

**Benefits:** Part of a new lightweight visual analysis effort, the Assessment Wall is a large interactive information display that integrates multiple complementary views of information for situational awareness and provides simple yet powerful analysis operations. Users can customize the views for their data source and interests, stay on top of streaming updates, and ensure they have a shared understanding with collaborators.

# National Visualization and Analytics Center™

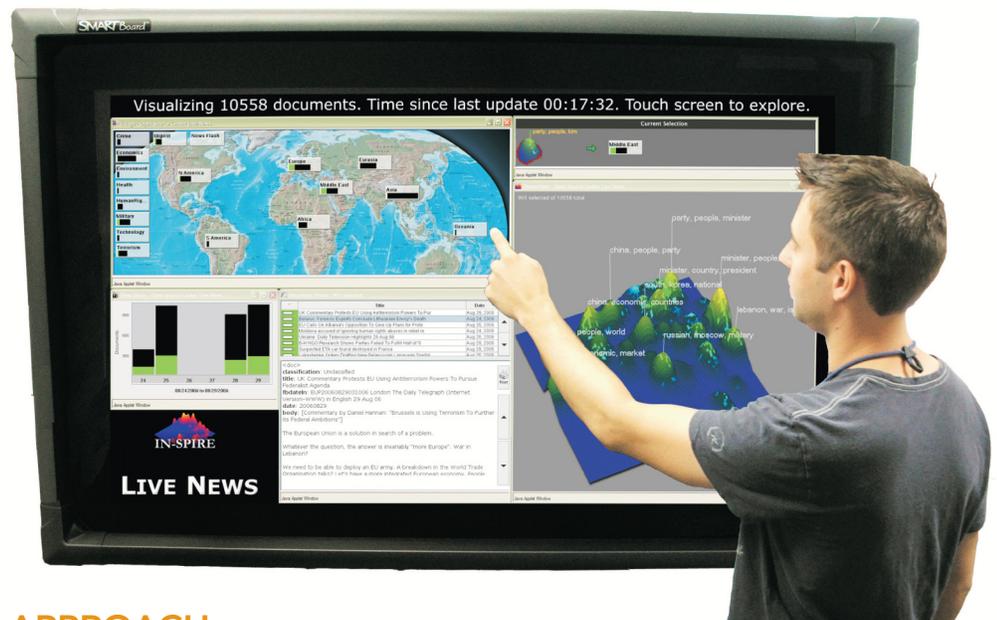
## THE ASSESSMENT WALL

Usable visualization for streaming data

### MISSION NEED

Many organizations need to monitor large, changing information spaces, whether for general awareness, collaboration, or the prioritization of critical information that needs deeper analysis. How did consumer response to the latest ad campaign change last week? What are the latest developments in a regional conflict and which countries are involved?

Visual analytics research offers powerful solutions to support information discovery and analysis, but tools often have complex interfaces that require training. How can we simplify this discourse with information in order to make adoption easier and shorten the time to useful insights and productive analysis? The Assessment Wall is one such effort, designed to help users more easily monitor and explore continually updating text sources, such as news or reports, through a high-resolution touch-screen interface.



### APPROACH

Our goals are to help users find the latest on topics known to be of interest along with emergent and unexpected themes. Additional interactivity enables discovery of relationships and patterns, all in context of the broader streaming data. Usability doesn't have to come at the expense of power and insight.

Early Development

Lab Prototype

Commercial Product

The Assessment Wall consists of linked interactive visualizations for streaming text documents on a high-resolution touch-screen interface. Whereas many visualization applications are designed for expert users, our research effort was devoted to adapting useful visual representations to empower natural interactions with immediately useful insights.

With a singular balance of ambient and interactive support, the Assessment Wall supports the discovery of temporal patterns and relationships between concepts.

Even novice users can maintain awareness of the data, dig deeper into topics of interest for simple analysis, and use the system as a focal point for discussion and impromptu collaboration on work-related data.



The tools can also be modified based on changing needs for different queries, geographical regions, and themes of interest.

## IMPACT

Several ongoing and proposed projects will use the Assessment Wall in operational environments to support the Department of Homeland Security missions. We will be customizing the visualizations to new data feeds and assessing user tasks and needs to provide the most value while preserving the ease of use and cross-functioning of tools. We are currently researching more flexible ways to support customized needs.

Users at DHS headquarters will also be able to navigate a wealth of information on other DHS Science & Technology initiatives and their real-world impacts at Centers of Excellence and Regional Visualization and Analytics Centers.

## Visualization and Analytics Centers



### VAC Consortium Members



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## ABOUT PNNL

The Pacific Northwest National Laboratory, located in southeastern Washington State, is a U.S. Department of Energy Office of Science laboratory that solves complex problems in energy, national security and the environment, and advances scientific frontiers in the chemical, biological, materials, environmental and computational sciences. The Laboratory employs more than 4,200 staff members, has a \$918 million annual budget, and has been managed by Ohio-based Battelle since 1965.

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