



# Knowledge Management: Simulation Library and Event Library

**The National Infrastructure Simulation and Analysis Center (NISAC)**, is a program of the Department of Homeland Security's (DHS) Infrastructure Protection/ Risk Management Division (IP/RMD), providing advanced modeling and simulation capabilities for the analysis of critical infrastructures and their interdependencies and vulnerabilities. These capabilities help secure our nation's critical infrastructure by aiding decision makers in infrastructure policy analysis, investment and mitigation planning, education and training, and crisis response.

NISAC is a partnership between Sandia National Laboratories (SNL) and Los Alamos National Laboratory (LANL), integrating the two laboratories' expertise in infrastructure disruption/vulnerability modeling and simulation.

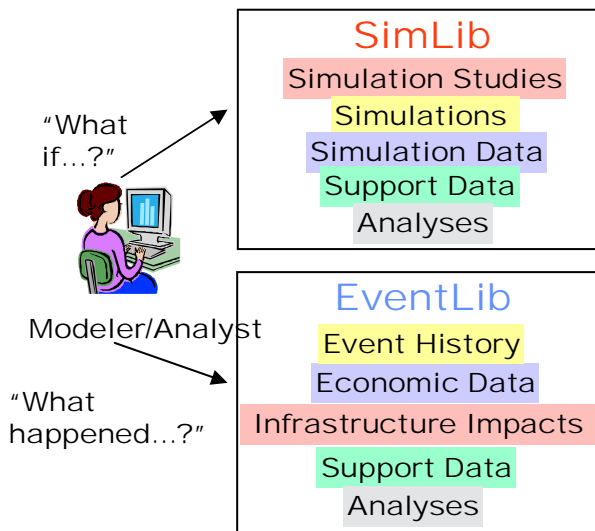
## Knowledge Management

NISAC analysts and modelers require vast amounts of data and information for their critical infrastructure interdependency work. Knowledge management provides an access-controlled, organized, and searchable view on the data for rapid retrieval and update through a suite of web-based tools and programmatic interfaces. The suite of tools currently under development include the KM Portal, the Simulation Library, the Event Library, the Web Search Capture Tool, and the Critical Infrastructure Protection Metadata Database.

## Simulation Library (SimLib)

SimLib stores simulations, analytical model runs, analyses, and all associated data for organized long-term storage and rapid retrieval. With the ability to retrieve studies and analyses that are similar to an input scenario, SimLib facilitates the rapid discovery of related scenarios and supports "what if" assessment, causal analysis, policy analysis, and education and training.

Modelers can use SimLib to rapidly generate new models and simulations using existing models and simulations as templates. A programmatic web services interface allows custom NISAC modeling tools to provide automated interaction with SimLib, avoiding tedious manual data manipulation.



*The Simulation and Event Libraries place searchable access to detailed knowledge of past simulations, analyses, and real-world events at the fingertips of NISAC modelers and analysts.*

## Event Library (EventLib)

EventLib is the real-world event dual to SimLib. It maintains knowledge of current and past real-world events and their impacts on critical infrastructures, and can be used to keep track of events as they evolve, monitoring the total impact on critical infrastructures and the effectiveness of response mechanisms. EventLib provides the analyst with a similarity-based retrieval capability that can be used to predict the impacts of an impending or hypothetical event.

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