ASPEN LEAFLET

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Relay Database Update

Version 2000 of the *Relay Database*™ has many new features that users have asked for, including the ability to import SEL-5010 data, create pick lists, and link files to objects. The new *Relay Database* also comes with three user-defined tables. The following describes these features.

SEL-5010 Data Import

The number of setting parameters in a relay has grown from just a handful to many hundreds in the last two decades. Entering this information into a relay database by hand has become all but impossible.

We are meeting this challenge by implementing a feature to extract relay settings from proprietary relay-setting files and enter them into the *ASPEN Relay Database*. As a first step, the new command will work with SEL-5010 data files. The SEL-5010 software is a communication program for relays made by Schweitzer Engineering Laboratories. Among its many features, it enables a relay engineer to retrieve and transmit the relay settings electronically. The 5010 program employs an Access database file as a storage medium.

Given a 5010 data file, the new feature in the *ASPEN Relay Database* will help you create a "request" - our terminology for a complete set of relay settings - in the *ASPEN Relay Database*, as follows:

1. Run the 5010 program and export the settings of a relay - called a "relay scheme" in 5010 parlance - in a text form.
2. Start the *ASPEN Relay Database*. Open the Scan Form for the location where the new relay will go, and then click on the "Import SEL-5010" button. The program will ask you to enter the path name of the 5010 text file.
3. Based on the relay setting data, the *Relay Database* will identify the relay templates that most resemble the incoming data. See Fig. 1. If you press the "Show Details" button, the program will show you an item-by-item match between the incoming data and one of the templates. See Fig. 2. You can either select one of these templates as the "relay type" for the new relay, or direct the *Relay Database* to a new relay type by pressing the "Make New Template" button.

Fig. 1: For this SEL-551 relay the Relay Database found two possible templates. The first has a perfect match. The second as 6 more parameters than the incoming data.

The *Relay Database* will then create a new relay object and store the setting data in a new request. The first data field of the relay is set to the SEL scheme name. A very similar procedure is used to create a new request for an existing relay. The only difference is that the program will omit the last step, because the relay template will be that of the existing relay.

We are making two important changes to the database schema to accommodate the SEL setting information. First we lengthen the settings field to 160 characters, from 90. Second, we make the "Group" name a composite key of the Settings table. With this change we are able to store the settings for multiple groups - specifically, groups "1" through "7" - in a single relay. Users of the *ASPEN Relay Database* will get a data pump to moves their existing data to the new tables.

Fig. 2: The left column shows the parameters in the template and the right column shows the parameters in the coming data. The blank spaces shown are from parameters in the template that have no corresponding entries in the incoming data.

The SEL import function is only a first step. Most relay manufacturers have computer programs that are similar in functionality to the SEL-5010. We plan to work with the other relay manufacturers to create import commands.

IN THIS ISSUE

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Pick Lists

A pick list is a list of items that a user can enter into a data field. As an example, you may specify the following pick list for the "Status" field of a request: "Historical", "In Service", "Out of Service", and "Emergency". Pick lists simplifies the work of entering data and enhances uniformity.

The database administrator can specify the pick list within the *Relay Database* Administration Program. Each item on the data form can have its own list, and the lists can be of any length. When you run the *Relay Database* Program and click the right mouse button on a field that has a pick list, a purple list box will appear. You can select any item in the list by clicking on it with the mouse. See Fig. 3.

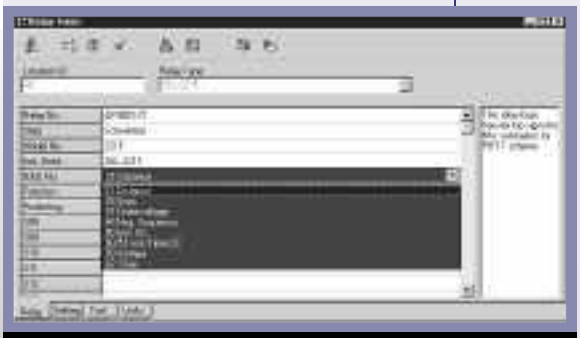

Fig. 3: Pick List

Linked Files

This new feature lets you link a file to any object in the *Relay Database*. For instance, you can link drawing files to a relay record, and test-equipment files to a relay test record. The possibilities are endless. The links are stored within the *Relay Database* in the form of strings that contain the full path name of the files. The contents of the files are not stored in the database.

Fig. 4 shows the dialog box for linked files. When you highlight a linked file and click on the Open button, the *Relay Database* will automatically launch a program to open the file you highlighted. For example, if the file you highlighted has a .doc extension, the *Relay Database* will launch MS Word, with file opened for viewing and editing.

Fig. 4: Linked Files

The linked file feature works also for web and eMail addresses. The *Relay Database* automatically analyzes the "file name" and opens either the web browser or the eMail application when you press the Open button.

Tables for User Defined Objects

We added three user-define tables. You can use them to store data on motor/generators, communication equipment, capacitor/reactor, or any object of your choice. You can name these three objects in the *Relay Database* Administration Program. The *Relay Database* will put the names you specify on the headers of data forms, queries and reports. The layout of the data forms for the user-defined objects is identical to that for CT, PT, Breakers and Transformers. There are also new reports and queries for these user-defined objects.

Other improvements in the new *Relay Database*, include a new query for relay tests, and the ability to print multiple reports from the Query Window.

Version 2000 of the *Relay Database* is scheduled for release in November or December of this year.

Upcoming Events

OneLiner Users Group Meeting

- Spokane, WA, Oct. 23, 2000.

DistriView Training Class

- San Francisco, CA, Jan. 25-26, 2001.

OneLiner Training Class, Nashville, TN

- Nashville, TN, Feb. 6-9, 2001.

New Users

Breaker Rating Module

- American Electric Power, Columbus, OH
- Brazos Electric Power Coop., Waco, TX
- Orange & Rockland Utilities, Pearl River, NY
- Public Service of Colorado, Denver, CO

DistriView

- EDELNOR, S.A., San Miguel, Peru
- Emerald PUD, Eugene, OR
- Canadian Niagara Power Co., Fort Erie, Ontario, Canada

Line Constants Program

- Basin Electric Coop., Bismarck, ND
- Colorado Springs Utilities
- Orange & Rockland Utilities, Pearl River, NY
- System Protection Serv., Lewiston, ID
- UGI Utilities, Inc., Wilkes Barre, PA

OneLiner

- Basin Electric Coop., Bismarck, ND
- ETESAL, La Libertad, El Salvador
- Lansing Board of Water & Power, MI
- Orange & Rockland Utilities, NY
- PowerGrid, Ltd., Singapore
- Rio Grande Energia, Porto Alegre, Brazil
- Springfield Utility Board, OR
- System Protection Serv., Lewiston, ID
- UGI Utilities, Inc., Wilkes Barre, PA

Relay Database

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- Colorado Springs Utilities, CO
- Oklahoma Gas & Electric Co.
- Orange & Rockland Utilities, NY
- Rochester Public Utilities, MN
- UGI Utilities, Inc., Wilkes Barre, PA

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