

Go to a Section

Search: All of Technology



[Technology Home](#)

[Circuits](#)

[Product Reviews](#)

[How To's](#)

[Deals](#)

Wanted by the Police: A Good Interface



Thor Swift for The New York Times

Policing Sgt. Thomas Navin of the San Jose Police Department enters data into a patrol car's computer system. The system has baffled some officers.

By **KATIE HAFNER**

Published: November 11, 2004

SAN JOSE, Calif.

SAN JOSE has a reputation as one of the safest large cities in the nation, with the fewest police officers per capita.

Yet a number of the 1,000 officers in this city of 925,000 in the heart of Silicon Valley have been worrying about their own safety of late. Since June, the police department has been using a new mobile dispatch system that includes a Windows-based touch-screen computer in every patrol car. But officers have said the system is so complex and difficult to use that it is jeopardizing their ability to do their jobs.

Officers complain that routine tasks are so difficult to

ARTICLE TOOLS

-  [E-Mail This Article](#)
-  [Printer-Friendly Format](#)
-  [Most E-Mailed Articles](#)
-  [Reprints & Permissions](#)
-  [Single-Page Format](#)

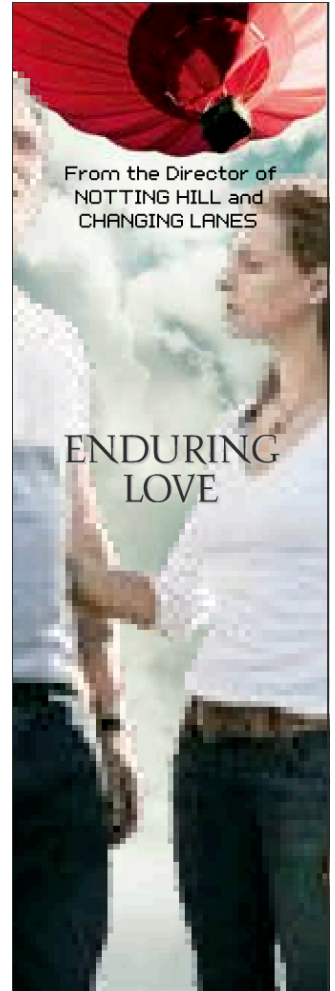
Newsletters

[Subscribe to Circuits](#)

Sign up to receive a free weekly Circuits newsletter by e-mail, with technology news and tips and exclusive commentary by



Advertisement



Click NOW to view the trailer

NOW PLAYING

NYT Store

perform that they are discouraged from doing them. And they say that the most vital safety feature - a "call for assistance" command that officers use when they are in danger - is needlessly complicated.

"Do you think if you're hunkered down and someone's shooting at you in your car, you're going to be able to sit there and look for Control or Alt or Function?" said Sgt. Don DeMers, president of the San Jose Police Officers' Association, the local union and the most vocal opponent of the new system. "No, you're going to look for the red button."

Officers also say they were not consulted about the design of the user interface - how information is presented and how commands are executed using on-screen and keyboard buttons. Many have said they wish the department had retained and upgraded the old system, in place since 1990.

Such complaints have a familiar ring. Anyone who encounters technology daily - that is to say, just about everyone - has a story of new hardware or software, at work or at home, that is poorly designed, hard to use and seemingly worse than what it was intended to replace. Yet because the safety of police officers and the public is involved, the problems in San Jose are of particular concern.

At the heart of the dispute is the question of how much the technology itself is to blame, how much is a training problem and how much can be attributed to the predictable pains associated with learning something new.

Any new technology, whether it is a microwave oven or the controls of a [Boeing 777](#), has a learning curve. And often the user interface, the all-important gateway between person and machine, is a dizzying array of buttons or keys that have to be used in combinations. It can take weeks, sometimes months, of training and adapting for people to become comfortable with a new system.

Police department officials in San Jose have acknowledged that the off-the-shelf system, which cost \$4.7 million, has had some bugs, yet they say the software vendor, [Intergraph Corporation](#), of Huntsville, Ala., has fixed many of them.

