BREEZE PRODUCTS AND SERVICES

Since 1983, Trinity has offered BREEZE® air dispersion modeling software designed to help environmental professionals perform air quality studies. Today, over 4,000 environmental, hazard and safety professionals in more than 90 countries use BREEZE Software products to evaluate the impacts of air emissions, fires, and explosions, as well as for conducting tank emission calculations. The BREEZE product line includes applications for:

Continuous Release

- AERMET
- AERMOD/ISC
- AERMOD Parallel
- CALPUFF
- SCREEN3
- AERSCREEN
- ROADS

Explosion Damage and Safety Assessment

- ExDAM®
- VASDIP

Accidental Release

- Incident Analyst
- LFG Fire/Risk

Data Analysis

- 3D Analyst
- Downwash Analyst
- MetView

Health Risk Assessment

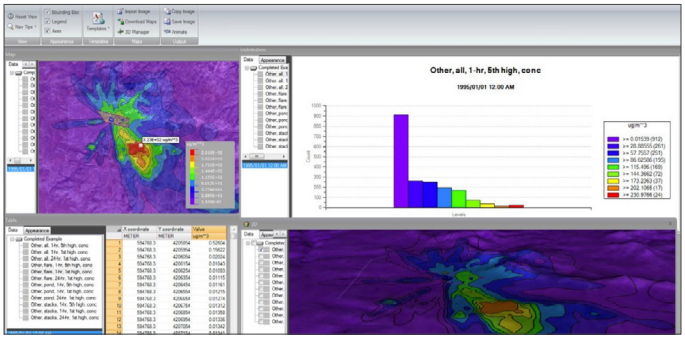
- Risk Analyst

Tank Emission Calculations

- TankESP
- ESP+

BREEZE Software products are designed according to Microsoft® design standards to seamlessly guide users through setting up their modeling scenarios in a quick and efficient manner. The products are supported by environmental and development professionals who are committed to providing excellent customer service, technical support, product innovation, custom development capabilities, and consistency with regulatory requirements.

In addition to our popular software applications, BREEZE also provides model-ready data, high-speed modeling services, custom software solutions, dispersion modeling training, and advanced EHS impact modeling services.



BREEZE AERMOD enhances the basic U.S. EPA programs providing modelers with more functionality and tools for analyzing results.

BREEZE Software for Continuous Releases

AERMOD/ISC - an enhanced version of the U.S. EPA-approved AERMOD that models air quality impacts due to industry emissions for permitting and planning purposes.

Tech Sheet / Product Brochure

CALPUFF - U.S. EPA-approved Lagrangian model that uses gridded wind field data to estimate concentrations and is required for long-range dispersion modeling near protected areas.

Tech Sheet / Product Brochure

AERMET – meteorological pre-processor for the U.S. EPA AERMOD model.

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Trinity Consultants breeze

AERSCREEN - a screening model based on the U.S. EPA AERMOD air quality dispersion model that produces estimates of "worst-case" 1-hour concentrations for a single source, without the need for hourly meteorological data, and also includes conversion factors to estimate "worst-case" 3-hour, 8-hour, 24-hour, and annual concentrations.

Tech Sheet / Product Brochure

SCREEN3 – a worst-case screening model based on the ISCST3 air quality dispersion model that is used to analyze single source release scenarios over simple or complex terrain.

Tech Sheet / Product Brochure

ROADS - the CAL3QHC, CAL3QHCR, and CALINE4 models are included to predict air quality impacts pollutants from motor vehicles on roadways.

Tech Sheet / Product Brochure

BREEZE Software for Data Analysis

3D Analyst – a powerful post-processor that enables you to analyze and visualize data in time series, 2D and 3D contour plots, and 3D isosurface and plane views; export results to Google Earth™ and GIS software; and to accomplish post-processing tasks such as adding/subtracting the results of two model runs or adding background concentrations.

Tech Sheet / Product Brochure

Downwash Analyst – a companion program to BREEZE AERMOD that provides a clear graphical display of the building downwash effects of AERMOD's BPIP pre-processor.

Tech Sheet / Product Brochure

MetView – displays a variety of meteorological data formats in both tabular and graphical formats and can be used to create wind roses for user-defined periods.

Tech Sheet / Product Brochure

BREEZE Software for Health Risk Assessments

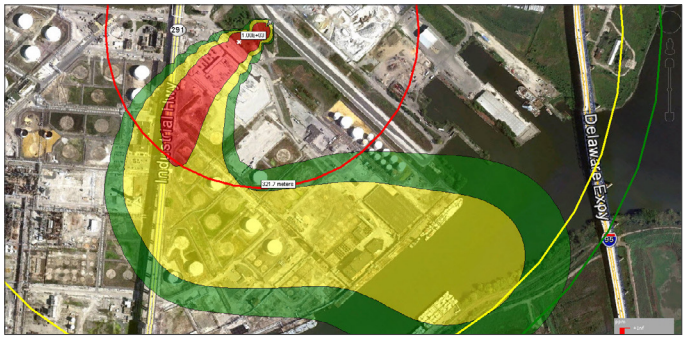
Risk Analyst - a highly flexible and expandable GIS-based analysis platform for conducting multi-pathway human health risk assessments that combines all the necessary tools, databases, GIS functionality, and fate and transport and exposure modeling equations into an affordable and easy to use software application.

