a suite of interactive maps. Using the System: Users at the site have access to a custom search engine to click a series of boxes on an easy-to-use interface that lists up to 80 different factors (price, ZIP Code, number of bedrooms, lot size, fenced yard, pool, etc.). The search results are displayed in ranked order with a photo of the home, a full property description,



and a "Map It" button that locates the property.

By simply clicking on the Map It button, the potential buyer can pan and zoom through eight different maps that display nearby schools, highways, railroad tracks, rivers, airports, and military bases.

"I think the Map It function is extremely important in helping the consumer visualize where the house is located," says Janssen. "In real estate, it's all about location, location, location. It's crucial for certain home buyers to know the location of schools. Others need to know whether the home is secluded or if it's on a main thoroughfare."

Optimizing Technology:

REALTOR.COM's mapping technology was developed by ESRI's Professional Services Division and uses Spatial Database Engine[™] (SDE[™]) software which enables millions of spatial features to be stored and managed in Oracle® databases. SDE has the ability to integrate with other information technology products used in mapping applications or other applications that require geometric analysis without the mapping component. That is, with SDE, developers can embed spatial analysis in an application without having to invoke traditional geographic information system (GIS) technologies.

SDE quickly sorts through 60+ gigabytes of data to pinpoint the exact location of the home in the context of nearby streets as well as city and regional perspectives. Close-up views show street-level detail, while city views place the red or yellow home icon in relation to nearby communities and freeways. Zooming out to the regional perspective reveals a handsome shaded relief map by Chalk Butte, Inc., that shows where the property lies in respect to hills, plains, mountains, and other geographic features.

Bottom Line Advantage: "The system's ability to produce maps on such a massive scale is SDE software's clear advantage," says Janssen. "SDE allows us to embed our vast geographic database within



our Oracle database management system (DBMS), as opposed to being stored in a separate GIS database. This unified database permits much faster query and display," he adds.

"Mapping has clearly proven its value to real estate," says Janssen. About 15 percent of people visiting the site request maps, he notes, which amounts to more than four million requests per month. "I think in the near future you'll see even more sophisticated data about schools, crime, and the environment available on maps. These support tools will add tremendous value to our service and help the consumer make better decisions," he predicts.

For more information, contact Karen Fulton, RealSelect, 619-285-5830, Web: www.realtor.com. Information on SDE can be found at ESRI's Web site (www.esri.com), or contact ESRI at 1-800-447-9778.

SDE at a Glance: SDE is a highperformance, object-based spatial data application server implemented in several commercial DBMSs providing open access in a client/server architecture.

Software engineers can use the SDE open C-AP1 to develop focused market-specific application using rapid application development environments such as Tcl/TK or Visual C++ $^{\textcircled{8}}$.

Because ARC/INFO, ArcView GIS, and MapObjects software have been integrated as SDE clients, developers can also choose from ARC/INFO Open Development Environment (ODE), ArcView GIS,Avenue, or Visual Basic[®] as development environments.

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