

# The Exposure Management Module in CATRADER

## HIGHLIGHTS

The Exposure Management Module in CATRADER enables companies to analyze global reinsurance treaties beyond the scope covered by AIR's traditional suite of models and offers unprecedented flexibility to modify modeled losses and perform advanced sensitivity testing, all within a single platform.

The Exposure Management Module in CATRADER® gives clients the flexibility to customize and adjust various parameters in their catastrophe risk analysis, thus enabling a seamless workflow and a comprehensive view of risk from within a single platform.

The module enables users to examine and modify the drivers of risk by adjusting AIR modeled losses by event, line of business, or program to reflect a company's own knowledge and claims experience. Users are able to analyze non-modeled and non-catastrophe sources of loss to enable more robust and sophisticated risk selection, anywhere in the world.

Having a single global catastrophe risk platform, powerful sensitivity analysis capabilities, and the ability to consistently interpret model results gives companies the ability to respond effectively to regulatory requirements such as Solvency II.

The Exposure Management Module features separately licensable components that allow:

- Application of adjustment factors to event-level losses
- Inclusion of lines of business not currently supported in existing AIR models
- Analysis of non-modeled perils, and in-house and third-party models
- Adjustment of ground-up exceedance probability (EP) curve losses for individual programs

### EVENT-LEVEL LOSS ADJUSTMENT FACTORS

This enhancement allows users to modify most AIR models and customize losses to reflect the experience of a company. Users can define adjustment factors to ground-up (pre-treaty terms) losses on an event total basis, as well as by area and line of business.

These adjustments can be used to:

- Account for model deviation from historical experience revealed in validation
- Incorporate new scientific findings prior to model releases/updates
- Investigate the sensitivity of modeled results, particularly to anticipated model updates
- Account for secondary perils or other sources of loss not captured by the model (e.g., loss adjustment expenses, portfolio growth/inflation, policy leakage effects, evacuation costs, looting, and vandalism)
- Apply loads to large event losses to obtain a conservative view of the risk

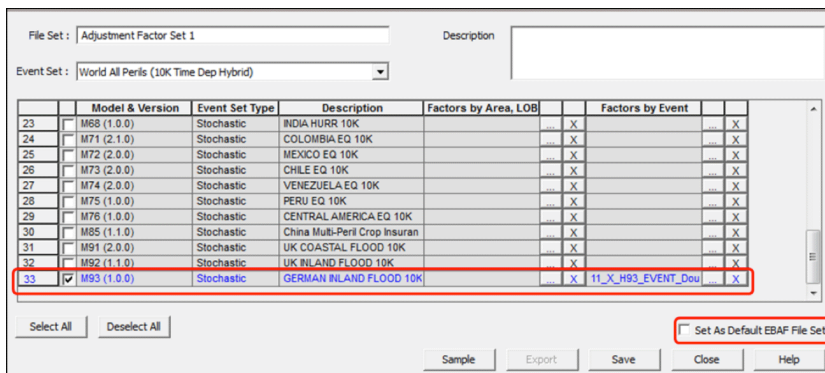
### INTEGRATION OF IN-HOUSE AND THIRD-PARTY MODELS

This enhancement allows for the construction of custom models in CATRADER to include any property or policy in a portfolio. Users can import customized event-level damage factors for perils not currently modeled by AIR, or modify or replace an existing AIR model by providing a different set of events and/or damage factors.

