

ELEMENTS loss calculation platform from Impact Forecasting

In response to industry needs for understandable, transparent and customisable catastrophe models, Impact Forecasting – Aon Benfield’s catastrophe model development centre of excellence – has enhanced the ELEMENTS loss calculation platform. ELEMENTS is completely open and customisable, meeting insurers’ demands to create their own view of risk.

Customisation and transparency

- Complete insight into the **hazard and vulnerability components** and how they are connected, resulting in a better understanding of the model outputs
- **Customise models** using an insurer’s claims data to derive more appropriate results from the model. Use the Parameter Adjustment tool to see the effect of modifying event frequencies or particular occupancies. Users can also create and customise models by adding historical or hypothetical events
- **Fully understand uncertainty** to help communicate with reinsurers for more appropriate rates or with regulators and rating agencies for an informed and smoother model approval process. ELEMENTS helps visualise and quantify uncertainty within the catastrophe model and how this can be mitigated with the use of more accurate data.
- **Transparency and model validation** helps insurers satisfy rigorous regulatory requirements. ELEMENTS enables you to demonstrate understanding of how catastrophe models work and to include your own view of risk.

We’re here to empower results:

Contact us to understand more about ELEMENTS loss calculation platform and our transparent and customisable models.

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Risk assessment capabilities to benefit users

- **Mapping:** users can visualise the hazard, exposure and losses from our catastrophe models without the need to create maps manually or use Geographic Information Systems (GIS) software.
- **Support for real-time events:** loss reporting as an event happens. After Windstorm Christian (2013), the Chile earthquake (2014), various 2015/2016 flood events in the US and the Kumamoto earthquake (2016), Impact Forecasting generated insurance loss estimates within 24-48 hours after the event to share an early estimate of loss before claim collection began.

Enhanced functionality

- Model Development Studio enables insurers, reinsurers or third party model developers to create, integrate and deploy new models and components to the ELEMENTS platform in a streamlined way
- Control model run times by adjusting the default number of Monte Carlo samples for analyses, depending on your desired level of modelled loss stability
- A fully client-server application means better performance, easier client installation (also available via Citrix) and improved speed. Software as a Service (SaaS) options are also available.
- High speed loss calculation is achieved by using multiple server cores and 64-bit technology to run analyses.

New features for ELEMENTS 10

- Taking it one step further by enabling catastrophe modellers to run any model Impact Forecasting or third party, in the Impact Forecasting or in the Oasis hazard and vulnerability files format. Additional enhancements to the way flood models are implemented using the Oasis model files have led to a significant reduction in space requirements
- ELEMENTS Explorer has expanded to provide basic model and uncertainty documentation as well as direct access to most frequently used queries with the overall goal to aid the needs of internal and regulatory reporting. In addition most components of ELEMENTS Explorer have been now included in ELEMENTS Client making the access to the tools more streamlined
- New insights for accumulation control and per policy calculation to support underwriting
- Ability to integrate ELEMENTS into any product using full set of secured API
- Ability to run the platform in-house or on the cloud
- Up to 40% improved performance through Dynamic Core allocation – plus an improved graphical user interface

New and enhanced models for ELEMENTS 10

- Suite of new flood models for Canada, Malaysia and Poland
- Updated US river flood model has been expanded for pluvial flood, fluvial and storm surge views of risk have been updated
- 2013-2014 events are added as a part of US-SCS event set
- The cover of the European windstorm model has extended to Austria and Scandinavia and to include forestry.