Tech Sheet / Product Brochure

BREEZE Software for Accidental Hazardous Releases

Incident Analyst – a comprehensive emergency response and planning modeling system that incorporates a suite of 12 industry standard models consisting of: 4 neutrally buoyant and dense toxic gas dispersion models to predict chemical concentration and flammability levels for dense and neutrally buoyant gases; 4 fire models to predict thermal radiation fluxes and temperature rise; and 4 vapor cloud explosion models to predict blast force overpressures.

Tech Sheet / Product Brochure



LFG Fire/Risk - predicts LNG and LFG vaporization rates and downwind vapor concentrations to evaluate fire/explosion risk, and predicts thermal radiation from LNG and LFG pool and jet fires.

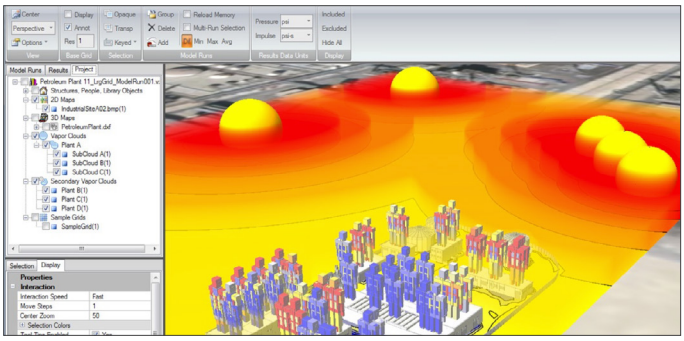
Tech Sheet / Product Brochure

BREEZE Software for Explosion Safety Assessments

ExDAM® – an explosion consequence modeling suite that predicts damage to structures and personnel injury resulting from primary and secondary high explosive and vapor cloud explosions. ExDAM includes shielding effects of buildings and blast walls as well as the powerful modeling applications listed below.

Tech Sheet / Product Brochure

- **HExDAM®** - analyzes the effects of an explosion of high explosive material
- **VExDAM®** - analyzes the effects of a vapor cloud explosion
- **HExFRAG** - computes secondary fragmentation from frangible objects during an explosion
- **3D Extend** - accelerates the structure development process by importing 2D and 3D data files (AutoCAD, SolidWorks, MicroStation, Sketchup, etc.) directly into BREEZE ExDAM



The state-of-the-art 3D graphical user interface of BREEZE ExDAM is easy to use and visually stunning.

VASDIP – computes vulnerability parameters of structures and human body components resulting from explosion impacts. These parameters can be used in BREEZE ExDAM HExDAM and VExDAM, making it an excellent companion product to these modules.

Tech Sheet / Product Brochure

BREEZE Software for Tank Emission Calculations

TankESP™ – a tank emissions calculation software product suite that uses the emission estimation procedures from Chapter 7 of U.S. EPA's Compilation of Air Pollutant Emission Factors (AP-42) for volatile organic compound (VOC) emissions from storage tanks. BREEZE TankESP consists of the three editions below.

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- **TankESP PRO:** the edition with the most capabilities, used for both fixed-roof and floating-roof tanks
- **TankESP FX:** used for fixed-roof tanks only
- **TankESP LT:** a light, basic version, used for both fixed-roof and floating roof tanks

ESP+ - a web-based application that inherits all the functions and methodologies of TankESP in the ESP+ Tank Module, while also providing users with the ability to estimate emissions from many other sources found at terminal and pipeline facilities. BREEZE ESP+ is subscription-based and consists of four modules:

Tech Sheet

- **ESP+ TankESP LT:** a light version of TankESP PRO that calculates monthly and annual working and standing losses for both floating- and fixed-roof tanks, using the revised version of AP-42 Chapter 7 methodology
- **ESP+ TankESP FX:** includes all features and functionality of TankESP PRO but is limited to only calculating emissions from fixed-roof tanks and only includes the revised version of AP-42 Chapter 7 methodology
- **ESP+ TankESP PRO:** includes the most comprehensive set of features and database functions for both floating- and fixed-roof tank emission calculations
- **ESP+ PRO:** includes all features and functionality of the ESP+ TankESP PRO module, plus the ability to estimate emissions from other types of sources (i.e., Catch Pans, Combustion Units, Control Devices, Equipment Leaks, Line/Vessel Openings, Loading Operations, Sumps/Oil-Water Separators, and Vacuum Trucks)

