



Aplicaciones y Tecnología, S.A.



Communications program

Protection, control and measuring terminals



Description

The protection, control and measuring terminals as well as the **GID** and **CPD** data processing units, are supplied with a software module generically called **vercom**.

vercom runs over *PC* compatible in **WINDOWS™** environment.

The program is designed for dialoguing directly with each equipment. It allows the connection from the *PC*, either directly through the local port of the equipment or remotely through a modem.

vercom offers to users an easy and comfortable access to all available information from the dialoguing equipment as well as the execution of commands and changes of settings.

Functions

Main functions are as follows:

- **Access, display and listing of all information provided by the equipment, such as:**
 - Status of the equipment and its associated position (breaker, sectionalizers, etc.)
 - Alarms
 - Recordings:
 - Events
 - Oscillography
 - Fault reports
 - Historical data
 - Settings
- Access to all authorized **configuration and settings changes**
- Access to all authorized **operations**
- **Setting Editor** without connecting with the equipment
- Incorporates **databases** of:
 - Settings
 - Equipment
 - Installations
 - Users
 - Passwords
- Assistance for unskilled operators
- **Direct loading** of a group of settings previously edited. The easy generation of standardized setting files, to be used by unskilled operators, must be emphasized. Loading the files into the equipment can avoid the intermediate step of introducing data through display and keyboard.
- **Complete collection of equipment information** for its later edition mode presentation.

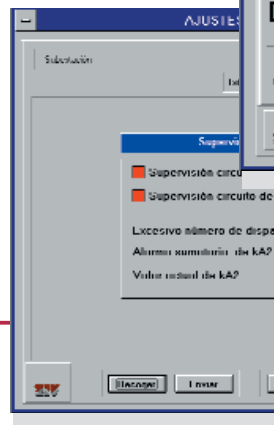
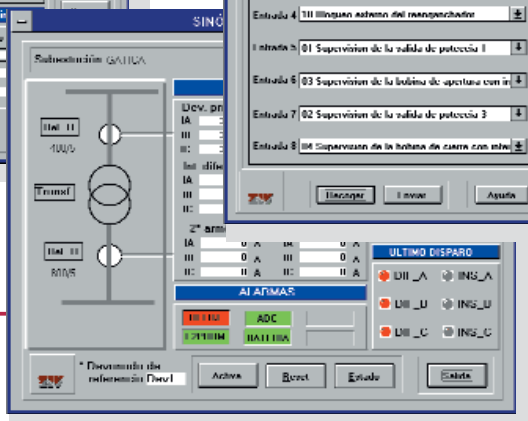
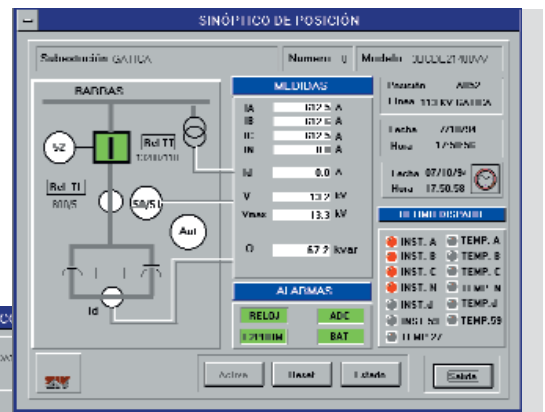
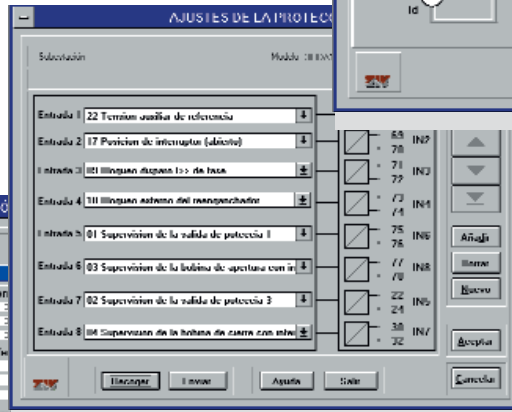
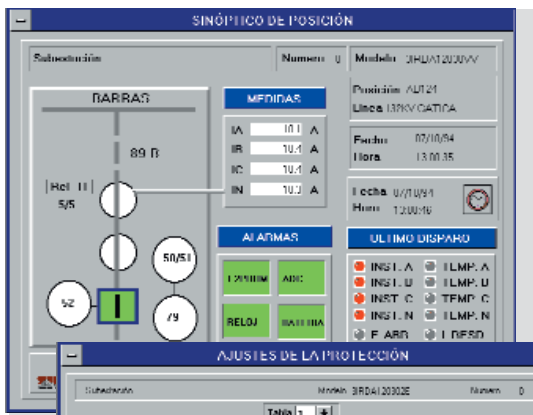
Characteristics of the connection PC-digital equipment:

