

Comsys Pro Software

The **COMSYS Pro** software is a program that allows a user to control a new generation Syscal Junior, Syscal R1 Plus or SYSCAL Pro-Switch resistivity-meter in multi-electrode mode, from a PC.

This software is especially dedicated for monitoring applications as a running step and can be defined to run some sequences automatically. There are no memory limitations to this software as the data is continuously transferred into the computer.

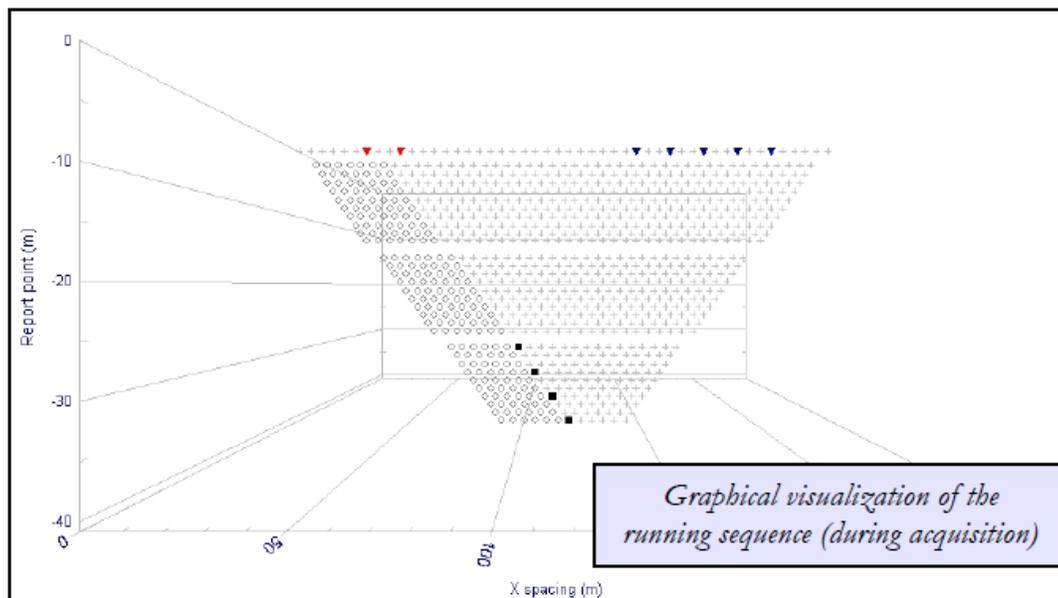
Minimum recommended PC configuration:

- 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.

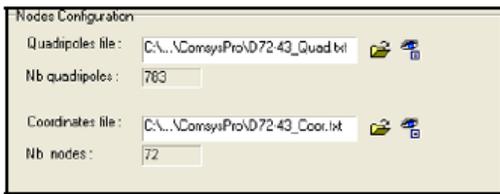
The main functions of the **COMSYS Pro** software are the following ones:

- 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)



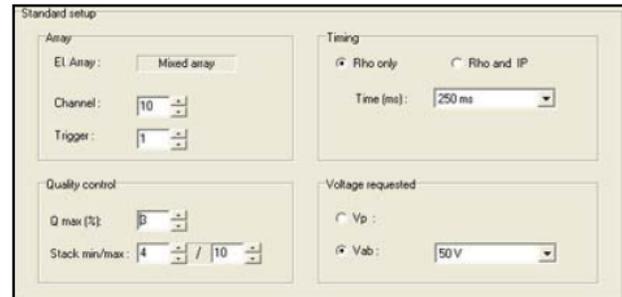
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The set-up is defined in the following areas of the "Configuration" window:



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.

Node	X (m)	Y (m)	Z (m)
Cx	3	2.00	0.00
Cy	4	3.00	0.00
F1	5	4.00	0.00
F2	6	5.00	0.00
F3	7	6.00	0.00
F4	8	7.00	0.00
F5	9	8.00	0.00
F6	10	9.00	0.00
F7	11	10.00	0.00
F8	12	11.00	0.00
F9	13	12.00	0.00
F10	14	13.00	0.00
F11	15	14.00	0.00

Standard	Quadripole				
Is (nA): 12.662	65 .. 74 / 944				
	Estimated time remaining: 00:34:00				
Ch	Vp (mV)	Rho (Ohm)	H (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 the user to prepare a configuration (definition of the sequence and Syscal Junior, Syscal R1 Plus or 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, 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. 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)