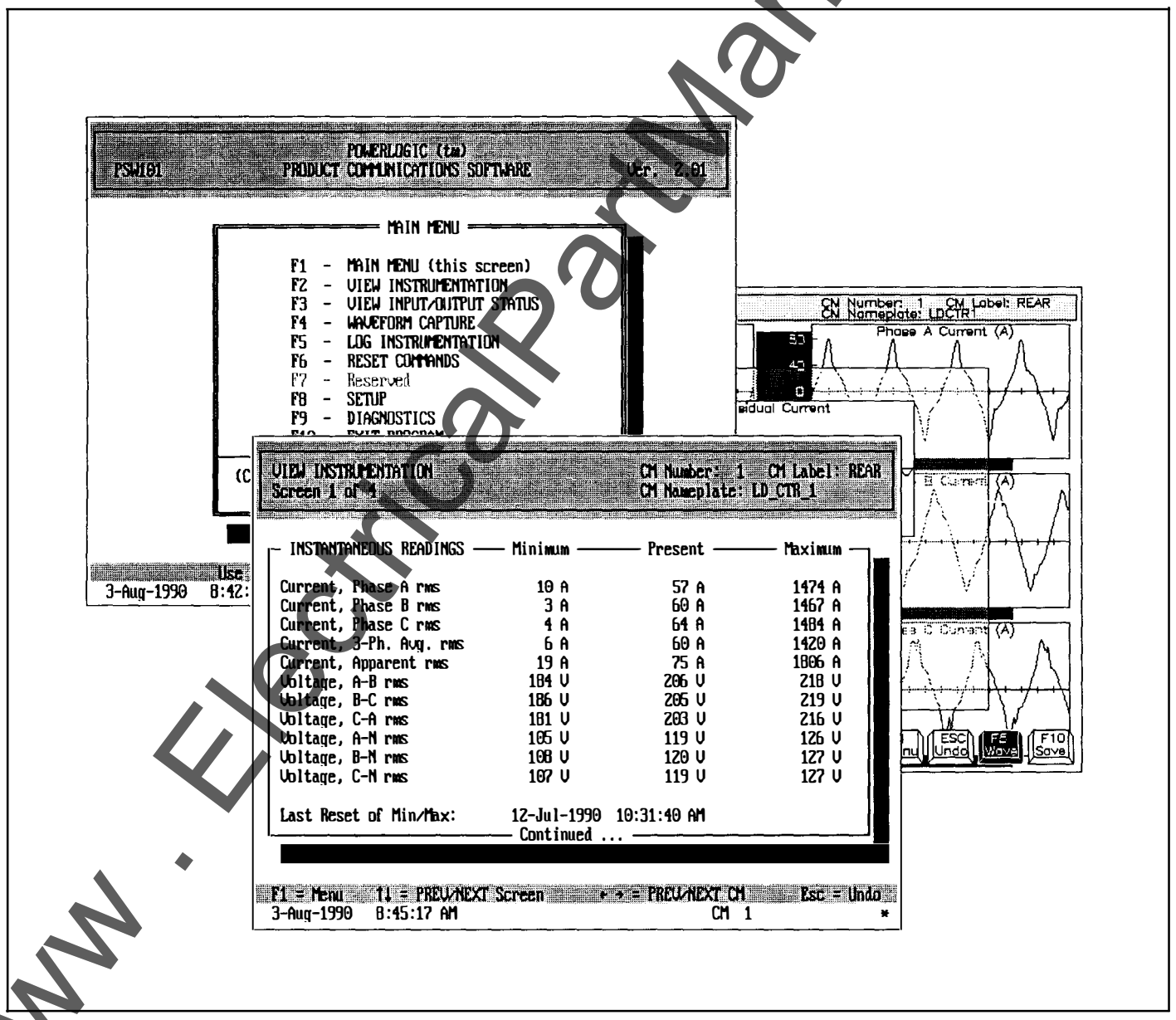
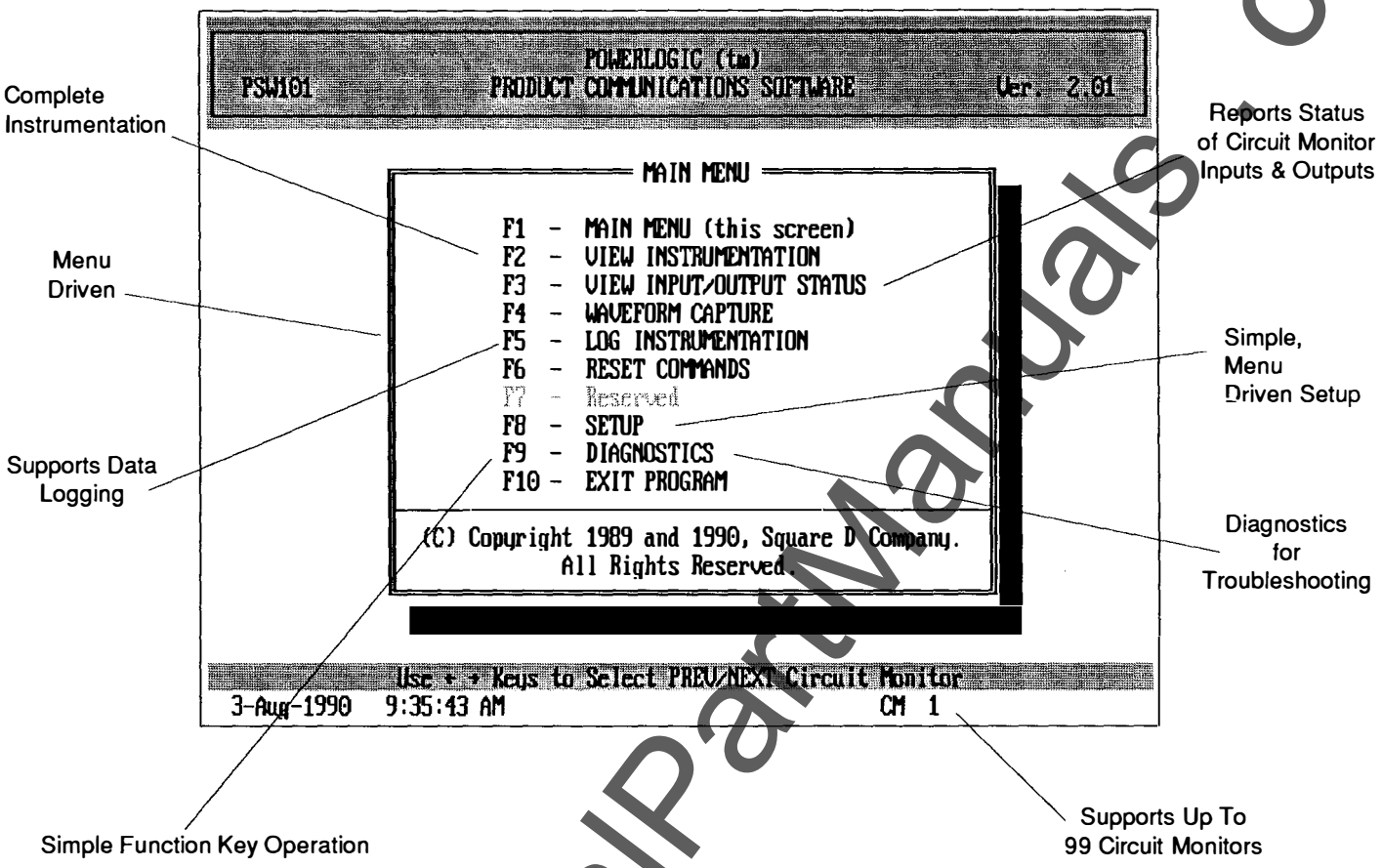
PowerLogic™
PRODUCT COMMUNICATIONS SOFTWARE



