Stretching the limits of electrochemical testing

CorrWare, ZPlot and MultiStat

Software for electrochemical measurement and analysis

CorrWare, ZPlot and MultiStat software packages provide the most comprehensive range of control, measurement and analysis facilities for electrochemical and materials research.

The software makes it simple to set up and control experiments, acquire data and display results in the required format. There is no complex programming involved, leaving the researcher to concentrate totally on analyzing the results.

CorrWare for DC analysis
Corrware, with its companion data display and analysis program CorrView, is able to run a wide range of DC electrochemical tests using Solartron single channel 128x series potentiostats. It is the ideal tool for corrosion analysis, battery / fuel cell development and general electrochemistry.

CorrWare DC electrochemical experiments include:

- Static and dynamic polarization
- Open circuit vs time
- Potentiostatic and potentiodynamic
- Cyclic voltammetry
- Galvanostatic and galvanodynamic
- Potential and current square waves
- Potential stair-step
- Potential scan and hold
- Electrochemical (E&I) noise
- Galvanic square wave
- Galvanic cycle (battery test)
- Linear and anodic polarization scans

CorrView provides the most comprehensive range of analysis functions available for DC electrochemical data, including trend overlays, Tafel and line fitting techniques, data integration etc. Data can easily be exported into other Windows applications for additional analysis and report generation.

ZPlot for impedance analysis
ZPlot, with its companion data display and analysis program ZView, is simply the most flexible and powerful impedance software available today.

ZPlot, when operated together with CorrWare, is able to control Solartron single channel 12xx series potentiostats and frequency response analyzers to run a variety of electrochemical impedance tests in potentiostatic and galvanostatic modes. Applications include corrosion studies, coatings investigations and battery research.

ZPlot stand alone is able to control the Solartron 1260 impedance analyzer for advanced materials research into polymers, ceramics and composites.

ZPlot experimental methods include:

- Sweep frequency, AC amplitude, DC polarization
- Impedance vs time

Standard techniques

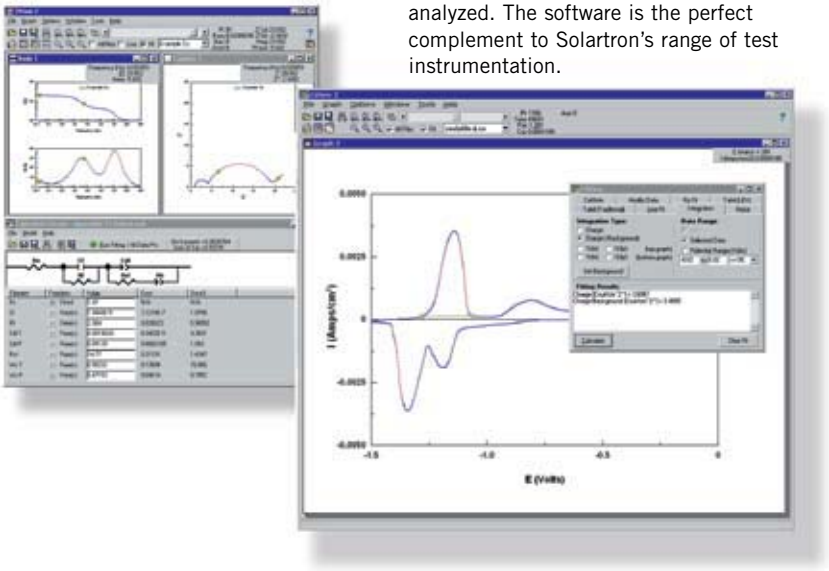
- Electrochemical impedance
- AC voltammetry
- Mott-Schottky analysis
- Dielectric characterization
- Harmonic characterization

ZView provides all facilities required for the detailed analysis of impedance data including a very powerful and easy to use equivalent circuit fitting routine that allows interpretation of the raw impedance data in terms of cell parameters such as diffusion rate, series resistance, polarization resistance etc. Bode, complex plane and 3D plot formats are available and data can easily be exported to other Windows packages for further analysis.

Multistat is a combined impedance / DC measurement package designed exclusively for use with the Solartron CellTest® System comprising of multi-channel 1470E potentiostats and 145x series modular frequency response analyzers (FRAs). Multistat uses a data organization program called **Data Explorer** to efficiently store and retrieve multi-channel data and the integrated CorrView and ZView programs provide comprehensive data analysis facilities.

