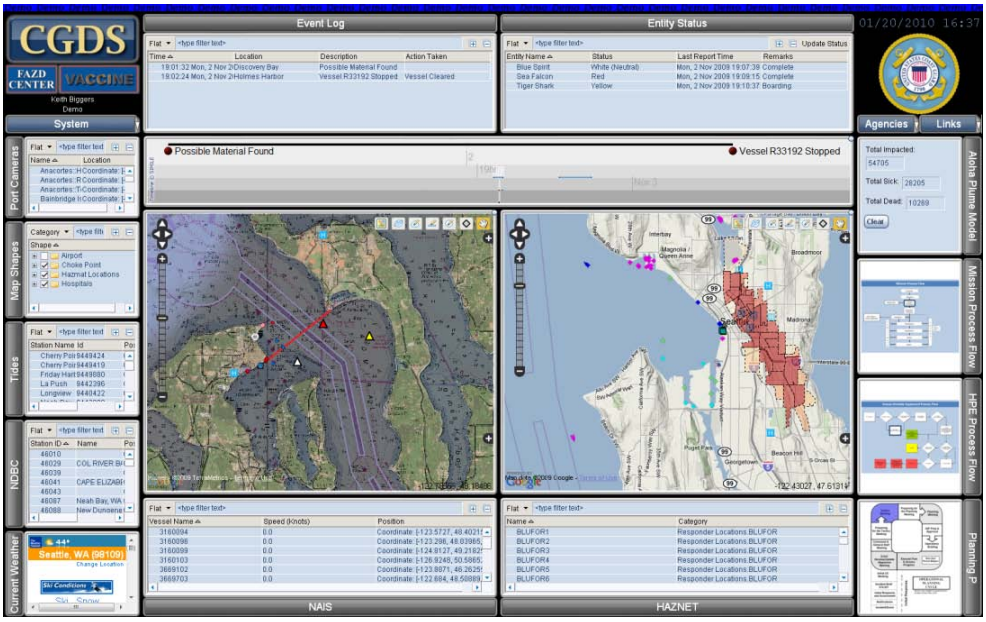
TCAT Texas Center for Applied Technology
Designed to make a difference

Information Dashboards



PROVIDING RELEVANT, DEPENDABLE, REAL-TIME DATA TO FIRST RESPONDERS

Our Information Dashboard Framework (IDF) allows for the integration of distributed information sources into a common operating picture allowing users at different positions and locations, and across different echelons to make decisions based on common information. The live informational components shown around the exterior border may link directly to a data source, involve the synthesis of two or more sources into a new product, or integrate the output of an external application providing a custom visualization product.

Our dashboard concept centers on the notion of service-oriented data sources. These sources can be either local or remote services, and may provide data in an understandable format or involve more complex output from a simulation or visual analytic tool. These data sources can contribute live data feeds, streaming video, geospatial layers, graphical elements or various other types of data.

Using our extensible plugin-based framework, developers can easily build their own custom components for integration into the system. It is capable of supporting the entire emergency response lifecycle (from planning and preparedness, to response and recovery). It can also be used at all echelon levels (including local, state and national) and can be used to support operations, training and analysis-based missions. User-defined profiles can be created for customized views of the current situation.

IDF-based dashboards have been developed for many different domains. They have been used for monitoring and surveillance type applications such as the National Biosurveillance Integration Center's Biosurveillance Common Operating Picture, to support large-scale training exercises such as the Coast Guard Display System, and for many other demonstration applications.

FEATURES

GENERIC FRAMEWORK

Provides a robust framework for developing customizable information dashboards supporting the full decision-making process.

VISUAL INTEGRATION

Allows for the integration of distributed information sources into a common user-defined operating picture.

ADAPTABLE MODES

Capable of supporting a variety of usage contexts including operational, training and analysis-based missions.

CUSTOM COMPONENTS AND PROFILES

Allows for the development of a library of customized components and user-defined information profiles.

PORTABLE WEB-BASED TOOL

Requires only a JavaScript enabled browser and a stable Internet connection, and will run on most current computers.

CUSTOM APPLICATIONS

Utilized to develop a variety of applications supporting different underlying requirements for a diverse range customers.

