CAFTA Technology Package v11.1
Phoenix Architect 2.1

Powerful Tools When You Need Them

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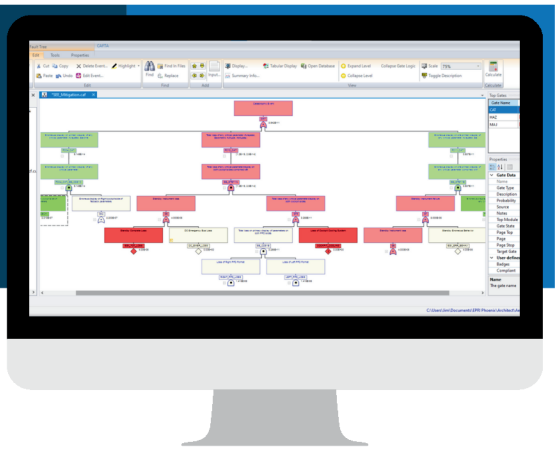
CAFTA is the industry leader in fault tree analysis

for large, complicated, or multi-user collaborative projects. CAFTA allows you to build, quantify, and analyze fault tree models of any size or complexity.



CAFTA is a global product used in power generation, communications, transportation, aviation, and space. It transformed US nuclear power regulation into "risk-informed regulation." The CAFTA products use EPRI technology.

CAFTA users spend less time building models and more time interpreting results

BENEFITS

- Capable of building, reviewing, and quantifying large fault trees with over 10k gates
- Easy to use for both individual analysts and project team
- Intuitive tree browsing with top-to-bottom scrolling for easy navigation
- Includes advanced tools for complex tasks like CCF event insertion, circular logic checks, independence verification, pruning, quantification, and cutset filtering
- Flexible and adaptable, supporting model imports from other COTS products and third-party quantification engines like FTRex
- CAFTA models are compatible with tools like FRANX, UNCERT and Phoenix Risk Monitor for specialized tasks such as risk and uncertainty analysis and maintenance risk monitoring

FEATURES

- Four standard risk importance measures
- Supports DPC and min-cut upper bound quantification methods
- Cutset post-processing with QRecover
- Common-cause failure event modeling using Alpha and multiple-Greek letter methods
- SDK available for integrating CAFTA into other applications
- Cutset filtering with side-by-side comparison views
- Project-level search functionality
- Customizable model-building with pinnable property panes
- Windows clipboard support for exchanging logic, images, and data
- FT web page printing capability
- GIT repository support
- AI-Based storyteller for cutsets

About Polestar

Polestar solves complex technical challenges, leveraging over 30 years of experience and expertise to drive government and commercial clients toward excellence in every project we manage and service we provide.

Our NAICS Codes

323430, 511210, 541330, 541511, 541611, 541618, 561320, 541620, 541690, 541990, 562910, 611430

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What is included with CAFTA:

PRAQuant Accident Sequence Quantification Tool

When conducting fault-tree analysis, multiple solutions using different subtrees, boundary conditions, or assumptions are often needed. While CAFTA can handle these manually, tracking and documenting the results can be challenging. PRAQuant simplifies this by allowing you to:

- Automate accident sequence quantification.
- Use the fault tree linking approach.
- Integrate with other EPRI software for a complete quantification process.

UNCERT Uncertainty Evaluation Tool

UNCERT reads the cutset or sequence data from CAFTA to calculate uncertainty. It allows you to:

- Evaluate uncertainty of the top result for a set of cutsets.
- Calculate the uncertainty of various importance measures.
- Report results to other tools or applications.

FRANX Fire Modeling Tool

FRANX is a scenario-based PRA tool that calculates risk for specific scenarios, often used for assessing external event hazards like fires, floods, high winds, and earthquakes.

ACUBE Advanced Cutset Upper Bound Estimator

ACUBE calculates the probability or frequency of a Boolean function using minimal cutsets, often derived from a CAFTA fault tree. It provides more accurate probability and importance measures for Boolean functions.

DPC Direct Probability Calculator

DPC is a tool for calculating the exact top event probability or frequency of a fault tree without using cutset-based methods. DPC allows you to:

- Calculate exact probabilities for most fault tree gates.
- Avoid issues with cutset quantification, like rare-event and negated logic approximations.
- Estimate the exact top event probability by calculating lower and upper bounds, improving speed for large, complex trees.
- Accurately calculate top event frequency in frequency-based fault tree models.

SysImp Systems Importance Measures

SysImp calculates the importance of basic events or event collections in a risk model. It:

- Quickly calculates importance measures.
- Offers real-time results and error identification.
- Saves hours of work in large risk models.

HOW TO REACH US

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SBA U.S. Small Business Administration WOSB CERTIFIED

Polestar is certified as a Woman-Owned Small Business headquartered in Richland, WA