A-P-T RESEARCH, INC.

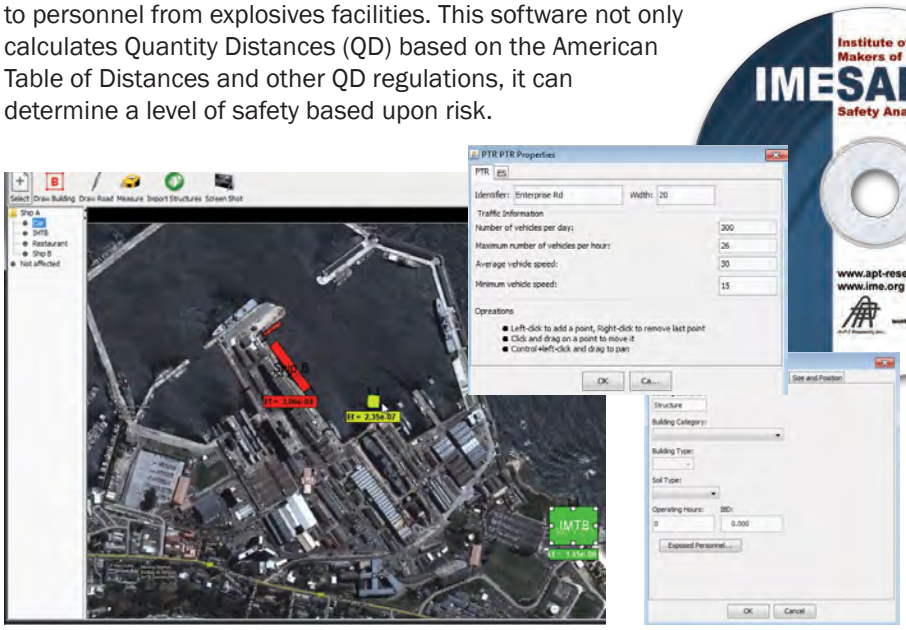
IMESAFR

Institute of Makers of Explosives Safety Analysis for Risk

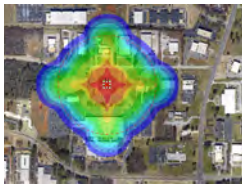
What is IMESAFR?

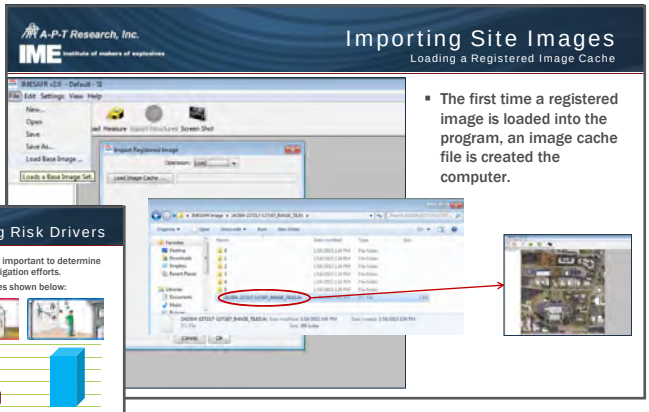
Institute of Makers of Explosives (IME) Safety Analysis for Risk (IMESAFR) is a software model that was developed through a joint effort by IME and A-P-T Research, Inc.

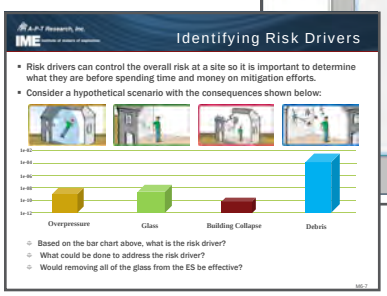
IMESAFR is a probabilistic risk assessment tool used to calculate risk to personnel from explosives facilities. This software not only calculates Quantity Distances (QD) based on the American Table of Distances and other QD regulations, it can determine a level of safety based upon risk.



