VAISALA

FALLS® Client Fault Analysis and Lightning Location System

Prioritize your analyses on the fly using FALLS® Analysis queue. The ability to explore one analysis while others run in the background will improve your productivity.
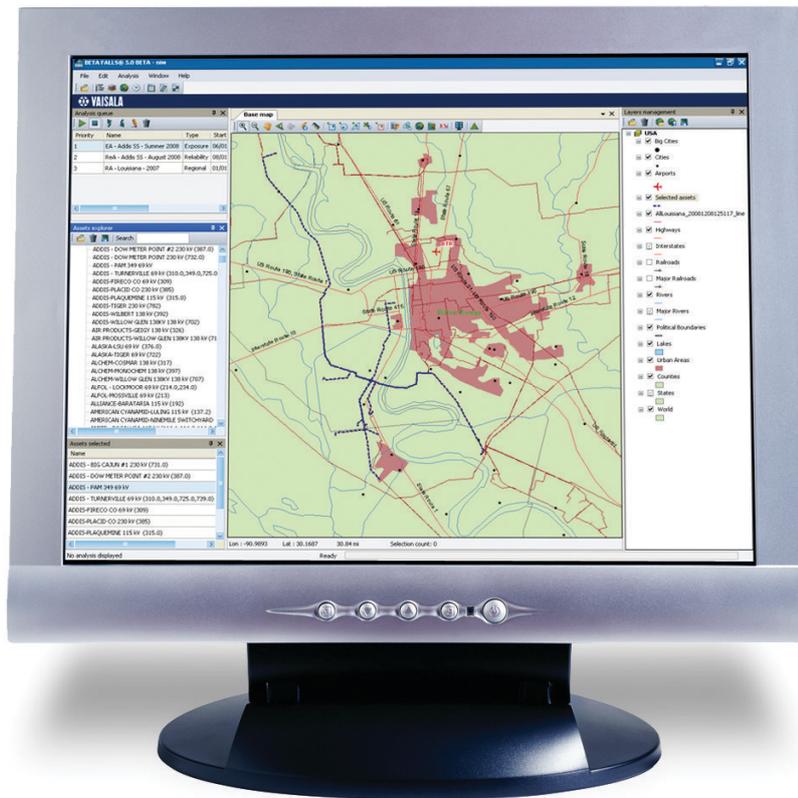
Vaisala FALLS® Client is innovative software used by electric utilities to query previously recorded lightning information in a GIS (Geographic Information Systems) environment.

FALLS Client generates lightning information into maps, graphs, and statistical tables, and is used to analyze the impact of lightning on assets and systems. Whether you are investigating suspected lightning-caused faults or are studying the climate of your service territory, Vaisala FALLS® provides an easy-to-use platform to quantify and prioritize recommended protection investments

Electric Utility Power Package

Vaisala has now made it easier than ever for U.S. and Canadian customers, or international customers with access to a Vaisala precision lightning detection network, to gain access to the FALLS

services you depend on to minimize the risk lightning poses to your operations. Partner with Vaisala for your historic and near real-time lightning data access, automated lightning fault correlation, and continuing education to keep your organization ahead of the storm.

Vaisala offers customers access to the following options:

- Subscription to Vaisala FALLS Lightning Data for your service territory (US and Canadian customers)
- FALLS Client and FALLS Server software support and upgrades
- Priority access to the FALLS Users Group and Vaisala Webinars on special topics of interest

- Preferred discounts for real-time lightning data access with Vaisala's partners

Lightning Data Source

North American customers have access to Vaisala U.S. National Lightning Detection Network® and the Canadian Lightning Detection Network, which together create the most comprehensive historic lightning database in the world.

With a FALLS Server add-on, international customers and private Vaisala lightning detection network owners can access data from any Vaisala or archive processor.

FALLS® Client Analyses

Reliability Analysis

A Reliability Analysis maps event-specific lightning analysis in near real-time. It locates poorly performing line segments or system weaknesses, validates your lightning protection design and correlates your line faults to lightning activity or a lack of lightning activity.
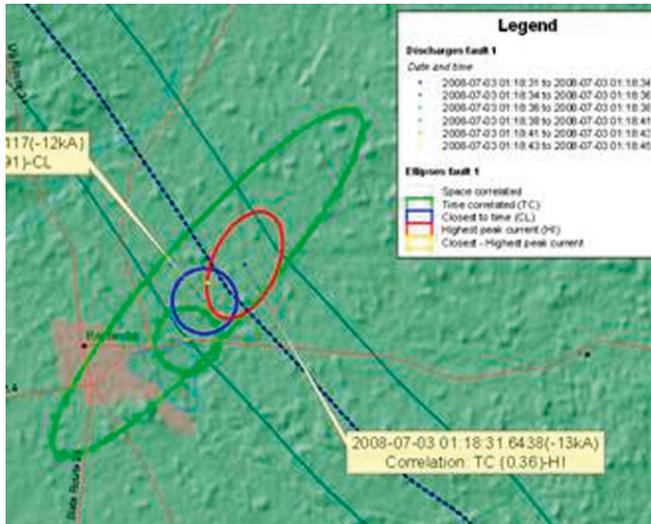
This FALLS® Reliability Analysis reveals four cloud-to-ground lightning discharges which correlated to a suspected fault. The blue ellipse represents the stroke that best matches the fault recorder timestamp, and the red ellipse shows the highest peak current event. Field crews could be dispatched to the location to restore service.