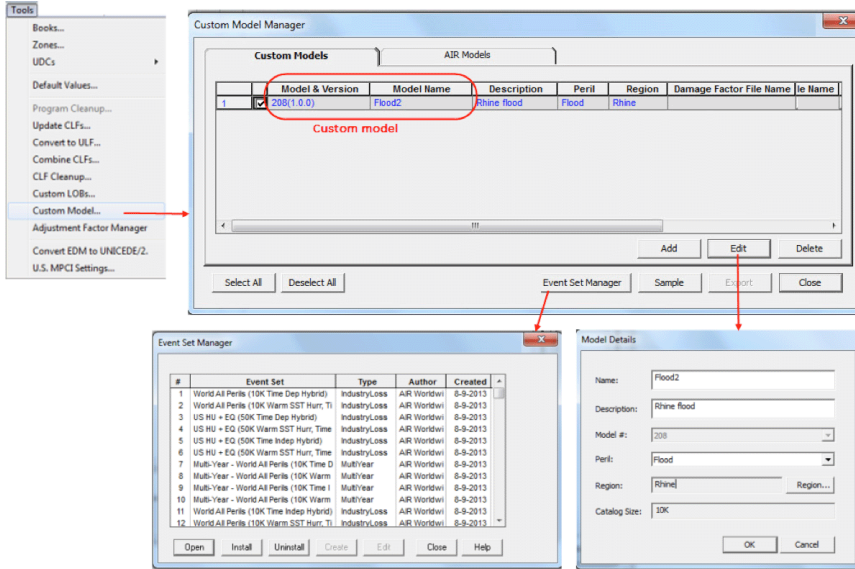
The new and modified models can be created at the area resolutions supported in CATRADER for the following perils: earthquake, flood, tropical cyclone, severe thunderstorm, and wildfire. CATRADER calculates contract losses for custom models by multiplying event damage factors by sums insured, and then applying user-specified reinsurance treaty terms. This feature allows the user to build custom event catalogs for existing modeled countries as well as for a number of currently unmodeled countries to run in parallel with AIR models. The same approach can be used to extend existing AIR models to support additional custom lines of business. To support this feature, additional countries have been added to CATRADER, including Argentina, Croatia, Ecuador, Iran, Kazakhstan, Malaysia, Papua New Guinea, Russia, Saudi Arabia, Singapore, South Africa, Thailand, Ukraine, and Vietnam.

Embedding these tools within CATRADER offers the following advantages:

- More homogeneous workflow for analysts (quotation and accumulation control)
- Consideration of secondary perils in aggregate coverages, such as stop-loss treaties
- Enhanced data consistency and less redundancy by storing treaty information in a single application



Apply loss adjustment factors to account for company experience or non-modeled losses, to incorporate new findings, and to perform advanced sensitivity testing.



Create custom models for non-modeled perils and regions, and apply user-specified damage factors and reinsurance treaty terms.

### NEW LINES OF BUSINESS

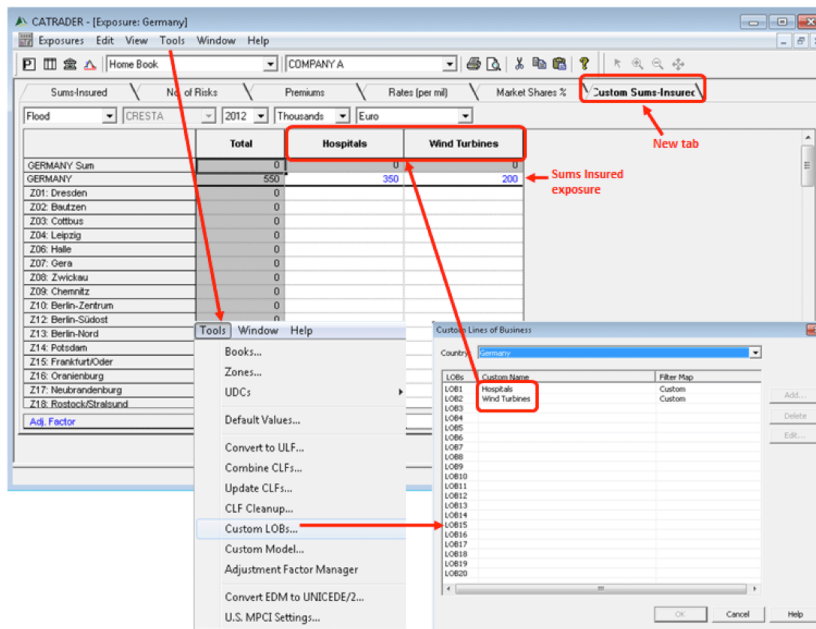
This enhancement allows any line of business to be modeled in CATRADER—using either an in-house or AIR model. These custom lines of business, defined by country, can be entered in the Exposures tab; sums insured data is entered for the selected peril, year, and currency.