High-Speed AERMOD Modeling Solutions

Due to advances in scientific knowledge, higher resolution raw data, stringent air quality standards, and changing regulations, environmental modeling is demanding more and more from EHS professionals and their computers. All of these influences can cause AERMOD model runs to take significant amounts of time. Instead of minutes, AERMOD runtimes for large projects can take days or even weeks on a single-core computer. To address the issue of increased runtimes, we offer a couple of options to modelers to increase productivity while managing model complexity. The options available for BREEZE AERMOD users interested in parallel processing include local and remote resources. (Note: A two-core local parallel processing version is included in BREEZE AERMOD.)

- Cluster Computing: BREEZE Remote Modeling System (Remote Resources) - a Web-enabled application that executes AERMOD model runs on a massively parallel computer cluster to slash runtimes
- Standard Computing: BREEZE AERMOD Parallel (Local Resources) - a parallel processing version of AERMOD that reduce runtimes through the use of a multi-core processor or distributed computer network (cluster)

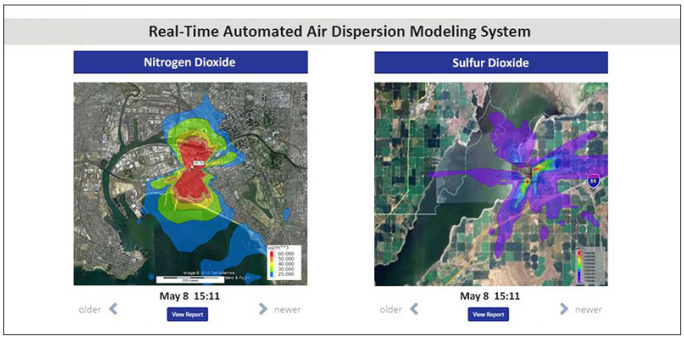
Model-Ready Meteorological and Geophysical Data

Our team of meteorologists and environmental engineers are knowledgeable about sources for data worldwide, common challenges and how to address them, and the proper processing techniques and regulatory requirements for model input.

We can provide model-ready meteorological data for a variety of models including but not limited to AERMOD, CALPUFF, ADMS, CAL3QHCR and ISC. We also have extensive experience processing meteorological data using MM5 and WRF, which enables our meteorologists to generate model-ready meteorological data for remote locations that lack access to historical hourly observations. We also provide model-ready topographic data, including USGS and global DEM data and National Elevation Dataset (NED) GeoTIFF files.

Custom EHS Software Solutions

In addition to commercial dispersion modeling software, BREEZE provides Windows®-based software solutions to support clients' environmental needs. By integrating air quality and computer science expertise and experience, our team is uniquely able to efficiently develop high-quality software applications in support of air quality and environmental needs. For more information, go to trinityconsultants.com/software/custom-model-development/overview.



Advanced EHS Impact Modeling Services

BREEZE is proficient in conducting various environmental, health, and safety modeling analyses. Our expertise in modeling is marked by the superior technical proficiency that comes from developing the modeling applications used by thousands of EHS professionals.

To meet our clients' strategic objectives, BREEZE performs dispersion, fire and explosion modeling analyses using models such as AERMOD, CALPUFF, DEGADIS, SLAB, AFTOX, INPUFF, ExDAM, CAMx and CMAQ. For more information, go to trinityconsultants.com/software/specialty-modeling-services.

Custom and Scheduled Training Courses

Every year we instruct a range of scheduled and custom courses on model fundamentals and real-world applications for clients worldwide. Below you'll find a list of our highly sought-after scheduled courses. For more information, go to trinityconsultants.com/training/software. Similarly, to request a custom quote, contact us at +1 972.661.8881 or breeze@trinityconsultants.com.

- AERMOD Modeling Computer Lab
- Fundamentals of Air Dispersion Modeling
- Practical Air Dispersion Modeling Workshop
- Practical Air Dispersion Modeling Workshop - International
- Accidental Release Modeling Workshop with BREEZE Incident Analyst
- Accidental Release Modeling Workshop – International
- Introductory Explosion Modeling Workshop with BREEZE ExDAM Webinar
- Fundamentals of Tank Emission Calculations
- Tank Emission Calculation Workshop with TankESP Software
- Tanks & Terminals Emission Calculations Workshop with BREEZE ESP+
- Tank Regulations Primer

Visit trinityconsultants.com/software to learn more about BREEZE Software and our offerings. For a software demonstration or questions about our offerings, contact us at +1 972.661.8881 or breeze@trinityconsultants.com.

trinityconsultants.com/software
P +1 972.661.8881 / F +1 972.385.9203
breeze@trinityconsultants.com