Flexible and customizable modeling: ELEMENTS 16 catastrophe modeling platform

As the insurance industry navigates new forms of volatility, transparent and customizable models are essential. Impact Forecasting has enhanced its ELEMENTS catastrophe modeling platform to fully benefit from the Oasis Loss Modeling Framework – helping companies create their own custom view of risk through an open modeling platform.

Embracing Today's Catastrophe Modeling Needs

- **Oasis financial loss calculation engine** is now available, in addition to the established Impact Forecasting engine, allowing users to leverage models from a range of vendors and research organizations.

- **Oasis model definition format** is supported natively by the Impact Forecasting financial engine to ensure greater model compatibility and flexible choice.

- **Full set of APIs** (Application Programming Interface) to integrate ELEMENTS into existing or new catastrophe modeling workflows.

- Easy to install **client-server application** and **flexible deployment options** on premise and cloud to enable scalable performance and improved speed (based on the number of cores).

New and Updated Models in ELEMENTS 16

- Canada Earthquake – New
- Caribbean Earthquake – New
- European Windstorm
- Manhattan Terrorism Blast
- Czech Republic Flood
- Hungary Flood
- Canada Flood
- Malaysia Flood
- Guam Typhoon

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Customization and transparency

1. **Transparency**: Access and insight into hazard and vulnerability model components and how they are connected to streamline model evaluation, customization projects and informing your own view of risk faster.

2. **Customize and Adjust**: Leverage in-house model development expertise and data to modify key model parameters, adjust and add events, customize vulnerability functions or implement full model components to derive more appropriate model results.

3. **Uncertainty Definition and Quantification**: Communicate with re/insurers for more appropriate rates or with regulators and rating agencies for an informed and smoother model approval process. ELEMENTS sets the framework to define, quantify and visualize uncertainty within the catastrophe model.

**Key Enhancements in ELEMENTS 16**

- **Support for Open Exposure Data (OED)** modifiers scheme for Impact Forecasting models (in addition to the existing schemes) allows for importing exposure data defined by OED classes and enables greater standardization

- **Enhancements of financial engine and reporting** – users can output sample level EP curves (default) for state, county and user defined breakouts in addition to mean level EP curves. Sample based AEP curves are also now available

- **Input custom flood defenses** e.g., temporary defenses around a large commercial or industrial risk, for more accurate modeling and quantification of flood risk

- **Oasis Loss Modeling Framework integration** for running any Oasis based model such as JBA’s UK flood model directly from the ELEMENTS interface importing OED format exposure

- **Addition of API functionality for compiling model results** from two (or more) analyses, which allows easier integration with 3rd party products such as (re)insurers cat modeling and pricing systems

**ELEMENTS Environment in Action**

Integration of the Oasis loss calculation engine alongside the Impact Forecasting engine, source: Impact Forecasting