Regional Analysis

A Regional Analysis generates regional and local lightning strike occurrences and/or densities for user-specified time periods. With a map of lightning density variations and percent positive discharges, it is used to identify hot spots for lightning activity, compare variations in lightning occurrence, amplitude, and polarity across days, weeks, months or years and statistically verify the expected amounts of lightning activity in your service territory.
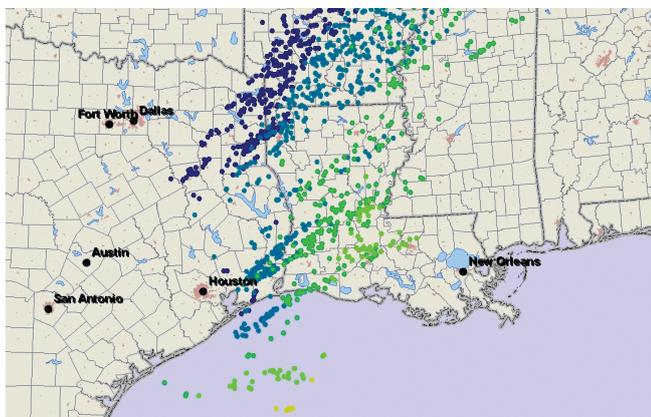
FALLS® allows the user to display and discriminate lightning discharges by their time of occurrence. The map displayed here for December 3rd and 4th, 2008 shows a line of thunderstorms in the U.S. gulf coast that tracked to the northeast.

Exposure Analysis

An Exposure Analysis offers point-by-point and/or gridded analysis resolving the amount and type of lightning activity within user-defined asset buffer regions. It plots time trends of lightning over your service territory and/or assets, ranks assets by the amount and intensity of lightning exposure and discriminates by polarity and amplitude around user-defined asset buffers.
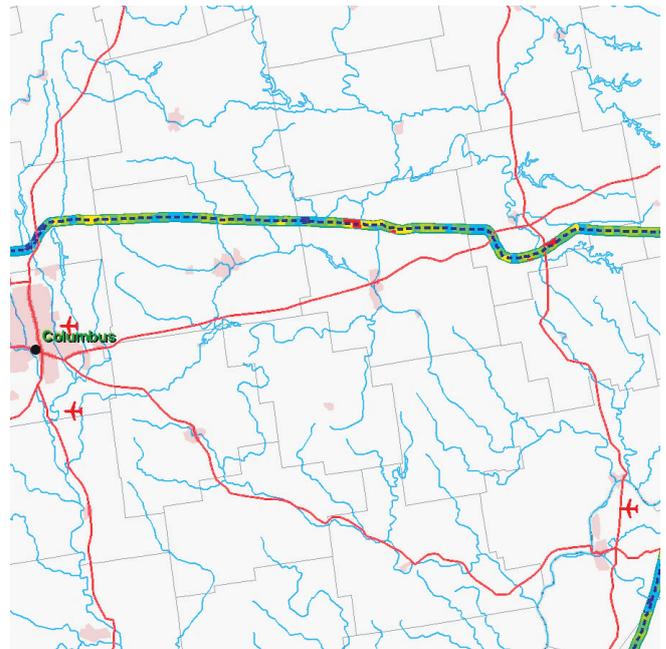
An example of FALLS® Exposure Analysis for a transmission circuit in eastern Ohio. Areas of higher lightning activity are revealed. This information can help an electric utility to prioritize protection or maintenance.

Technical Data

Minimum System Requirements

CE

Processor	2.1+ GHz Intel Pentium 4, Intel Xeon, Intel Core Duo, or AMD Athlon equivalent
Operating system	Windows® 7 Pro Windows® 10
Memory	Recommended: 2 GB RAM or higher
Hard disk space	5 GB of available space: • 850 MB for install • Up to 50 MB of disk space may be needed in the Windows System directory • 3 GB of available space to be allocated for swap, temporary files, and saved analyses
Display card	24-bit capable graphics accelerator card
Screen resolution	Recommended: 1280 × 1024, 32-bit Minimum: 1024 × 768, 32-bit
Browser	Recommended: Microsoft® Internet Explorer® 8.0 or higher
Other	DVD-ROM drive DVD is required to install FALLS, but not to run it

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www.vaisala.com