

Relex University Courses: Relex Fault Tree Best Practices

Learn to Effectively Utilize Relex Fault Tree for Risk and Reliability Analyses

This two-day training class thoroughly covers the background theory on fault tree creation and analysis, along with the hands-on application of software techniques in Relex Fault Tree.

Relex Fault Tree Best Practices is designed to provide you with the core concepts and underlying principles of fault tree analysis so you can leverage this knowledge to perform your risk and reliability analyses armed with new expertise. Combining a solid theoretical framework with hands-on instruction in software features and functionality, Relex's highly trained, experienced instructors will walk you through sample projects based on real-life scenarios to help you best understand and apply the software.

Key Benefits

General Course Content

- Learn the basics in fault tree theory as well as how to apply this knowledge and improve your efficiency in this technique
- Gain an understanding of the fundamentals of fault tree construction, logic, and elements
- Study the fundamental probability theory and Boolean algebra principles that form the basis of fault tree analysis
- Work step-by-step through best practice ways to apply the fundamentals of fault tree theory in real world systems
- Understand the application of fault tree analyses in high-powered, comprehensive risk assessments and analyses

Fault Tree Topics Covered

- Various fault tree analytical techniques, including quantitative and qualitative computations
- Cut set determination, reliability importance measures, and the use of dynamic gates
- Calculation metrics including unreliability, unavailability, failure frequency, number of failures, and many more



Relex University offers this course via live, instructor-led training at many locations throughout the country, or onsite at your facility.

Experienced Course Instructors

- Relex courses are developed and taught by engineers with years of experience in reliability engineering and software applications
- Many Relex instructors are ASQ (American Society for Quality) Certified Reliability Engineers with advanced engineering degrees
- Instructors are well versed in all aspects of reliability engineering principles and bring a wealth of knowledge and experience from working with many clients across diverse industries

Additional Benefits

- Immediately benefit from this comprehensive curriculum, and gain knowledge to use in your reliability tasks the very next day
- Question-and-answer time is offered throughout the class to help ensure you gain the knowledge relevant to your unique needs
- Regional training courses offered at many sites around the country mean there is sure to be a training class near you
- Onsite training can be provided at your facility and can be tailored to your organization's specific needs

Course Agenda

Day One: Fault Tree Theory

- Fault Tree Basics
 - What is Fault Tree Analysis?
 - Application of Fault Tree Analysis
 - Fault Tree Element Definition and Usage
 - Fault Tree Construction
 - Probability Theory and Boolean Algebra
 - Qualitative versus Quantitative Analysis
- Qualitative Analysis
 - Cut Sets
 - Minimal Cut Sets
 - Cut Set Generation Models
- Quantitative Analysis
 - Quantitative Analysis Results
 - Time Dependent Versus Lambda Tau Analysis
 - Quantification of Fault Tree Events
 - Importance Measures
 - Methods for Quantitative Calculations

Day Two: Relex Fault Tree

- Relex Fault Tree Introduction
 - Relex Interface Navigation
 - Important Fault Tree Options
 - Creating Systems to Store Fault Trees
- Relex Fault Tree Data Entry
 - Defining the Fault Tree
 - Assigning Gate and Event Properties
 - Using Repeated Events and Transfer Gates
- Relex Fault Tree Analysis and Outputs
 - Performing Calculations
 - Generating and Analyzing Cut Sets
 - Generating Reports and Graphs
- Relex Fault Tree Advanced Topics
 - Interface and Visual Property Customization
 - Exporting and Importing Fault Tree Data
 - Using Libraries
 - Using and Calculating Dynamic Gates
 - Report and Graph Customization
 - Linking Data from Other Relex Modules

For More Information

For more information or to schedule a class, please visit
www.relex.com/services/training.asp

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