PowerLogic™ Product Communications Software ...



PC BASED POWER

PowerLogic™ Product Communications Software is a PC-based software package that extracts real-time circuit information from up to 99 PowerLogic™ Circuit Monitors. The Product Communications Software is extremely powerful and an ideal entry level software package for electronic power monitoring, data acquisition and control. It provides comprehensive information for evaluating, controlling, and reducing energy costs, analyzing equipment utilization, avoiding costly downtime, and many other needs associated with electrical system operations.

COMPLETE INSTRUMENTATION

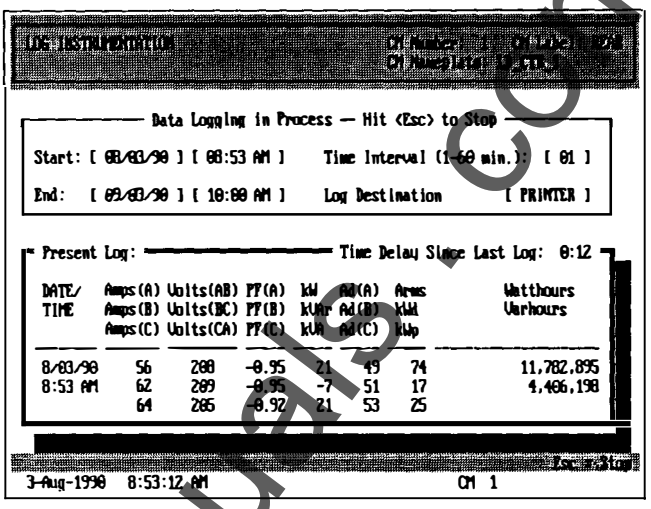
Instrumentation quantities include all types of traditional instantaneous, demand, and energy metering - ammeters, voltmeters, kWH and kVARH meters, power factor meters, etc. These instrumentation quantities are easily displayed using personal computer (or SY/VIEW® workstation) function keys and cursor keys. Instantaneous readings, demand readings, energy readings, and energy alarm conditions of all circuits can be viewed from any personal computer or SY/VIEW® connected to the system.

CENTRALIZED ACCESS OF ALL CIRCUIT INFORMATION

The Product Communications Software centrally displays Circuit Monitor information at personal computers and/or SY/VIEW® workstations. Multiple computers can simultaneously access the same circuit information via Square D's SY/NET® local area network. The SY/NET® network allows a virtually unlimited number of circuits to be monitored by as many personal computers, each computer providing access to all of the information from any given circuit.

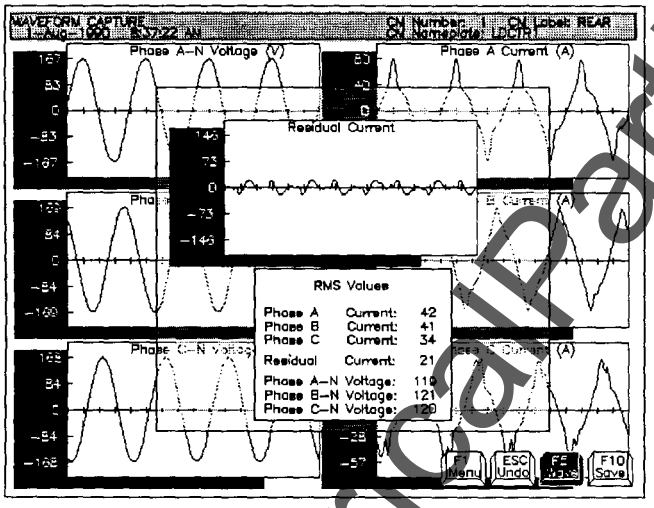
DATA LOGGING

Circuit instrumentation can be logged directly to the screen, to a local or remote printer, or to an ASCII file on disk. The logged data includes per phase amperes and demand amperes, voltages, real and reactive power, power factor, watthours, and many other quantities. Data is logged on a user-specified time interval ranging from 1-60 minutes. Logged data can help pinpoint trouble areas or abnormal circuit conditions, as well as provide a basis for load shedding, future additions or modifications, cost allocation to various departments, better equipment usage, balanced loading, and much more.



IMPORTABILITY OF LOGGED CIRCUIT DATA

Logged data can be saved to a file on disk in simple ASCII text file format. This allows easy access to large amounts of information by commonly used spreadsheet packages, database managers, wordprocessors, and more. Using these software packages, circuit information can easily be manipulated into sophisticated reports, time plots of circuit conditions over time, transformer loading, and more.

