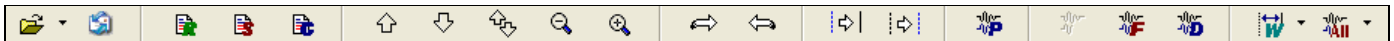


DFR Waveform Record

Data Toolbar



**Features:**

- Opens various types of proprietary & standard formats from DFRs, Digital Relays, Meters ...
- Translates fault records from their native format to the standard COMTRADE format.
- Provides calculated channels for modeling of missing phases, sequence components, fault resistance...
- Creates combined event sequences from various types of digital fault records.
- Merges multiple fault records into one COMTRADE record (composite fault records).
- Supports the IEEE PSRC Report "Naming Convention for Time Sequenced Data Files".

**Channel Operations:**

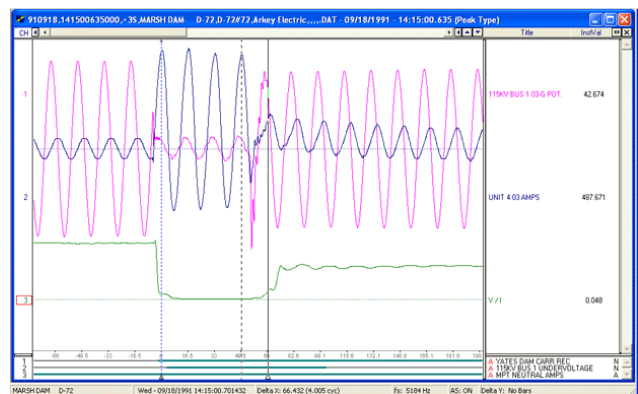
- Addition, subtraction, multiplication, division
- Phase shift
- Half-cycle & Full-cycle envelopes
- Over-triggers & Under-triggers
- Harmonic Filters
- Convert from secondary to primary values & visa versa
- Positive, negative & zero sequence currents
- Positive, negative & zero sequence voltages
- Line/Graph selection
- Missing phases
- Phasor diagrams
- Directional harmonic diagrams
- Calculate % of maximum rating
- Detect imbalanced circuits
- Model fault resistance

**Product Description:**

Wavewin™ is used for fast line restoration, fault and disturbance analysis, dynamic relay testing, real time monitoring of evolving loads, contingency planning, and intelligent maintenance applications.

The software is a specialized, high-resolution graphic interface designed for universal management, display and analysis of digital fault records. The software supports the standard IEEE-PES-PSRC COMTRADE format and the standard CSV format (which also allows for trending of periodic load measurements over long periods of time).

The main benefits are increased system reliability and reduced engineering time.



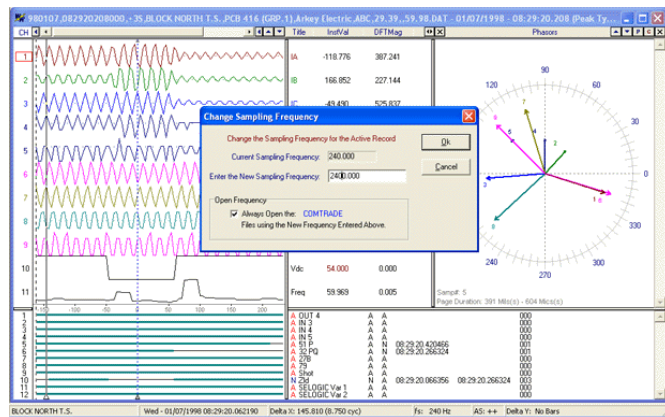
Calculated Fault Resistance Channel - V / I

**Waveform Operations:**

- Merge selected analog & digital channels
- Append selected analog & digital channels
- Peak & cycle hopping
- Amplitude & time scaling
- RMS & phase calculations
- Instantaneous values
- Time/Manual sync data cursors across multiple records
- Super impose channels
- Change sampling frequency
- Add & remove cycles
- Delta magnitudes
- Delta times
- Pick, mark & save RMS & phase values to ASCII File
- Fault time bar
- Digital events & sensors display

