



# ASPEN LEAFLET

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## Price Increase on February 1, 2014

We plan to increase prices by 3% on the first day of February 2014. The last price increase was in early 2012. We will honor our existing prices for software and maintenance renewal if you send us a purchase order before February 1, 2014.

The promotional discount on *ASPEN Line Database™* that we offer to users of *ASPEN Line Constants Program™* will also end on February 1, 2014.

## Upcoming Events

A *OneLiner* Class will be held in Burlingame, California, in February 25-27, 2014. More information will be available on the [Events](#) page of our web site by mid-October.

## New Users

## OneLiner and Power Flow v12 Graphics

We released version 12 of *ASPEN OneLiner™* and *Power Flow™* in August 2013. The first impression of most users is that the graphics are more responsive and user-friendly. Gone are the bounding boxes for moving text, and the flash that immediately follows the removal of an object. These improvements are the results of an improved painting method.

In the main window, we have doubled both the number of kV ranges and the number of colors available. We have also added a new Special Color command that lets you assign a color to network objects that were given a certain tag.

There are many new and improved graphical features in the overcurrent relays window. The time-difference slider is by far the most popular. The slider is a dotted line that you can move horizontally with the mouse. As the slider intersects the relay curves, the (current, time) coordinates of the intersection, as well as the time difference between adjacent intersections, are displayed on the screen. See Fig. 1 below. The sliders appear on printed copies, and they are saved within previous curve collections.

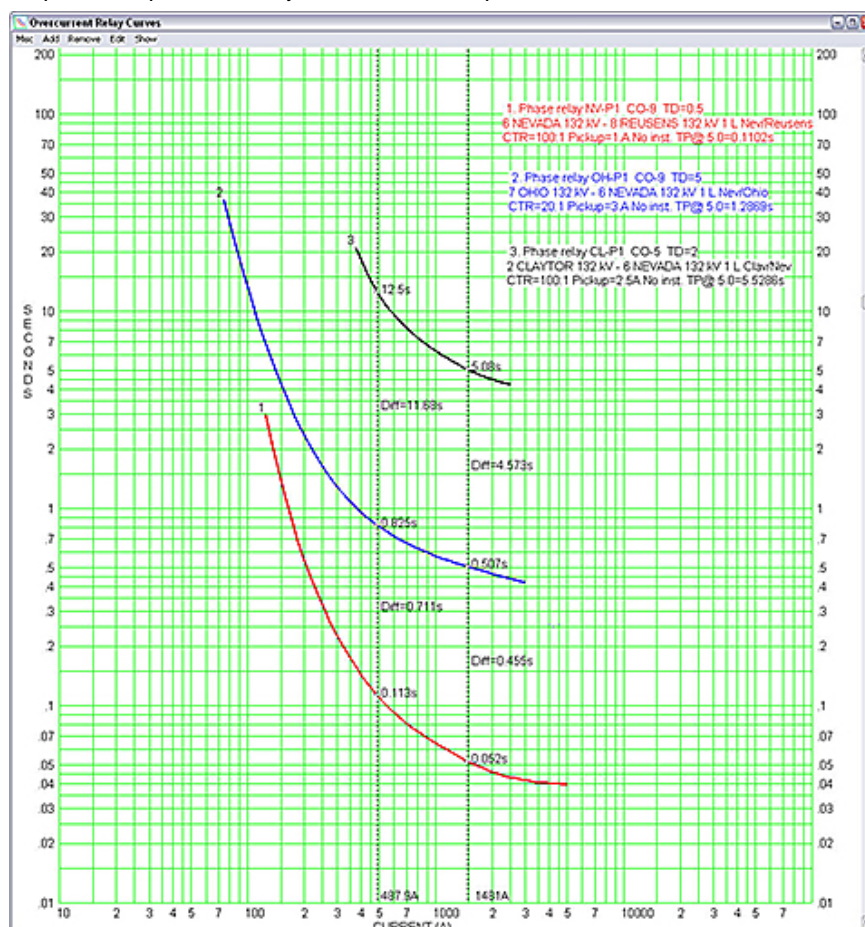


Fig. 1: Time-difference sliders on the Curves Window.