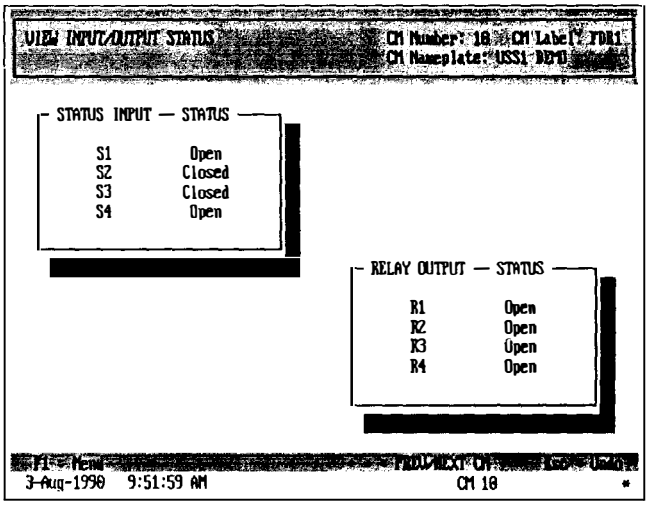


WAVEFORM CAPTURE - STORAGE AND RETREIVAL

Circuit Monitors may be optionally equipped with a waveform capture feature which allows them to digitally sample each of the voltage and current waveforms. Waveforms are sampled at a sufficient rate to detect harmonics through the 31st, providing users with a method of detecting and analyzing problems associated with harmonic producing equipment and sensitive loads. The Product Communications Software allows users to display steady state waveforms, store them to disk, and retrieve them at a later time. In addition, residual current is calculated and displayed for 4-wire systems. This information may be used to detect imbalanced circuit loading, excessive harmonic content, and residual current levels which exceed transformer or cable ampacities. Waveform information is saved in a format compatible with Dadisp waveform analysis software (Class 3080 Type DSP105) to allow extensive post processing.

REMOTE MONITORING OF STATUS INPUTS AND RELAY OUTPUTS

The Product Communications Software displays the status of Circuit Monitor status inputs and relay outputs. Input indication provides the ability to report the condition of breakers (open, closed, tripped, etc.), transformer fans (on/off), power factor capacitors (on/off), and more. The status of output contacts controlling circuit breakers, alarms and similar devices may be checked at a glance.



Product Communications Software Highlights

Instantaneous Readings
- RMS Currents Per Phase & Average
- RMS Voltages L-L and L-N
- Real Power
- Reactive Power
- Apparent Power
- Power Factor Per Phase & Total
- Frequency
- Temperature

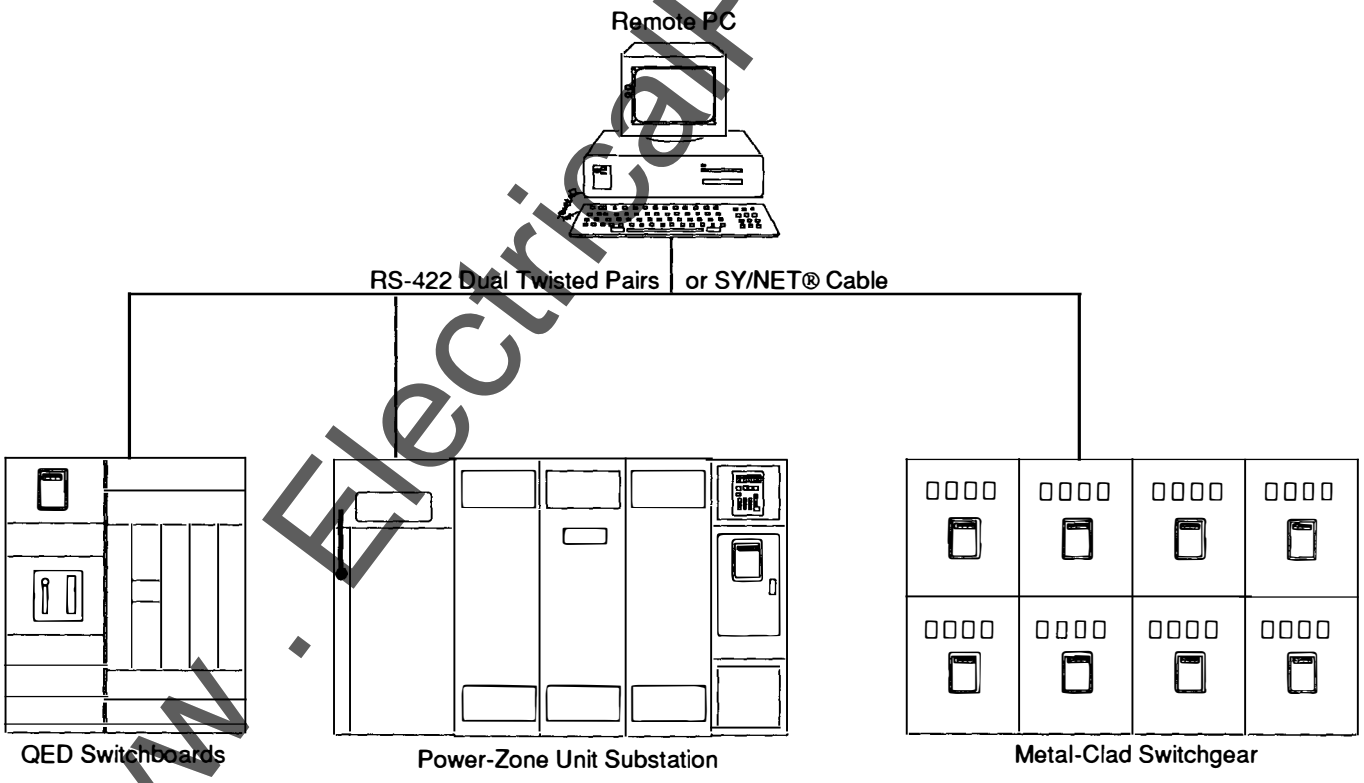
Demand Readings
- Demand Currents Per Phase
- Average Demand Real Power
- Predicted Demand Real Power
- User-Selectable Demand Interval (5-60 min)
- Peaks Levels reported with Date/Time