Multistat's intuitive design builds upon the capabilities of CorrWare and ZPlot and those users with experience of these packages will adapt to the MultiStat software with ease.

Flexibilty
With all of these packages, data may be viewed in real time while previously collected data is analyzed. The software is the perfect complement to Solartron's range of test instrumentation.

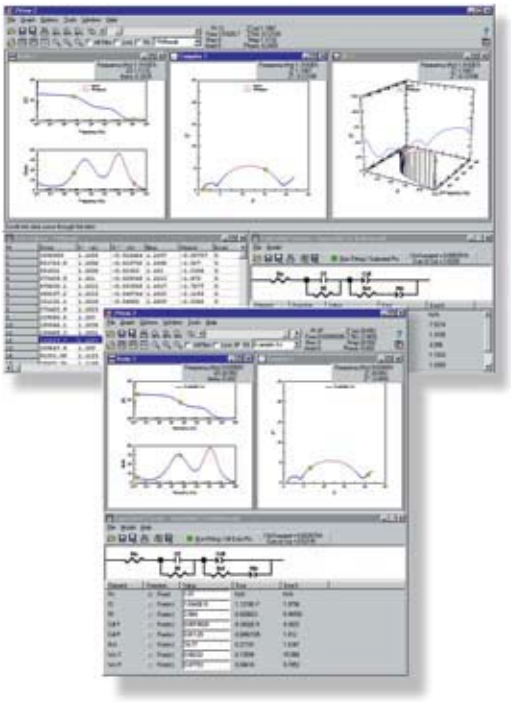


CorrWare, ZPlot and MultiStat Software Specification

PC requirements	Pentium PC, 1.0 GHz, 256 MB RAM, USB ports (2) for software key, CD drive
PC operating system	Windows XP Professional or Windows 2000
PC Interface (all programs)	IEEE-488.2 interface (National Instruments) AT-GPIB, or PCMCIA-GPIB, PC2.2A)
Interface (for Multistat only)	Ethernet 10 / 100BaseT or GPIB (as above)

Instrumentation / Software Compatibility

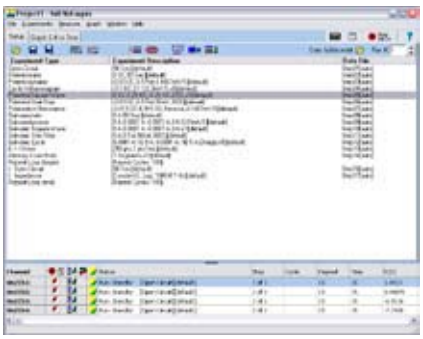
ZPlot	FRA	Solartron 1260, 1255A / B, 1253, 1252, 1250A / B, 1254, 1280A / B
	Materials Interface	1294, Keithley 428
CorrWare	Pstat / Gstat	Solartron 1287, 1286, 1285, 1284, 1280A / B PAR 283, 273 / 273A, 263 / 263A, Versastat, Versastat 2, 173 w / 276 plug-in Amel 5000
	Power booster	Solartron 1290
	Multiplexer	1281A / B
Multistat	FRA	Solartron 1455 / 1451 plus 12xx series
	Pstat / Gstat	Solartron 1470A, 1480A, 1470E
	Power booster	Solartron 1290



Ordering Information

USB125505S	ZPlot only
USB128702S	CorrWare only
USB125587S	ZPlot / CorrWare
USB129603S	ZView for analysis only
USB1470N0ES	Multistat for N 1470E
USB1470N0EC	Multistat for N 1470E /1470A /1480A and N 12xx series FRAs
USB1470N0EF	Multistat for N 1470E and N sets of eight 145x series FRAs

where N = 1, 2, 3 or 4



Run multiple experiments on individual channels using MultiStat Project Editor.

Solartron Analytical is a world leader in instrumentation and software for the characterization of materials and electrochemical systems using precision electrical measurement techniques.

These techniques find particular use in the fields of corrosion, battery and fuel cell research, dielectric analysis and electrochemistry. The product portfolio includes industry standard frequency response analyzers, potentiostats, electrochemical software (Zplot and CorrWare) and battery test equipment.

Solartron Analytical's Quality System is approved to BS EN ISO 9001:2008

solartron analytical

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