## Since November 2012

### ASPEN *DistriView*™

- Glenn Reddick Professional Services, Elk Grove, CA
- Hestco, Inc., Benton, AR
- Luis Hugo Sanchez Pantoja, Lima, Peru
- Tetra Tech, Inc., Farmington, MA
- WEnergy Global PTE Ltd., Singapore

### ASPEN *Line Constants Program*™

- Middle East Engineering & Dev., Jeddah, Saudi Arabia
- PLM, Inc., Hopkinton, MA
- R-Delta Engineers, Garland, TX
- Sargent & Lundy, Chicago, IL
- Saudi Technologist Consulting Engr., Al-Khobar, Saudi Arabia

### ASPEN *Line Database*™

- El Paso Electric, TX
- Hawaiian Electric,
- Honolulu, HI Hoosier Energy R.E.C., Bloomington, IN
- Memphis Light, Gas & Water, TN
- PG and E, San Francisco, CA

### ASPEN *OneLiner*™

- Ampirical, Inc., Mandeville, LA
- ARTECHE, Estado de Mexico,

The improved Trial Adjustment command is also popular. We have changed the logic to repaint the curve as you alter its time dial or pickup. It is a joy to watch the fluid transformation of the curve when you adjust the time dial continuously with the vertical scroll bar. For the first time, the trial adjustment feature works for fuses, too. When you manipulate the horizontal scrollbar, the program “adjusts” the curve by changing it to that of a similar fuse of different current rating. Also, by popular requests, we have made the trial-adjustment feature work all the time, even when fault-simulation results are not available.

There is not enough space in this newsletter to describe all the new features. We suggest you read the What’s New in Version 12 document (available at our web site) and try some of the new features firsthand. We are always available if you have questions or comments.

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## ASPEN Software Blog

In late August we started a blog to disseminate timely notification of program errors, improvements and related topics. You can view the blog by clicking on a link at the lower right corner of the home page of our web site, or by typing the address <http://aspensoftware.blogspot.com> on your Internet browser. You can add your comments to any of the items in the blog.

You may want to subscribe to the blog if you visit it often. There are two subscription options: (1) You can make the link appear as one of your browser’s favorites under the “Feeds” tab, and (2) you can receive the latest posting by eMail.

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## Integrating *DistriView* with CAD and GIS Data

### *Introduction*

Computer-Aided Design (CAD) and Geographic Information Systems (GIS) used at utilities often hold well-developed models of a utility’s network infrastructure. While the GIS is typically used to support design and mapping activities, having the ability to extract current electrical network data can provide valuable benefits to ASPEN *DistriView*™ users. Spatial Business Systems, of Lakewood, Colorado ([www.spatialbiz.com](http://www.spatialbiz.com)), has worked with a long-time *DistriView* customer to develop an interface to *DistriView* based primarily on commercial off-the-shelf (COTS) products.

The existing data capture process used at this customer was based on manually building *DistriView* models from paper maps. The models were difficult to maintain and easily became out of date with “As Built” construction activities. When the utility began a digital data conversion process to support a company-wide GIS it was decided that it would be vital to leverage this integration. This has allowed the customer to have higher data quality, currency and accuracy in the *DistriView* models.

Mexico

- Beaches Energy Services, Jacksonville Beach, FL
- California Dept. of Water Resources, Sacramento, CA
- CenterPoint Energy Service Co., Houston, TX
- CH2MHILL, Englewood, CO
- Fred Wilson & Associates, Jacksonville, FL
- Intermountain Consumer Prof. Eng., Midvale, UT
- LABELLA Associates, Rochester, NY
- MESA Associates, Knoxville, TN
- metaGRA engineering, Delta, BC, Canada
- Mission Support Alliance, Richland, WA
- North Plains Electric Coop, Perryton, TX
- Point Comm Inc., Mississauga, ON, Canada
- Power-Tech Engineers, Walnut, CA
- PS Technologies, Calgary, AB, Canada
- RealTime Utility Engineers, Inc., Marlborough, MA
- Relays Servicos em Protecoes de Sistemas, Sao Leopoldo, RS, Brazil
- Sargent & Lundy, Chicago, IL
- SGC Engineering, Orono, ME
- Shermco Industries, Irving, TX
- The ASSET Company, Canton, MS
- Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil
- Valley Electric Association, Pahump, NV
- VI Engineering, Houston, TX
- Virelec Ltd., Mississauga, ON, Canada

## About the Solution

A diagram of the solution is shown in Fig. 2. The new interface is based on the use of FME software from Safe Software ([www.safe.com](http://www.safe.com)), with custom plug-ins to support the *DistriView* model creation. For this client, the GIS data is stored in an Oracle Spatial database. But in general, FME supports all the major CAD and GIS products, including Esri, Smallworld, Intergraph, Autodesk, Bentley and others.