Energy Readings
- Accumulated Real Energy
- Accumulated Reactive Energy

Energy Management Alarms
- 3 Alarm Levels Set by User
- Maximum Levels Reached are Recorded and Date/Time Stamped

Running Minimums and Maximums
- RMS Currents Per Phase & Average
- RMS Voltages L-L and L-N
- Real Power
- Reactive Power
- Apparent Power
- Power Factor Per Phase & Total
- Frequency
- Temperature

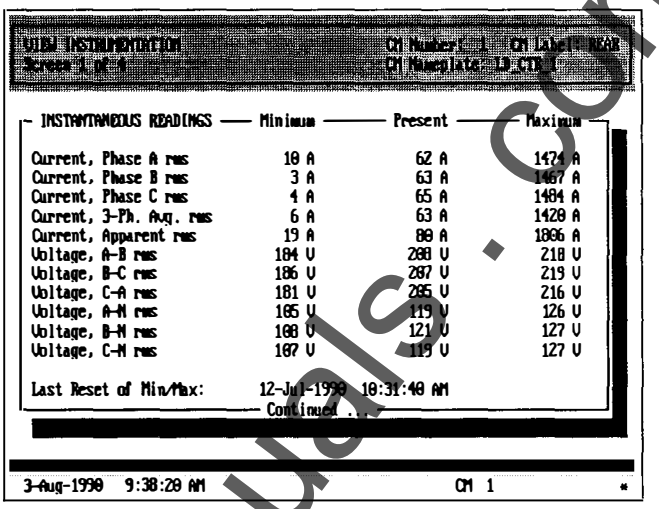
Data Logging
- RMS Currents Per Phase
- RMS Voltages L-L and L-N
- 3-Phase Total Real Power
- 3-Phase Total Reactive Power
- 3-Phase Apparent Power
- Power Factor Per Phase
- Demand Currents Per Phase
- Apparent Current
- Real Power Average Demand
- Real Power Peak Demand
- Reactive Power Average Demand
- Accumulated Real Energy
- Accumulated Reactive Energy
- Saved to Printer or Diskfile
- Importable into Lotus 123, Microsoft Excel, etc.



Typical communications network for power system with Product Communications Software at remote PC.

INSTANTANEOUS READINGS

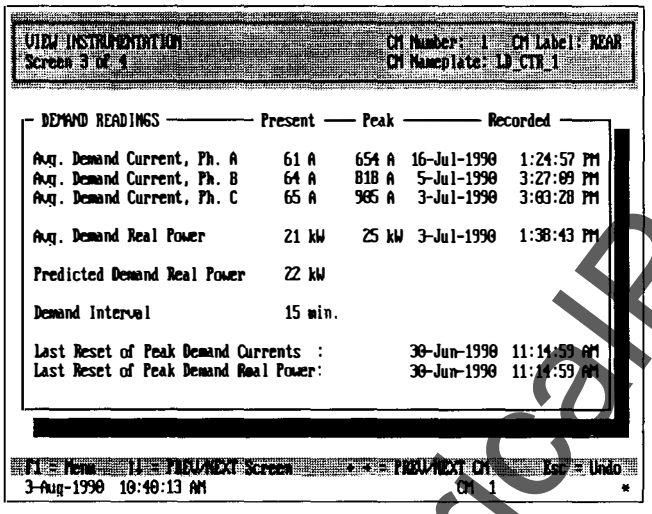
Instantaneous circuit quantities including currents, voltages, power, power factors, temperature, etc., are provided in clear, tabular screens. Minimum and maximum levels associated with the various quantities give historical insight to load swings since the last reset.