Required characteristics for this connection are as follows:

- RS232 serial port up to 19.2 kbps, for direct connection to local port or modem.
- Modem control HAYES compatible and V25.

Minimal PC requirements

- 8Mb RAM memory (16 Mb recommended)
- **WINDOWS™** 3.1 enviroment
- 40 Mb Hard Disk
- 2 serial ports
- VGA (640x480) min (800x600 recommended)
- Color monitor VGA.

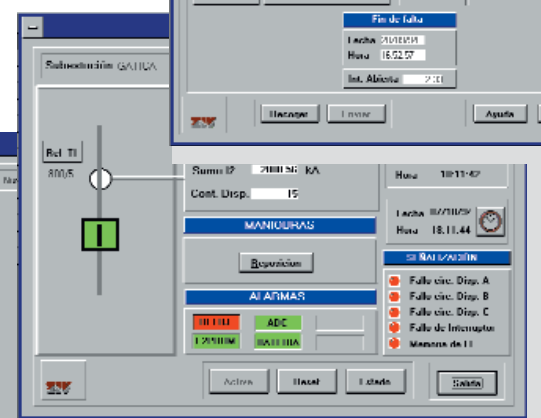
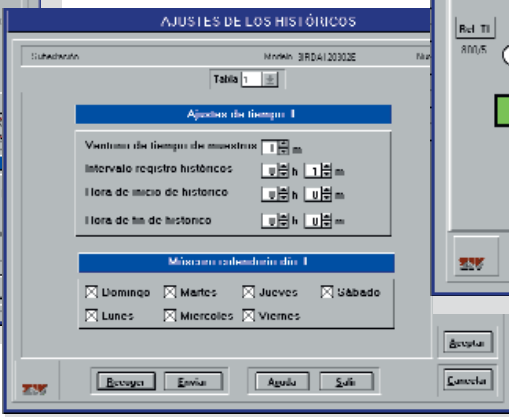
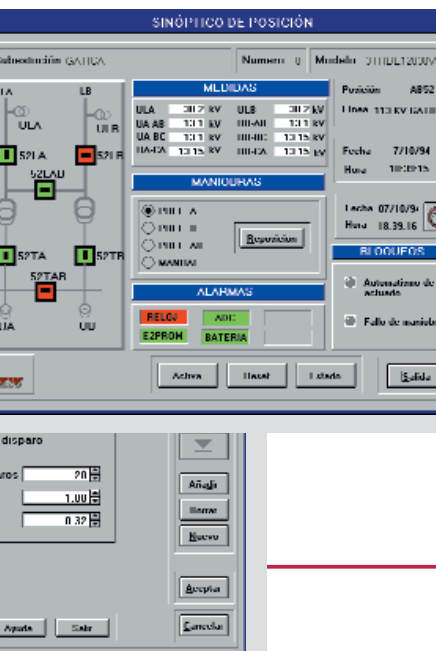
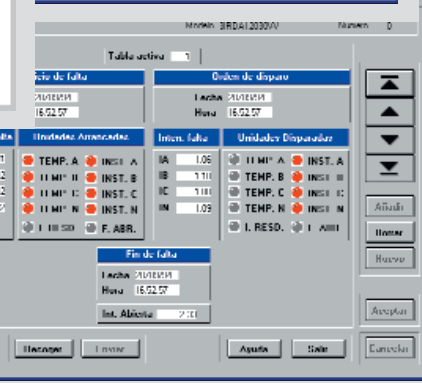
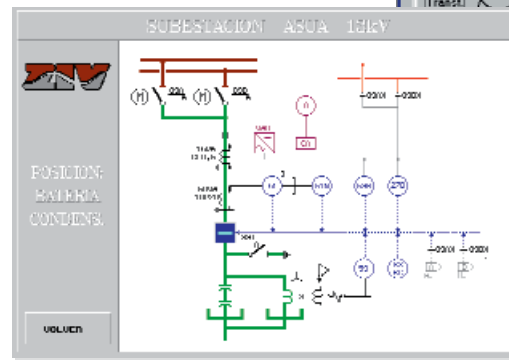
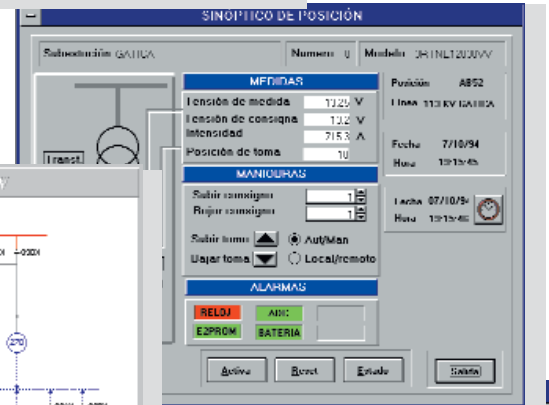
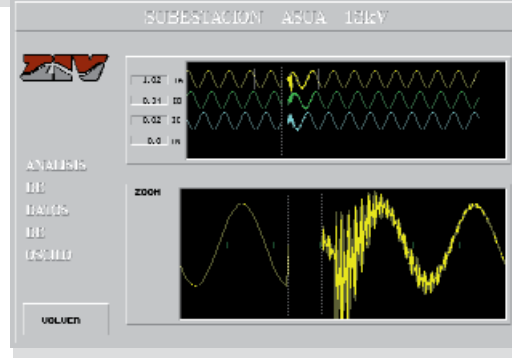
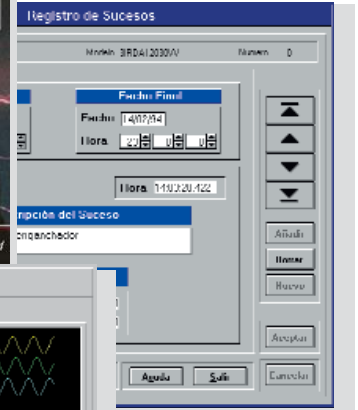