"The city and Intergraph have worked together to iron out the software and work-flow issues that sometimes accompany the introduction of a new system," said Alice Dilbeck, vice president for customer services at Intergraph.

And at public safety agencies elsewhere in the country where similar software has been introduced, employees have eventually grown used to the new technology.

David Pogue, the State of the Art columnist.

RELATED

- [User Friendly? Don't Bet on It](#) (November 11, 2004)

TIMES NEWS TRACKER

Topics	Alerts
Computers and the Internet	<input type="button" value="Create"/>
Boeing Co	<input type="button" value="Create"/>
Intergraph Corporation	<input type="button" value="Create"/>
Police Department	<input type="button" value="Create"/>

Track news that interests you.



Circuits: How Electronic Things Work
Price: \$29.95. [Learn More.](#)



TOUCHY - After complaints about the police computer system in San Jose, Calif., a screen displaying activity and orders was changed to reduce clutter. A Code 99 call for assistance, above, requires two keystrokes.

Get the best deal on a new car.

- [Find your deal today!](#)
- [Sign up for DriveTimes.](#)

PHONE SERVICE

and complaints remain, not only among patrol officers but among dispatchers. With the new system, unlike the old, they are unable to perform several tasks at

With the system, officers in the field can receive orders, send messages, write reports, call up maps of the city and, using the Global Positioning System, see not only where they are but where other patrol cars are at any given time.

When first installed, the system was unstable. A day or two after the new system went into operation, it crashed, and for several days it was periodically down. "That didn't engender a lot of trust," said Sergeant DeMers of the police union.

Ms. Dilbeck acknowledged, "That was a really bad start."

When the system was running again, a number of bugs were discovered, said Aaron Marcus, president of Aaron Marcus & Associates, a user-interface design consulting firm in Berkeley, Calif., that studied the new system at the request of the union.

Some of the map information, it turned out, was inaccurate, screens were cluttered with unnecessary information, the on-screen type was difficult to read and officers could not easily perform one of the most basic tasks - the license-plate check.

"This is almost a casebook study of what not to do and how to do it wrong," Mr. Marcus said.

Perhaps the biggest misstep of all, Mr. Marcus said, was that the officers themselves were not consulted beforehand, especially when it came to the design of the interface.

Jakob Nielsen, a principal of the Nielsen Norman Group, a technology consulting company in Fremont, Calif., agreed.

Continued

1 | 2 | [Next>>](#)

[Download Today's New York Times to Your Desktop.](#)

[Caring for Coastal Waters](#)

Help Protect & Restore Marine Life in Georgia Strait. Give Today.
www.georgiastrait.org

[Marine Conservation](#)

UK's national charity dedicated to the protection of marine wildlife.
www.mcsuk.org

[Give Time By Volunteering](#)

Help The Community You Live In. It's Easy, Become A Volunteer Today.
www.timebank.org.uk

OUR ADVERTISERS

[Trade up to DB2- the world's leading database platform.](#)

[Up to 25% off any new Dell Home PC. Click for details.](#)

[Learn more about manufacturing](#)

RELATED ARTICLES

- [Technology Briefing | Hardware: Boeing and I.B.M. Announce 10-Year Partnership](#) (September 21, 2004)
 - [BUSINESS TRAVEL: MEMO PAD](#) (February 10, 2004)
 - [BUSINESS TRAVEL: MEMO PAD](#) (November 18, 2003)
 - [Computer Program That Analyzed Shuttle Damage Was Misused, Engineer Says](#) (August 25, 2003) \$
- Find more results for [Computers and the Internet](#) and [Boeing Co](#)

TOP TECHNOLOGY ARTICLES

- [Wanted by the Police: A Good Interface](#)
 - [Otellini to Succeed Barrett as Intel's Chief](#)
 - [Microsoft Unveils Its Internet Search Engine, Quietly](#)
 - [EBay to Pay \\$290 Million for Dutch Classified Web Site](#)
- Go to [Technology](#)

[Copyright 2004 The New York Times Company](#) | [Home](#) | [Privacy Policy](#) | [Search](#) | [Corrections](#) | [RSS](#) | [Help](#) | [Back to Top](#)