

IRIS INSTRUMENTS

Comsys Pro software

PC remote control software for SYSCAL Switch units

The **COMSYS Pro** software is a program allowing to control a SYSCAL Pro Switch / Syscal Jr/R1+ (2 Channels) 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)

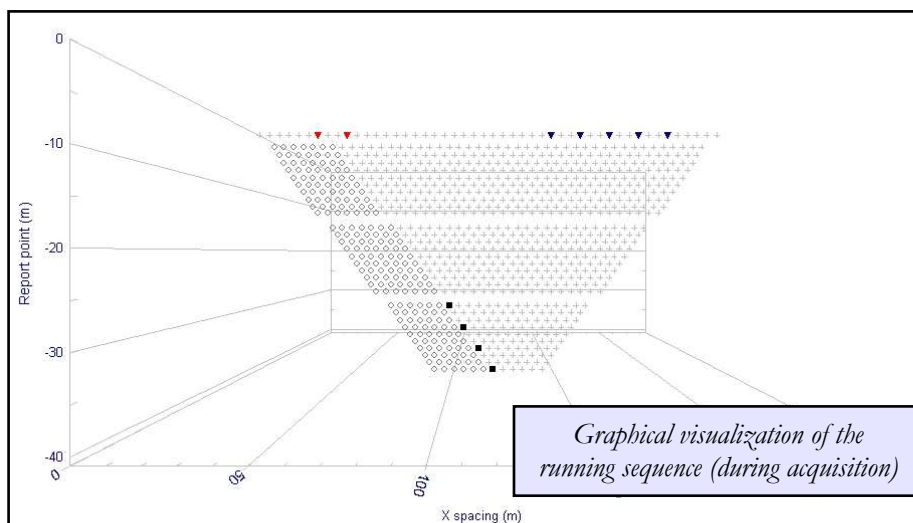
Minimum recommended PC configuration:

- 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.

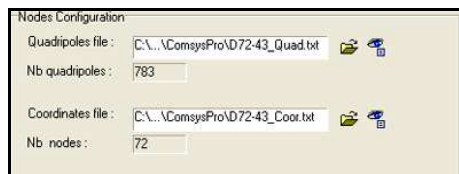
The main functions of the **COMSYS Pro** software are the following ones:

- 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)



Comsys Pro Software

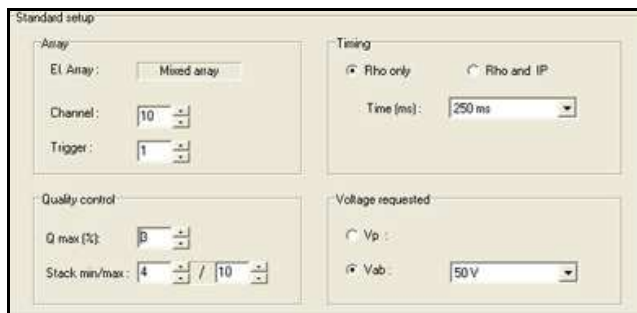
The set-up is defined in the following areas of the "Configuration" window:



Definition of the sequence of measurement

Introduction of a "Quadrupoles" 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.

Node	X (m)	Y (m)	Z (m)	Standard In (mA)	Quadrupole: 65 / 74 / 944
Ca	3	2.00	0.00	0.00	12.662
Cb	4	3.00	0.00	0.00	00:34:00
P1	5	4.00	0.00	0.00	
P2	6	5.00	0.00	0.00	
P3	7	6.00	0.00	0.00	
P4	8	7.00	0.00	0.00	
P5	9	8.00	0.00	0.00	
P6	10	9.00	0.00	0.00	
P7	11	10.00	0.00	0.00	
P8	12	11.00	0.00	0.00	
P9	13	12.00	0.00	0.00	
P10	14	13.00	0.00	0.00	
P11	15	14.00	0.00	0.00	

Ch	Vp (mV)	Rho (Ohm.m)	M (mV/V)	Sp (mV)	Q
Ch 1	-3238.98	4821.97	0.000	143.4	0.1
Ch 2	-341.35	-2032.72	0.000	-229.3	0.2
Ch 3	-217.29	3234.82	0.000	-21.0	0.2
Ch 4	-30.16	898.02	0.000	20.5	0.2
Ch 5	-36.48	1900.86	0.000	-28.8	0.2
Ch 6	-23.62	1969.35	0.000	-23.9	0.2
Ch 7	-12.78	1598.13	0.000	15.2	0.2
Ch 8	-8.33	1487.46	0.000	117.1	0.2
Ch 9	-4.85	1192.45	0.000	23.4	0.2
Ch 10	-3.13	1025.62	0.000	13.9	0.2

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 quadrupole, 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)

Specifications subject to change without notice BR_COM_GB_V1

