IRIS INSTRUMENTS

PC remote control software for SYSCAL Pro-Switch unit

Comsys Pro software

The **COMSYS Pro** software is a program allowing to control a SYSCAL Pro-Switch resistivity-meter in multi-electrode mode, from a PC.

This software is especially dedicated for monitoring applications as a running step can be defined to run some sequences in an automatic way and the data are continuously transferred into the computer (so, no memory limitation)
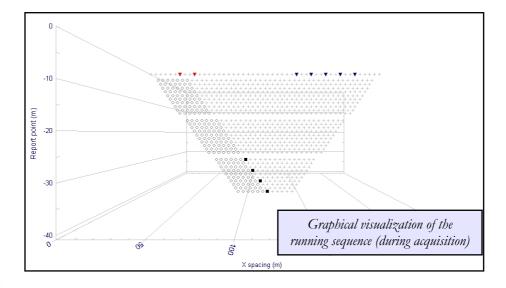
Minimum recommended PC configuration:
- Windows® XP
- 1 GHZ Microprocessor
- RAM memory: greater than 1 Gb
- 1280 x 1024 resolution screen

The real time communication is done by a serial link RS-232 cable or by a USB link.

The main functions of the **COMSYS Pro** software are the following ones:
- Use any type of sequence (2D – 3D – surface/borehole)
- Modes available:
    - Standard measurement
    - SP (Spontaneous Polarization) measurement
    - High speed (150 ms injection time) measurement
- Measurement and storage of the grounding resistance values
- Real time data (resistivity - chargeability,…) visualization
- Continuously data storage during acquisition into the computer
- Display of the estimated time remaining of the current sequence
- Graphical visualization of the current measuring quadripole
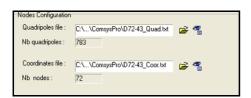- Creation of a script for automatic sequence running (resistivity monitoring)

Graphical visualization of the running sequence (during acquisition)

Comsys Pro Software

The set-up is defined in the following areas of the "Configuration" window:

Definition of the sequence of measurement

Introduction of a "Quadripoles" file and a "Coordinates" file.

These files are "txt" files ; they can be created manually (by *Excel* for example) or automatically (by the ELECTRE Pro software).

Setup of the unit

Definition of the configuration of the unit (number of channels, timing parameters, voltage requested,…).

Once the set-up has been defined, the acquisition can be run ; data (electrodes position, results of the measurements) will be displayed in real time in the "Acquisition" window.

Acquisition window

The **COMSYS Pro** software also allows to prepare a configuration (definition of the sequence and SYSCAL Pro set-up), and to program the start of the measurement thanks to the "Script" function.
Several sequences can thus be pre-programmed and run at a specific date/hour and with the possibility to define a running step (resistivity monitoring).

During the measurement, data are continuously stored into the computer, in a file which can be visualized and processed by PROSYS II software (data managing software of *IRIS Instruments*).
In such a file, for each measuring quadripole, the following parameters are stored:
- Electrodes position in X,Y, Z
- Grounding resistance (optional)
- Injected current / Received voltage / Quality factor (standard deviation)
- Self potential (Sp) / Resistivity / Chargeability (if Rho & IP mode)