Supply Chain Spatial Analysis Software (20130206)

Identifying Supply Chain Risk of Failure

The Criticality Spatial Analysis (CRISTAL) corporate risk software instantly traces products across multiple companies, identifying specific points in the system that are at risk of failure. The technology was developed by the National Center for Food Protection and Defense for performing corporate food traceability. By documenting parallel systems (i.e. food, water, chemicals, electricity, etc.), CRISTAL provides geography-based corporate risk management. Interfaces include visual supply chain and geographic facility-mapping.

Quick Response to Infrastructure Failure

The American food system fuels the United States' economy and the world's population. Yet the complexity of our food system leads to fragility, and a geographic database of food assets is necessary to ensure a quick and thorough response to a crisis in a distribution network. CRISTAL can ensure safe and reliable supplies while simultaneously providing quantitative evidence for minimizing insurance fees.

BENEFITS AND FEATURES OF CRISTAL:

- Traces capital across multiple companies from each natural resource to the consumer.
- Uses preventative tools such as risk mitigation and supply chain mapping to reduce risk of corporate disaster in advance.
- Provides resources to reduce insurance costs and enable quick response to product recall.

Phase of Development Alpha Application

Food Supply Protection

The Focused Integration of Data for Early Signals (FIDES) tool can quickly identify and share potential food threats and adverse food events. The FIDES software is available for licensing.

Researchers

Food Protection and Defense Institute

External Link (foodprotection.umn.edu)

Technology ID
20130206

Category
Express License
Engineering & Physical Sciences/Transportation
Software & IT/Communications & Networking
Software & IT/Databases
Software & IT/End User Software
Software & IT/Simulation & Modeling
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