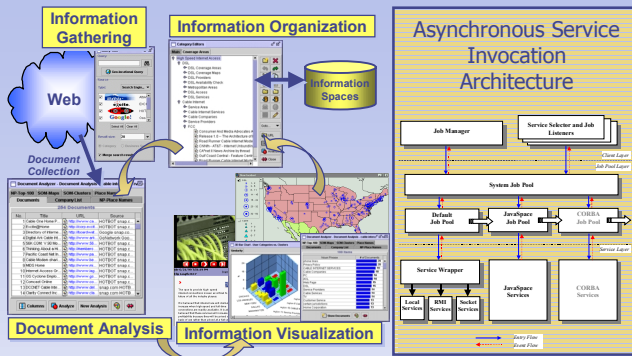
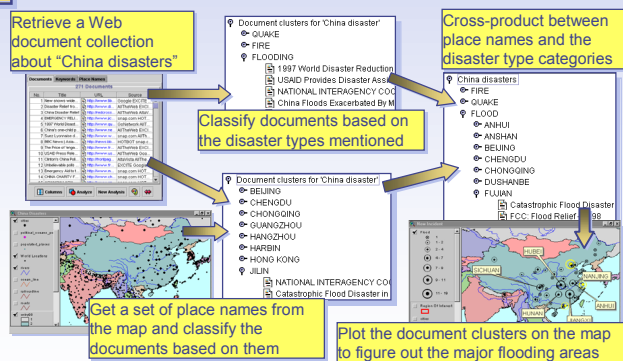


Testbed Application: GeoWorlds



- **Combines Geographic Information Systems and Web processing services**
- **Ops and intelligence uses, e.g.,**
 - Mapping terrorist bombings
 - Locating recurring natural disasters
 - Investigating drug trafficking and piracy in various locales
- **Architected from the beginning as a component-based framework**

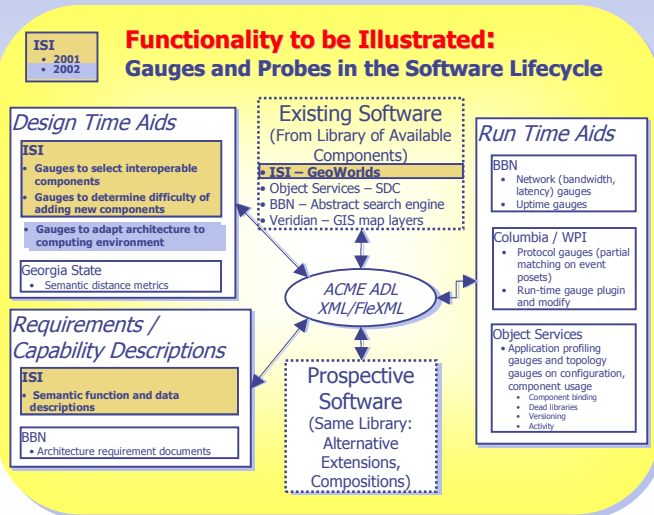
- **Large component-based system, in experimental use at PACOM & JFCOM**
 - Supports crisis ops planning and execution
 - PACOM and JFCOM Joint Futures Laboratory serve as outside evaluators
- **Presents key common software challenges**
 - Assembling analysis programs from components
 - Restructuring new version releases
 - Integrating new functionality
 - Adapting for local environments



Sample Application Using GeoWorlds Components:
Identify Recurring Disaster Areas, e.g. Flood Locations in China

IntelliGauge TIE: DASADA Applied to Internet Information Systems

Using Gauges
Throughout the Software Lifecycle
to Improve Internet Information Systems



GeoWorlds Extensions Aided by SIM-TBASSCO:

- **Composition of specialized analysis app's**
 - Aided by compatibility, interoperability gauges
- **Integration of new components**
 - Interoperability levels gauged; Component library indexed via functional & I/O semantics
 - **BBN:** Abstract Query Engine
 - **Veridian:** Terrain Reasoner
- **Runtime service quality monitoring**
 - Component data flow models enable runtime monitoring gauges
 - **Columbia/WPI:** gauges verify during runtime that services are conforming to requirements

Extensions Aided by Other IntelliGauge Projects:

- **Architecture: runtime performance tuning**
 - **BBN:** performance gauges
 - **Object Services:** application profiling and topology gauges on component usage
- **Runtime swapping of components based on performance monitoring**
 - **Columbia/WPI:** quality gauges, e.g., size of search result

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