



ASPEN LEAFLET

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Relay Data Download

Version 2002 of the *ASPEN Relay Database™*, to be released in September 2002, has the capability of downloading relay-setting data from four different sources: an SEL-5010 MDB file, an SEL-5010 text file, an SEL-5030 AcSELeerator® file, or an ASPEN text data file. The ASPEN text data file is a comma-delimited text file with a layout very similar to the one currently used for importing setting templates. This file format serves as a “catch-all” format to enable users to download relay settings from any foreign source.

When you import data in the Settings Form, the program overwrites existing settings with the new data. This third option is new.

We implemented a Data Transfer Wizard to guide you through the process of importing data. Depending on where

one scheme. The Wizard then displays a list of candidate ASPEN relay templates (Fig. 2). You can either select an existing relay template or create a new one. The next screen shows you all the relevant information, including statistics of the incoming data and the number of matching parameters. If a new template is being created, the next page asks you to confirm the template name. The actual data transfer commences when you press the Next button.

When the source is an SEL-5010 MDB file, the program stores the SEL scheme ID in the Relay Database as a “link”, so that you will be able to upload the modified data back to the exact same scheme in the SEL-5010 database later on.

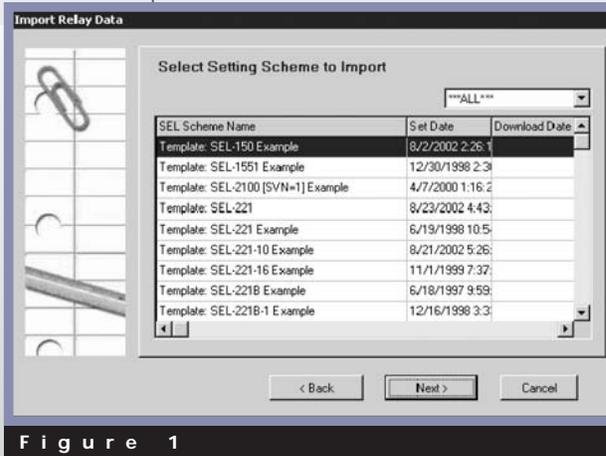


Figure 1

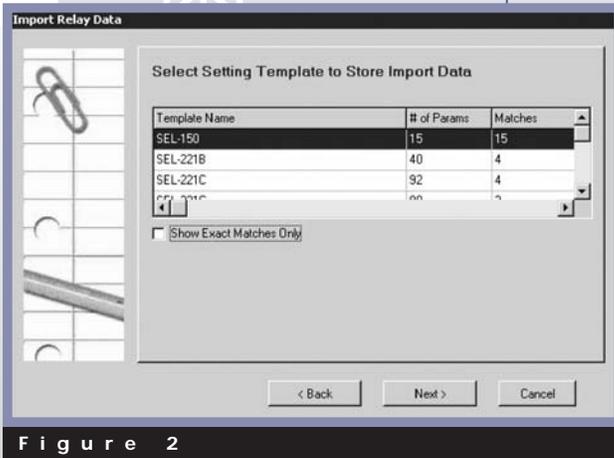


Figure 2

you press the Import Data button and on what type of data you want to import, the Wizard will present to you a different series of pages with step-by-step instructions to complete the data transfer. You can go back and forth between the pages by press the Next and Back buttons. The following describes what happens when you press the Import

You can import setting data in three different places within the Relay Database: in the Scan Form, in the Setting page of the Relay Form, and in the Settings Form. When you import data from the Scan Form, a new Relay record with a single Request is created. When you import data in the Setting page of the Relay Form, a new Request record is created.

Data button in the Scan Form.

The Wizard begins by asking you to select one of the four data formats. It then asks you to specify a file name. If the source is an SEL-5050 MDB or text file, the next page (Fig. 1) asks you to select one of the schemes within the file. This page is omitted for files of the other two formats because each file has only

New SEL-5010 Data Upload

The ability to uploading data from the Relay Database to an SEL-5010 file is a new feature of the *Relay Database Program V2002*. To upload data to SEL-5010 file you must use the Export Settings button in the toolbar of the Settings Form and select the SEL-5010 format in the Export Data Wizard. The program will ask you for the file name,

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34 North San Mateo Dr., San Mateo, CA 94401
 Phone: (650)347-3997 FAX: (650)347-0233
 schan@aspenninc.com www.aspenninc.com



followed by a dialog box that lists one or more target SEL schemes in the file (Fig. 3). If the current setting request was downloaded from a SEL setting scheme earlier, the program will highlight that scheme in the list. Before uploading the data, you may want to press Show Details button in the Ready to Copy Data page of the Wizard to see which parameters have been changed.