**File Operations:**

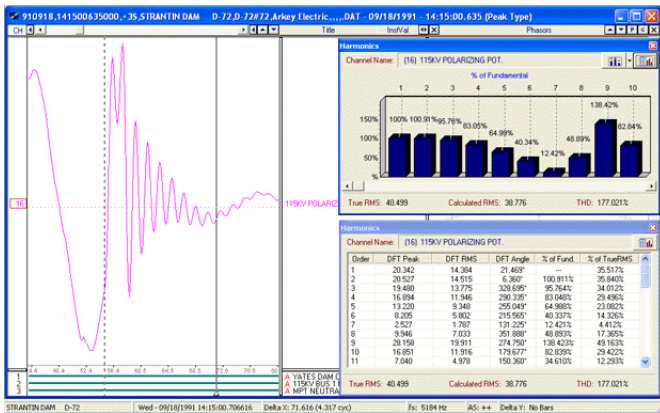
- Sequence of events
- Append & Merge marked files
- Convert to COMTRADE
- Rename to the IEEE PSRC long naming convention
- Open all selected waveform files
- Automatic fault summary reports
- Fast search and query engines
- Specialized DFR & Comtrade copy/move engines



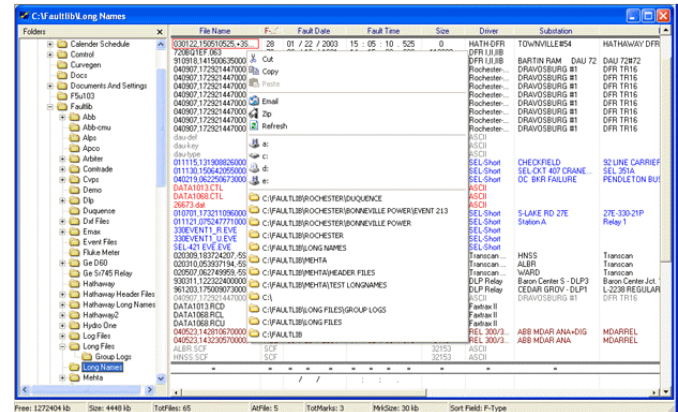
Change Sampling Frequency from 240 Hz to 2400 Hz

**Harmonics:**

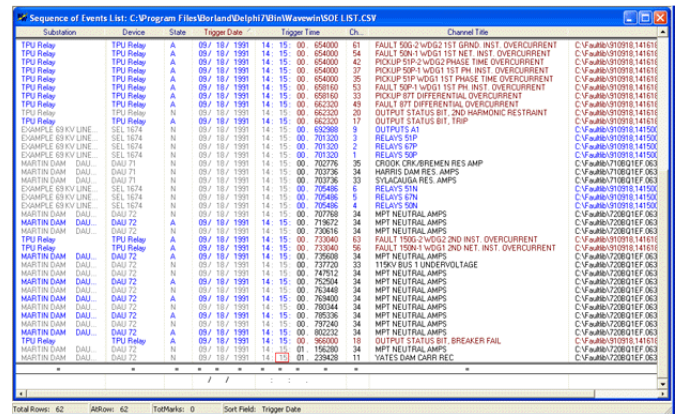
- Sliding window harmonic analysis
- Dynamic/Directional harmonic analysis



Harmonics – Tabular, Vector & Histogram



Favorite folder navigation & common file naming convention



Sequence of events table w/ DFR and relay events & sensors

**Contact Us:**

To purchase the Wavewin software, please contact our sales department @ 800-818-3463, [sales@softstuf.com](mailto:sales@softstuf.com).

Hours: Monday - Friday, 9:00 a.m. to 5:00 p.m. EST (Visa, Master Card and/or Purchase Orders accepted)

**Mailing Address:**

**Support:**

SOFTSTUF, Inc.  
P.O. Box 40245  
Philadelphia, Pa 19106-0245  
[www.softstuf.com](http://www.softstuf.com)

Phone: 609-677-8718  
Fax: 215-625-2497  
[support@softstuf.com](mailto:support@softstuf.com)