IMESAFR uses the donor structure and activity, the structure of the exposed sites, and duration of exposed personnel to determine a level of safety. The program provides users with the ability to work in metric or imperial measures, and allows users to import maps or drawings of their site to assist with visualizing facility layouts and results.







Why was IMESAFR developed?

IMESAFR was developed to provide a more comprehensive assessment of the overall risk of explosives operations. The commercial explosives industry in the United States uses the American Table of Distances (ATD) as the basis for safe siting of explosives storage facilities. ATD siting involves the evaluation of a specific magazine and inhabited building or public highway, which are referred to as a Potential Explosion Site (PES)/Exposed Site (ES) pair in IMESAFR. This evaluation yields the recommended separation distance based on the factors that affect risk, including whether a barricade exists. Although the same criteria can be applied to explosives manufacturing operations, the ATD was intended for use in limited permanent storage situations. In addition to permanent storage situations, IMESAFR accounts for other activities such as manufacturing, assembly, and loading and unloading.

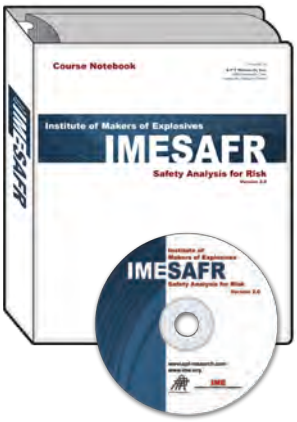
IMESAFR Training Course

The course is presented over three days with eight hours of mixed lecture and discussion each day for a total of 24 classroom hours. Daily class hours are from 8am to 5pm with an hour for lunch and breaks mid-morning and mid-afternoon. A competency test will be given at the end of the course.

Class Size: minimum of 10, maximum of 25.

Where

The class is normally held at the APT Safety Engineering and Analysis Center (SEAC) in Huntsville, AL, conveniently located in Cummings' Research Park near Redstone Arsenal.
See www.apt-research.com/contacts/contactUs.html for detailed directions.



The class may also be offered at other locations. On-site training courses can be arranged, as well as courses that run in conjunction with conferences and meetings.

Course Content

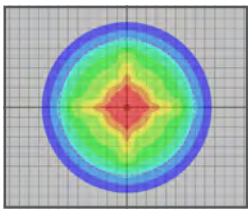
The IMESAFR Training Course will guide the user through the overall user interface of the IMESAFR Software. Some of the topics discussed are listed below.

- A background on the concepts and terminology used in the IMESAFR risk assessment software.
- A thorough guide on using input screens and choosing the proper input selection.
- A description of the capabilities of IMESAFR including menu options, functions of the tool bar, help menu and generating reports.
- An overview of the 26-step process used by IMESAFR to familiarize the user with the exposure and consequence analysis.
- Multiple examples (some worked individually and some as a group) demonstrating the various capabilities of IMESAFR.
- Practical applications of the software and its use in the risk management process.

Course Outline

1. Overview
2. QD Concepts & Background
3. QRA Concepts & Background
4. IMESAFR Features
5. Class Exercise 1
6. Risk Management
7. Advanced Tools
8. Architecture - Part 1
9. Architecture - Part 2
10. IMESAFR Protocols
11. Linking Architecture to Testing
12. Class Exercise 2
13. Approval Process
14. Input Decisions
15. Group Exercise
16. Test

Each student is responsible for bringing a laptop to training. A training book is included in the course fee.



Schedule

www.apt-research.com/capabilities/training.html

CEU

Upon completion of this course, attendees will be credited with 2.0 Continuing Education Units (CEU).

Cost

IMESAFR v2.0 Training: US$1800

IMESAFR v2.0 Software:
- Standard Price: US$1500
- IME member: US$750

Upgrade IMESAFR v2.0:
- Non IME member: US$750
- IME member: US$375

Registration Information

To register for a class in Huntsville or if you are interested in setting up a training course at a location other than Huntsville, please contact:

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202.429.9280
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APT Point of Contact

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