The standard instance of CATRADER is able to model personal, commercial, industrial, auto, and agricultural lines of business on an aggregate basis. However, while

the regional aggregation of the model is suitable in many situations, the vulnerability assumptions or default policy terms might not always be appropriate.

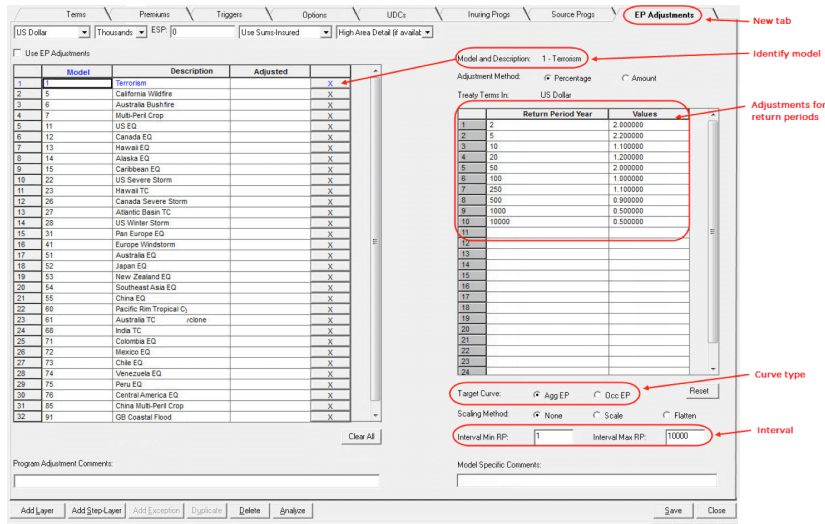
Examples include:

- Special vulnerabilities of the business (e.g., fine arts, construction business, hospitals, churches, motor, schools/universities, heavy industrial, and energy)
- Special primary policy terms (e.g., excess of loss primary policies, first loss policies, deviating deductibles, and limit to value assumptions)



Add custom lines of business to account for special vulnerabilities.

**SOLUTIONS BRIEF: THE EXPOSURE MANAGEMENT MODULE IN CATRADER**



Make adjustments to aggregate or occurrence losses at user-specified exceedance probability points.

**EXCEEDANCE PROBABILITY CURVE ADJUSTMENTS FOR INDIVIDUAL PROGRAMS**

This enhancement allows loss adjustments at the program level based on user knowledge of loss experience. It adds a new EP Adjustments tab to the Program screen, a new Program Loss Adjustments option to the Analysis screen, and new analysis calculations. Adjustments can be made to the aggregate or occurrence EP curve at points determined by a user-defined interval. Using the resulting EP target losses, CATRADER will adjust company losses at those points on the curve and interpolate all or a portion of the EP curve to fit the target points.

EP curve adjustments are especially useful when:

- Model results deviate from observed loss history
- User wishes to adjust losses to match an alternative set of model results
- Results from non-AIR models are to be combined with AIR output
- Exposures deviate from standard assumptions used for CATRADER Industry Loss Files
- Effects that cannot be modeled explicitly for efficiency/technical reasons need to be accounted for

To learn more, please contact your AIR representative or visit us at: <http://www.air-worldwide.com>

**ABOUT AIR WORLDWIDE (AIR)** is the scientific leader and most respected provider of risk modeling software and consulting services. AIR founded the catastrophe modeling industry in 1987 and today models the risk from natural catastrophes and terrorism in more than 90 countries. More than 400 insurance, reinsurance, financial, corporate, and government clients rely on AIR software and services for catastrophe risk management, insurance-linked securities, detailed site-specific wind and seismic engineering analyses, and agricultural risk management. AIR, a Verisk Analytics (Nasdaq:VRSK) business, is headquartered in Boston with additional offices in North America, Europe, and Asia. For more information, please visit [www.air-worldwide.com](http://www.air-worldwide.com).



AIR Worldwide is a Verisk Analytics business.



AIR Worldwide and CATRADER are registered trademarks of AIR Worldwide Corporation.

©2015 AIR WORLDWIDE