

# Relex FMEA

## Analyze Potential Failures and Minimize Their Effects

Relex FMEA (Failure Mode and Effects Analysis) provides an automated solution to quickly, easily, and consistently analyze the potential failure modes of your system and their resulting effects.

Relex FMEA helps you identify all potential failure modes, both immediate and far-reaching throughout a system, in order to analyze the best means to prevent failures or lessen their impact. By helping you anticipate failures and minimize their occurrence and effects, Relex FMEA contributes to higher quality designs, processes, and services that meet or exceed industry standards. Relex FMEA also calculates criticality results to support FMECA (Failure Mode, Effects, and Criticality Analysis) methodology.

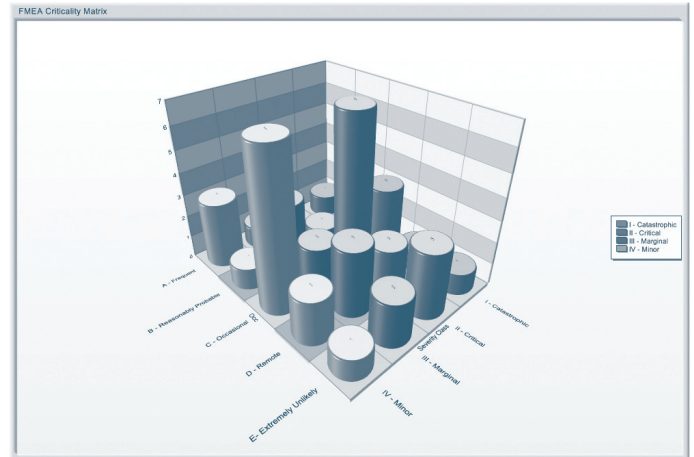
### Key Benefits

#### An Organized Approach to Risk Assessment

- Develop, organize, and implement a plan to address potential failure modes and lessen their impact
- Evaluate systems from a high-level or a detail-oriented perspective
- Perform design, process, or functional analyses
- Evaluate hardware and software systems, process control systems, and human tasks
- Track the compliance status of parts and products relative to industry standards
- Export data from Relex FMEA into an MIL-STD-1388 2B LSAR compatible format

#### Effective Management of Highly Complex Systems

- Break down large, complex systems into smaller, more manageable subsystems
- “Rolling up” from lower to higher levels and “building down” from higher to lower levels provide for the traceability of failure modes, effects, and severity throughout the system hierarchy



Relex FMEA supports criticality calculations to prioritize risks, as in this criticality matrix.

#### Available Enterprise-Wide Implementation

- Convenient Web-based user interface supports multiple simultaneous users in a zero-client environment
- Enable global standardization across your enterprise
- Configure the system workflow to match your business processes
- Role-based administration, audit trails, and other security features

#### Automated Interface Tools for Managing Data

- Customizable lists and auto-populate features mean even large, complex FMEAs may be constructed quickly and efficiently
- Powerful data filtering capabilities make it easy to query and search large amounts of information
- Color-code columns, automatically merge cells, and freeze columns while scrolling for easier data entry
- Store part or all of a FMEA for easy re-use
- Create fault equivalencies to ensure consistency for like failure modes and effects
- Generate equivalent fault trees from FMEA data

## Features

### Supported FMEA Types

- Process
- Design
- Functional
- Component
- Piece-Part
- FMES (Failure Mode and Effects Summary)

### Supported Standards

- MIL-STD-1629A
- FMD-97
- BS5760
- HAZOP
- SAE ARP5580
- AIAG
- SAE J1739
- IEC 61508
- IEC 60812

### Supported Calculations

- Item / mode failure rates
- Item / mode criticality
- Risk priority number (RPN)
- RPN improvement percentage
- Risk level
- Percent isolation
- Percent detection
- User-definable

### Supplied Failure Mode Libraries

- FMD-97
- FMD-91
- MIL-HDBK-338
- NPRD3
- RADC-TR-84-244
- RADC-TR-844 4-A

### Data Hierarchy

- Mode Only
- Single effect per mode
- Multiple effects per mode
- Multiple effects per cause
- Multiple causes per effect

### Sample Analysis Outputs

- Standard report format per specifications
- Criticality matrices
- Risk levels
- Failure likelihood rank
- Top (n) failure modes by RPN
- Failure modes and effects summary
- Top (n) failure modes by mode criticality
- Action item list
- Failure mode cause Pareto
- LSAR 1388 2B

### Input and Output Data in a Variety of Formats

- Easily import from or export to commonly used formats like Microsoft Excel, Microsoft Access, XML, and plain text files
- Create reports in Microsoft Word, Microsoft Excel, Adobe PDF, and Rich Text Format
- User-definable, wizard-driven custom graphs and reports
- Dynamically link to other Relex modules, such as Fault Tree, OpSim, Reliability Prediction, and FRACAS

### Available Enterprise-Class Features

- Available zero-client, Web-based interface provides for data entry and analysis anywhere, anytime
- Access data and system metrics from a convenient, Web-based Dashboard interface for management overview
- Enterprise Edition supports a multi-user environment with role-based permissions, security, administrator control, and audit trail
- Database integration at enterprise level supports Microsoft SQL Server 2008, Oracle, Microsoft SQL Server Express, and Microsoft Jet Engine (Access compatible)
- Alert module can trigger e-mail notifications of key personnel
- User-specific login page provides workflow notifications, alerts, and announcements to enhance collaborative FMEA efforts

## For More Information

For more information on Relex FMEA, please visit: [www.relex.com/products/fmea.asp](http://www.relex.com/products/fmea.asp)

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