Communications protocol

The communication with all ZIVERCOM's equipment is done through its standard communications protocol.

This modern protocol has been conceived to efficiently satisfy all the requirements for data interchange between substation digital equipment with protection, control, measuring and recording functions, allowing the compatibility between equipment from different manufacturers, supporting ZIVERCOM. The most important characteristics are the following:

- Asynchronous serial communication, non-balanced with semi-duplex coupling, according to **IEC-870-5** for OSI architecture of 3 layers EPA.
- Frame format Ft 1.2
- Multiple physical supports such as RS232 and/or OF (glass or plastic)
- Multiple connection topologies: point to point or multipoint.
- Incorporates priority procedures for control data acquisition and operation commands as well as information data transmission.
- Compatible to **VDE/ZVEI** protocol for protection equipment
- Public domain, supported by a group of users (manufacturers and utilities).





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Parque Tecnológico - 210 48170 - Zamudio - Apartado, 757 - 48080 Bilbao - Tel.: +34 94-452 2003 - Fax: +34 94-452 2140 - <http://www.ziv.es>
Sales Office: Vía Dos Castillas, 23 - Chalet 16 - 28224 Pozuelo de Alarcón - Madrid - Tel.:+34 91-352 7056 - Fax: +34 91-352 6304

The information contained in this catalogue is only indicative. For further information, please consult our manual or our Sales Office