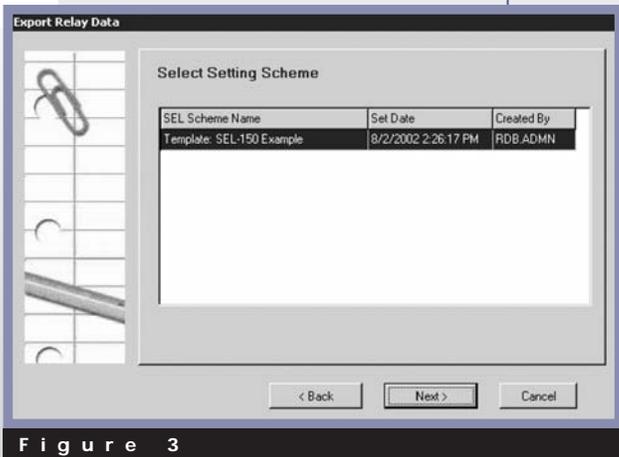


Figure 3

would like to obtain test quantities and run the script FLTEXPRT.BAS. A dialog box will appear to ask you to specify the faults of interest, the CT and PT ratios, and the output format—which can be either tab-delimited text file, CSV file, Doble SS1 file, or COMTRADE. Regardless of the output format, the output file will contain pre- and post-fault

current and voltages in secondary quantities. When you select a relay group on a line that has relay groups at both ends, the program can export the quantities at the two ends of the line to separate output files for end-to-end testing purposes.

The script FLTEXPRT.BAS was shipped with the V2001E update of OneLiner.

Script for Fault Location

The *PowerScript* program

for fault location employs a brute-force method: It simulates different types of faults with different fault impedances around the relay, and then it makes a systematic search for the result that best match the observed voltages and currents. We have found this method to be robust and accurate. The script is named FAULTLOC1.BAS. It was shipped with V2001E updated of *OneLiner*. Please give it a try.

Upcoming Events

OneLiner Users Group Meeting

- Morning of October 21, 2002, Spokane, WA.

PowerScript Programming Workshop

- Afternoon of October 21, 2002, Spokane, WA.

Details and sign-up sheets for these events are in the Events page of our web site.

New Users

Breaker Rating Module

- Central Electricity Authority, New Delhi, India
- New York ISO, Schenectady, NY
- PacifiCorp, Salt Lake City, UT

DistriView

- CNFL, La Uruca, Costa Rica
- Greenville Electric Utilities, TX
- IMPulse NC, Inc., Mount Olive, NC
- Jennico Enterprises, Inc., Lake Worth, FL
- Merced Irrigation District, CA
- Power Engineers, Inc., Hailey, ID

Line Constants Program

- Central Electricity Authority, New Delhi, India
- PJM Interconnection, LLC, Philadelphia, PA
- Sentry Technical Services, Alberta, Canada
- Merced Irrigation District, CA
- Jeddah Cable Company, Jeddah, Saudi Arabia
- Utility Services, Corp., Dalton City, IL

OneLiner

- CegertecHestco, Inc., Quebec, Canada
- Central Electricity Authority, New Delhi, India
- Demodar Valley Authority, Jharkhand, India
- Leonhardt Consulting, Alpheretta, GA
- Relay Application Innovation, Pulman, WA
- SNC – Lavalin, Inc., Quebec, Canada
- Sentry Technical Services, Alberta, Canada
- TransEnergie, Quebec, Canada
- Utilities Services Corp, Dalton City, IL.

Power Flow

- Demodar Valley Authority, Jharkhand, India
- Greenville Electric Utilities, TX

Relay Database

- Kauai Electric, HI
- Soudi Consultants, Dublin, CA

This feature, together with the enhanced SEL-5010 download feature, give you the ability to manage complex SEL setting data. In a future update, we will add the ability to export setting data in the AcSELeRator SEL-5030 format. Data-exchange features for other relay manufacturers are also in the works.

Script to Export Relay Test Quantities

We have written a *PowerScript* program to help you generate a file of relay-test quantities, based on simulation results from *OneLiner*. The output from the script is intended for two applications: relay testing at a single location, and end-to-end testing at two ends of a transmission line.

To use this feature, you must first simulate faults the usual way. Then select a relay group at the location where you

