



# Vulnerability Assessments of Biometrics & Other Access Control Devices

*The Vulnerability Assessment Team is probably the most impressive physical security research team in the world.*

-- Prof. Ross Anderson of Cambridge University,  
author of the classic textbook *Security Engineering*

## Vulnerability Assessments

The Vulnerability Assessment Team (VAT) at Argonne National Laboratory (formally at Los Alamos from 1992-2007) has conducted vulnerability assessments on hundreds of different physical security devices, systems, and programs. This includes locks, tags, seals, RFIDs, GPS, microprocessor systems, contact memory buttons, electronic voting machines, and biometrics and other access control devices. The VAT has demonstrated how all these can be easily defeated using widely available tools, materials, and supplies, but has also devised and demonstrated simple and practical countermeasures.

In addition, the VAT has provided security consulting, training, R&D, reverse engineering, specialty field tools, and novel security devices/strategies for more than 40 different companies and government organizations, including DoD, DOE/NNSA, DHS, U.S. Department of State, the International Atomic Energy Agency (IAEA), Euratom, and the intelligence community.

## Biometrics

The VAT has devised and demonstrated successful attacks and countermeasures for more than a dozen different biometric devices and systems, including those based on fingerprints, hand geometry, and iris patterns. The VAT did some of the earliest research on iris biometrics.



A multidisciplinary team of scientists, engineers, ethical hackers, and social scientists

## VAT Resources & Capabilities

- Top Secret security clearances
- Access to 2 SCIFs + a new SCIF under construction
- 18+ years of experience with vulnerability assessments
- One-of-a-kind Vulnerability Assessment Laboratory
- 1200 square feet of classified VTR laboratory space
- 2000 square feet of other office & laboratory space
- Unique VAT microprocessor rapid prototyping shop
- Experience with the successful completion of \$25 million of classified & unclassified projects since 1992
- Access to multidisciplinary, world-class science & engineering expertise at all the DOE national laboratories

