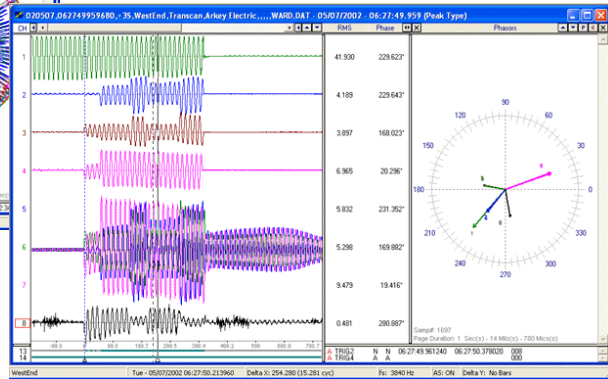
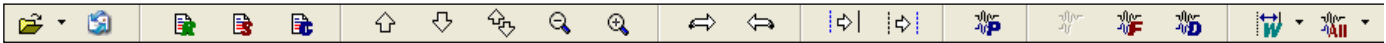


Periodic Load Data



Fault and Disturbance Data

Data Toolbar



**Features:**

- Reads all three types of the COMTRADE standard formats from DFRs, Digital Relays, Meters and more.
- Converts COMTRADE formats from one format type to another (IEEE Std. C37.111-1991/1999/2013).
- 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 IEEE Std. C37.232 (COMNAME - Common Format for Namind Time Sequenced Data Files).

**Product Description:**

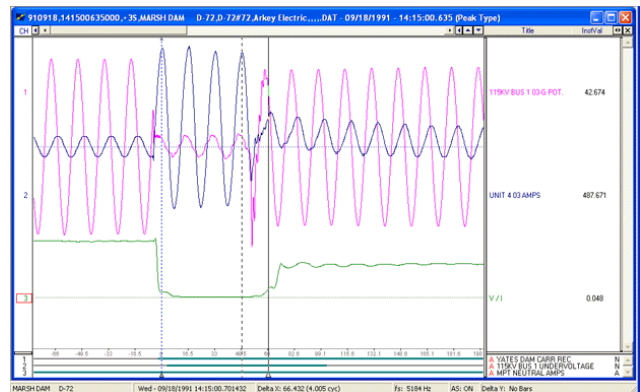
The software is used for line restoration, fault and disturbance analysis, dynamic relay testing, real time monitoring of evolving loads, contingency planning, and intelligent maintenance applications.

The software is a specialized, high-resolution graphic interface designed for universal management, display and analysis of digital fault records. The software supports IEEE Std. C37.111 (1991, 1999, and 2013 COMTRADE formats) and the standard CSV format (allows for trending of periodic load measurements over long periods of time).

**Channel Operations:**

- Add, subtract, multiply and divide channels
- Shift phases and align channel data
- Plot RMS profiles and envelopes
- Plot harmonic waveforms and histograms
- Plot sequence components
- Plot real and imaginary components
- Plot watts, vars, and power factor
- Convert between secondary and primary values
- Convert between Peak and RMS calibrated data
- Correct polarities of currents and voltages
- Reconstruct missing phases
- Display phasor diagrams and circular charts
- Calculate fault resistance
- Calculate single ended fault location
- Calculate double ended fault location

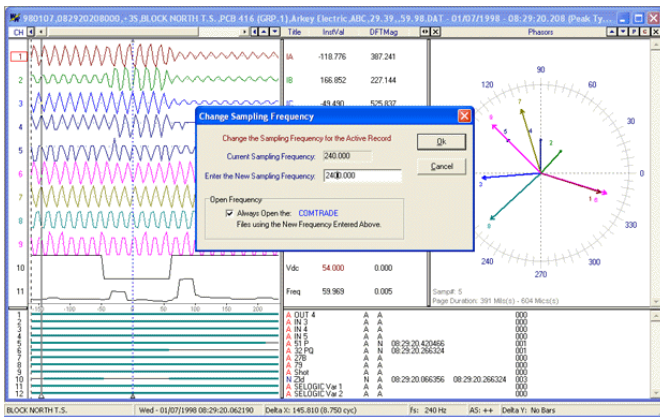
The main benefits are increased system reliability and reduced engineering time.



Calculated Fault Resistance Channel - V / I

**Waveform Operations:**

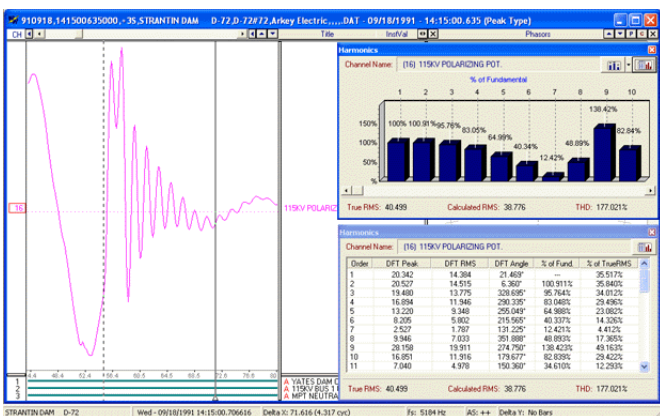
- Merging selected analog & digital channels
- Appending selected analog & digital channels
- Peak and cycle hopping
- Amplitude & time scaling
- RMS, phase, and crest calculations
- Synchronizing data bars across multiple records
- Superimposing currents and voltages
- Changing sampling frequency
- Adding and removing cycles
- Measuring fault durations
- Creating macros with RMS & phase values
- Displaying digital events & sensors
- Saving views and software channels



Change Sampling Frequency from 240 Hz to 2400 Hz

**Harmonics:**

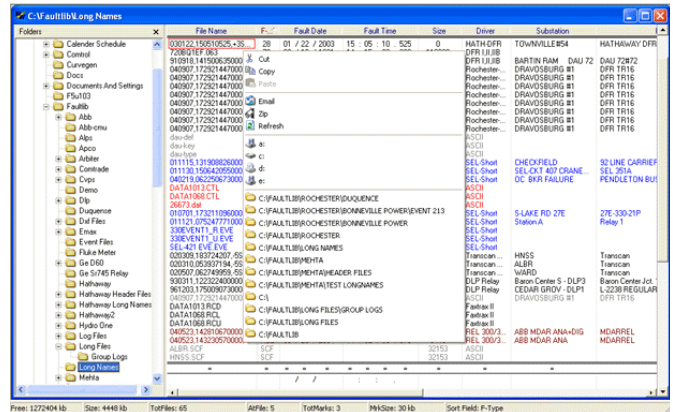
- Sliding window harmonic analysis
- Dynamic/directional harmonic analysis
- Total harmonic distortion calculation



Harmonics – Tabular, Vector & Histogram

**File Operations:**

- Auto append all marked files
- Auto merge all marked files
- Convert proprietary data to COMTRADE
- Rename to IEEE C37.232-2011 convention
- Open all selected waveform files
- Automatic fault summary reports
- Fast search and query engines
- Specialized copy, move and email engines



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 us at 800-818-3463 or [sales@softstuf.com](mailto:sales@softstuf.com).

Hours: Weekdays 9:00 am to 6:00 pm EST (Visa, Master Card, American Express, and POs accepted)

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