TEXAS CENTER FOR APPLIED TECHNOLOGY

There are many problems that require the careful and proper integration of applied technologies to find solutions. The Texas Center for Applied Technology (TCAT) was created to focus on these specific problems and to develop effective and efficient solutions. TCAT's core competency is the innovative application of existing technologies and advanced research to solve complex real-world problems.

TCAT's primary objective is to apply and test technologies to address targeted problems and engage basic research as required. TCAT has employees in a variety of locations with the ability to perform research that cuts across multiple technologies, disciplines, and cultures. The Center's employees are knowledgeable regarding customers' requirements and are ready to respond effectively to provide the best value for the customers' needs including expertise in technology insertion, technology assessments and test and evaluation.

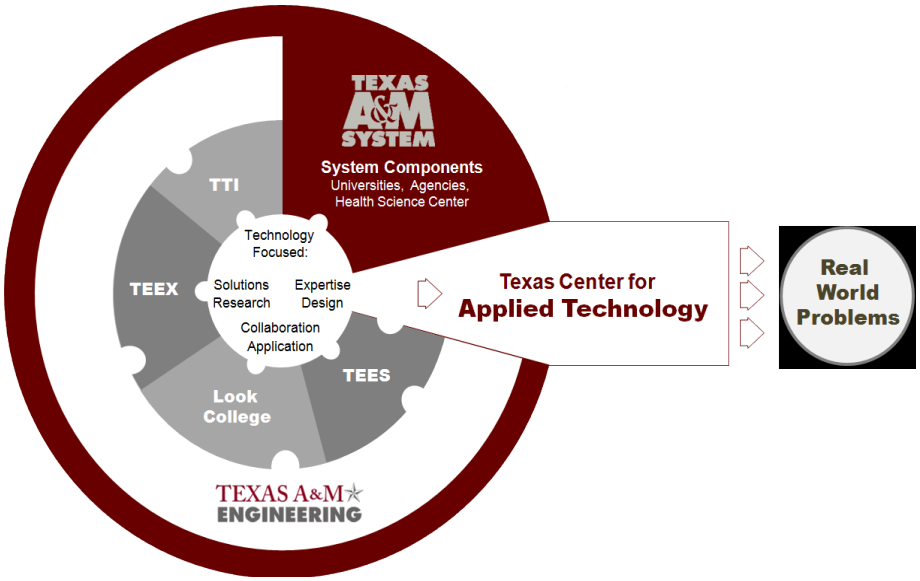
TCAT is part of the Texas Engineering Experiment Station (TEES), a member of The Texas A&M University System. The A&M System is one of the largest and most comprehensive systems of higher education in the United States. Through a statewide network of eleven university campuses, seven state agencies, and a comprehensive health science center, the A&M System educates more than 115,000 students on its university campuses, conducts more than $730 million in research, and reaches another 22 million people through service each year. TEES is the engineering research agency for the state of Texas and conducts over $120 million in research annually. Because of the Center's position within the Texas A&M Engineering program, TCAT's expertise can easily be extended by rounding out its team with world class faculty researchers, as appropriate. TCAT is in an excellent position for collaboration not only with The Texas A&M University System components and their customers but with other universities, institutions, centers, and industry.

TCAT'S CORE COMPETENCIES

Aviation & Automotive ★ Energy Sustainability ★ **E**nvironmental **S**ustainability ★ **I**nformation **T**echnology
Manufacturing & **S**ystems **E**ngineering ★ **M**odeling & **S**imulation
Technology **I**nsertion ★ **T**est & **E**valuation

TEXAS A&M ENGINEERING

Texas A&M Engineering consists of the Dwight Look College of Engineering, and three engineering agencies, including TEES. Texas Transportation Institute (TTI) conducts research and professional education in all modes of transportation. The Texas Engineering Extension Service (TEEX) works to develop a highly skilled and educated workforce and enhances public safety through training, continuing education, and technical assistance.



Director: Jim Wall
E-mail: jim-wall@tamu.edu
Phone: 979.458.7645
Web: http://tcat.tamu.edu

For more information contact:
The Texas Center for Applied Technology
3407 TAMU
College Station, TX 77843-3407