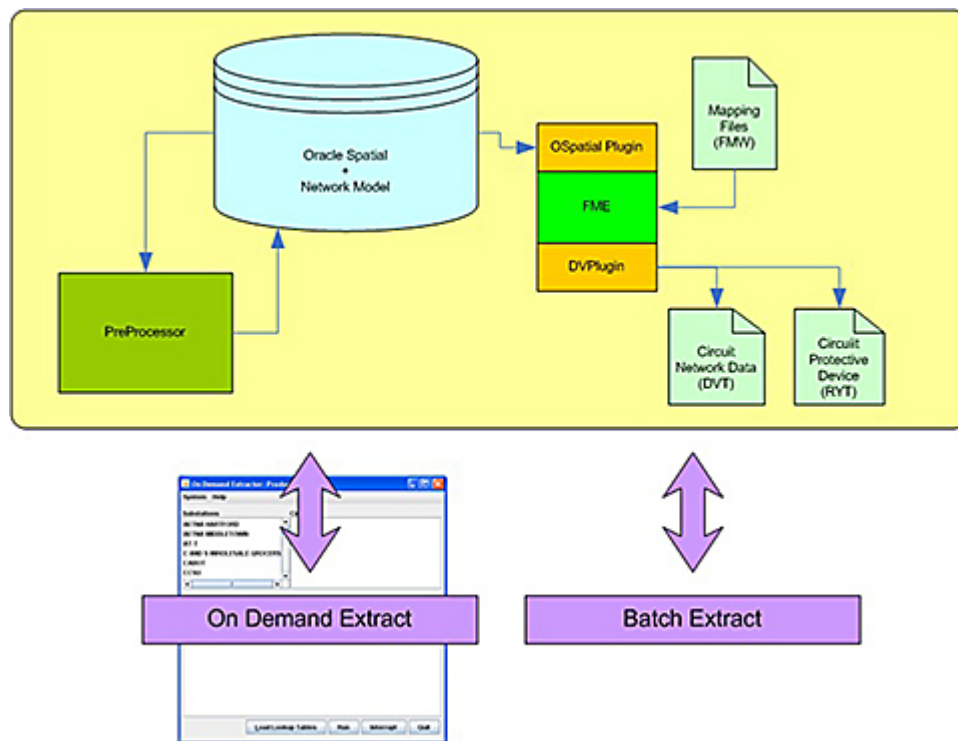


Fig. 2: Interface between *DistriView* and GIS.

## Process flow:

1. Jobs can be initiated either in batch mode, where they run on a nightly schedule based on automatically detected changes to circuits, or via an on-demand interface that allows *DistriView* models to be created as-needed.
2. When the job starts, data is run through a pre-processor that does several things. First, the data is extracted by substation and circuit; then, traces are run and the data ordered. After that, nodal reduction occurs to simplify the ordered network and perform additional tasks, such as gathering segment loads. Finally, network data references are stored with additional metadata to provide input to FME.
3. The preprocessed circuit data is then extracted via the FME product. At this time the GIS network model is enhanced with electric property data from look-up tables. This data is then formatted and written to *DistriView* Network Data (DVT) and Protective Device (RYT) files.
4. The *DistriView* user then consumes the data for analysis.

## Initial Results

The initial results have already been very beneficial in several areas. The process has been used to validate data conversion which has been helpful in identifying and correcting numerous source errors in the data. The interface has also proven that an automated

## ASPEN Power Flow™

- Sargent & Lundy, Chicago, IL

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## ASPEN Relay Database™

- NSTAR, Westwood, MA
- Tri-State G&T Association, Montrose, CO

process will work, thus providing the opportunity for substantial time savings in performing system analyses. The other concern, being effective retrieval time, has been validated during the testing process, ensuring that *DistriView* model generation can be run with minimal wait time for users, either in batch, or on-demand mode.

This type of solution is based on commercial technologies and can support multiple GIS and CAD platforms. Organizations that may be interested in learning how such an approach can address their data integration needs can gain more information by contacting us at ASPEN, [info@aspeninc.com](mailto:info@aspeninc.com), or Spatial Business Systems, [info@spatialbiz.com](mailto:info@spatialbiz.com).

*Editor's notes: This article was contributed by Dennis Beck of Spatial Business Systems.*