



## TOLLVISION Exact Reader OCR

Real-time OCR for reliable vehicle identification in high-speed traffic

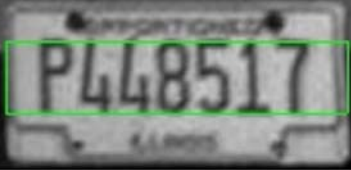


**SAIC's Exact Reader OCR technology reads license plates in heavy, high-speed traffic in real time**

The typical highway toll site sees dozens of types of license plates — a variety of states, styles, colors, backgrounds and graphics, often in poor condition. And new styles appear every day. For an OCR vehicle identification system, it's a real challenge.

SAIC's Exact Reader real-time OCR technology is up to the task. With an array of innovative, intelligent techniques for image enhancement and character recognition, Exact Reader OCR can read a high percentage of plates — even in heavy, high-speed traffic — while minimizing false reads and reducing the need for costly manual review.

With Exact Reader OCR, SAIC's TollVision system can quickly identify vehicles traveling at up to 100 mph (160 km/h), enabling authorities to collect tolls on the open road and react promptly to repeat toll violators, AMBER Alerts™ and other wanted vehicles. For applications where high speed is not critical, Exact Reader OCR can run efficiently in centralized batch processes.



P448517

**Exact Reader real-time OCR  
uses intelligent algorithms  
to read license plates in seconds**

### Exact Reader OCR technology — for fast, accurate vehicle identification

SAIC's Exact Reader real-time OCR technology can read license plates in heavy, high-speed traffic in seconds. The Exact Reader system includes many features to enhance accuracy and performance:

- ◆ **Exact Exposure® cameras.** SAIC's Exact Exposure camera technology optimizes the exposure for every shot to provide high-quality images for OCR processing.
- ◆ **Image enhancement.** To enhance accuracy, the Exact Reader system processes multiple images of each vehicle. Exact Reader enhances contrast and clarity, compensates for bent or skewed plates, and ignores graphics, backgrounds and other distractions. (Original images are preserved for legal documentation.)
- ◆ **Regional tuning.** SAIC's regional tuning process focuses the Exact Reader system at each site on the most common plate styles at the site. The process can be repeated as needed to handle new plate types.
- ◆ **Confidence indicator.** Exact Reader provides a confidence indicator with each OCR result. Authorities can use the indicator to evaluate the need for manual review.

### Flexible and scalable

The Exact Reader system can be installed at plazas, ORT sites and other roadway locations for real-time processing, or in central locations for efficient batch processing. Real-time OCR can be easily added to existing SAIC TollVision systems.

To help toll authorities meet future requirements, the Exact Reader system is highly scalable. For more lanes, heavier traffic or faster results, just add processing power.

### A legacy of success

The Exact Reader system for highway vehicle identification is an application of SAIC's innovative OCR technology — now helping transportation and security agencies identify cargo containers, trucks, cars and other equipment at hundreds of installations around the world.

### SAIC and TollVision: leaders in the field

SAIC's TollVision systems are operating in more than 1,000 lanes at some of the largest tolling facilities in North America. Backed by SAIC's significant investments in technology, production and implementation, the TollVision system brings a unique combination of performance and economy to legacy and next-generation traffic applications.

### Highlights

- Read license plates in heavy traffic at up to 100 mph (160 km/h) in real time
- Support open-road video tolling with or without RFID
- React quickly to repeat toll violators, AMBER Alerts and other wanted vehicles
- Reduce incorrect reads and the need for costly manual review
- Scale up easily to increase speed or capacity

### SAIC Security and Transportation Technology

2985 Scott Street | Vista, CA 92081  
866.SAF.TRAN (866.723.8726) | sectrans@saic.com  
Visit us online at [www.saic.com/security](http://www.saic.com/security)

Energy | Environment | National Security | Health | Critical Infrastructure



© 2009 Science Applications International Corporation. All rights reserved. Exact Exposure, SAIC, the SAIC Logo and "From Science to Solutions" are trademarks or registered trademarks of Science Applications International Corporation in the United States or other countries. All other trademarks are the property of their respective owners. The TollVision system and its technologies are subject to U.S. Export Administration regulations. Diversion contrary to U.S. law is prohibited. This technology may not be exported, re-exported, resold, transferred or transshipped without prior authorization by the U.S. government. TPN 09-0263 04Feb09