RESET INSTRUMENTATION AND HISTORICAL DATA

Peak, accumulated and historical quantities stored in the Circuit Monitor may be reset from the Product Communications software. When these quantities are reset, the date and time of the reset operation are recorded for later reference. Future min/max/peak values are recorded based on conditions following the reset operation. Circuit Monitor values which can be reset include the following:

- Minimum/Maximum Values
- Peak Demand Currents
- Peak Demand Real Power
- Accumulated Energy Values
- Energy Management Alarms



DEMAND READINGS

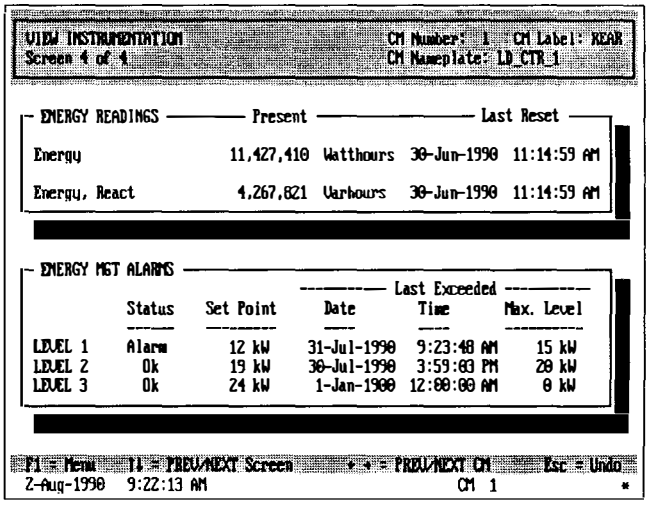
Demand readings include average demand currents, average demand real power, and predicted demand real power. Demand current readings represent the true thermal effects of circuit loading over a 15 minute interval. The time interval of the demand power value is user selectable and can range from 5-60 minutes in 5 minute increments. Peak levels associated with demand currents and demand power are recorded along with the date and time. Predicted demand provides indication of the dynamics of energy usage over the present time interval.

ENERGY READINGS

Accumulated real and reactive energy and status of the energy management alarms are displayed on the energy readings screen. The date and time of last reset of alarm data are displayed to help relate this information over time.

ENERGY MANAGEMENT ALARMS

All Circuit Monitors continuously calculate real power average demand and store the value in nonvolatile memory. Real power average demand is compared to three independent energy management alarm set points specified by the user. The Product Communications Software indicates the condition ('Ok' or 'Alarm'). Should the real power average demand exceed any, one, or all of the three set points, the date, time, and maximum level reached are recorded. This information allows the operator, engineer, or other personnel to make informed decisions regarding energy usage.



PowerLogic™ Product Communications Software ...

EASY SYSTEM CONFIGURATION

System configuration is quick and easy with the Product Communications Software. The entry of CT and PT ratios, Circuit Monitor labels and nameplates, date and time, communication speeds, energy management alarm setpoints, and similar setup parameters is simplified by descriptive menus. Once set, all parameters are stored to disk as a configuration file and can be easily modified if needed.

INCLUDED WITH QUICK-START KIT

The Product Communications Software is supplied with the PowerLogic Quick-Start Kits (QSK-200 or QSK-250). These power monitoring starter kits include all the necessary components to get started in electronic power monitoring with a minimal investment of time and money.

FUTURE ADDITIONS/MODIFICATIONS

The Product Communications Software supports up to 99 Circuit Monitors, whether installed all at once or over a given time. When Circuit Monitors are added or the system configuration is changed, the software can be quickly modified to handle the changes.

POWERLOGIC APPLICATION SOFTWARE SERIES

The PowerLogic™ Application Software Series offers several options to handle varying application requirements. As a part of this series the Product Communications Software provides an easy entry level package. However, as system information requirements increase, PowerLogic™ offers software to support those needs. Solutions for your power monitoring needs are available today.

Personal Computer Hardware and Software Requirements

- IBM XT/AT or 100% compatible (Micro-channel not supported)
- 256 KB RAM Memory
- 5.25" floppy drive (hard drive recommended)
- EGA Color Monitor and Adapter (VGA recommended)
- DOS 2.1 or higher
- (1) Long slot available in PC (for SY/LINK Card)
- (1) SY/LINK® Network Interface Card (8010 SFI-510)*

* SY/LINK® card must be ordered separately.

ORDERING INFORMATION

	CLASS	TYPE
SQUARE D CATALOG NO.	3080	PSW101

CAT. CLASS 3080

TYPE: PSW101 Product Communications Software

For Further Information - Contact your nearby Square D sales office or write to :
Square D Company • PowerLogic • 330 Weakley Rd • Smyrna, TN 37167.