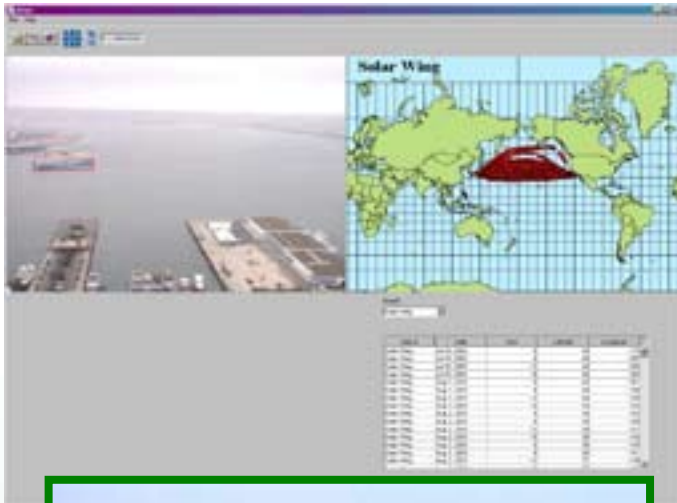


# ORION Information Analysis and Fusion for Threat-Vulnerability Analysis

Applied Software Engineering Research Group



Computational Sciences & Engineering Division

## Problem Statement:

- A major thrust for the U.S. Department of Homeland Security is to create new analytical methods and tools for sensor fusion and the synthesis/analysis of text, imagery, sensor measurements, and other information that are presented in a scenario-based, analyst-driven computational environment.

## Technical Approach:

- ORION is composed of an innovative multi-agent system that can: autonomously search through distributed information sources and retrieve new and updated information; verify the information for temporal currency and structural consistency to maintain a dynamic data archive; determine the value of a particular piece of information as it relates to other pieces; and analyze and fuse information from different sources and formats to provide for discovery of relationships among and between facts and potential threat scenarios.

## Benefit:

- ORION has been developed as an information analysis and fusion system for port security.



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