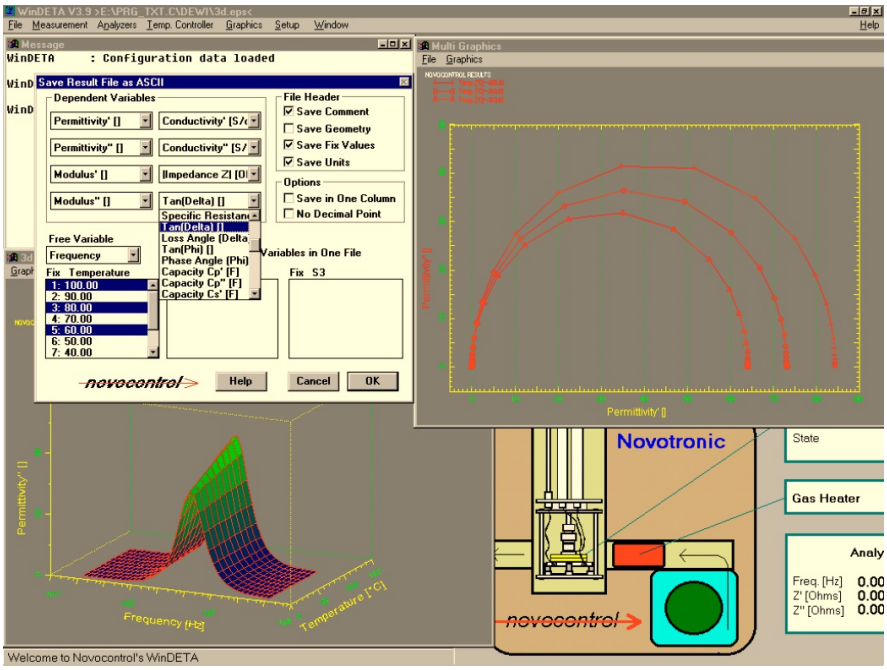

Novocontrol Technologies presents WinDETA

- Powerful control and evaluation software for dielectric/impedance spectroscopy and electrochemical impedance spectroscopy (EIS)
- Rapid access to dielectric and impedance data of polymers, glasses, ceramics, semiconductors, ion conductors, liquid crystals batteries, fuels cells materials under corrosion, biomedical and biological systems
- Computer control of up to 12 different impedance analyzers and 4 temperature control systems
- Data acquisition via IEEE488 interface
- fully automatic device and measurement control
- sophisticated data visualisation (2D/3D)
- extensive context-sensitive help function

WinDETA

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WinDETA Impedance Analysis Software

WinDETA performs fully automatic test sequences, capturing impedance informa-tion as a function of a variety of free parameters, e.g., frequency, ac voltage, dc voltage, time, into data files.
WinDETA is the laboratory standard control and evaluation software for broadband dielectric and impedance spectroscopy. Its uniform user interface supports the most important impedance analyzers and temperature controllers.
The Microsoft Windows® environment permits a maximum throughput analysis of data, flexibility and high quality graphical data presentation in two or three dimensions. WinDETA transforms your computer into a powerful system with graphical user interface, allowing even unexperienced users to set-up and start fully automatic measurements in minutes.

Supported analyzers and temperature control systems

Supported Impedance Measurement Systems

- Novocontrol Alpha-A mainframe FRA (in combination with all its test interfaces)
- Novocontrol Alpha dielectric/impedance analyzer
- Novocontrol Beta dielectric/impedance analyzer
- Agilent E4991A
- Agilent 4980
- HP 4284/4285
- HP 4192, HP 4191, HP 4291
- HP 4194, HP 4294
- Novocontrol Broadband Dielectric Converter (BDC) in combination with SI 1255, SI 1260 analyzers or SR 810, 820, 850 lock-in amplifiers

Supported Temperature Control Systems

- Novocontrol Quatro Cryosystem
- Novocontrol Novocool Cryosystem
- Novocontrol Novotherm heating system
- Novocontrol Novotherm-HT high-temperature system
- Eurotherm series 2000 and 3000 temperature controllers (RS232 and EIBisync support required)

Features

- **laboratory standard** control and evaluation multitasking software for dielectric/impedance spectroscopy and electrochemical impedance spectroscopy (EIS).
- **uniform user interface** for **various impedance analyzers** and **temperature controllers** nearly independent of hardware
- **flexible experiment set-up**: control of frequency, temperature, dc-bias and time in any **multi dimensional arrangement**
- from the measured impedance, more than **30 different electric quantities** are evaluated, including permittivity, conductivity, inductance, and many more
- **graphical online display** of measured data, temperature curve and system status
- **integrated plot software** to display multiple data sets in a single graph, **3D diagrams**, **Bode** and **Cole-Cole** plots
- **automatic calibration** of hardware devices and sample cells
- exports/imports data in several flexible user-defined ASCII formats
- optional **curve fitting software WinFIT** for equivalent circuit modelling, **data transformations** like **WLF**, **Havriliak-Negami**, and time domain conversion

Applications

Dielectric/impedance spectroscopy and EIS are valuable characterization tools for ceramics, glasses, polymers, liquid crystals, semiconductors, ionic conductors, batteries, fuel cells, corrosion analysis, biomedical and biological systems.
Various key aspects of materials properties such as molecular relaxations, conductivity, phase separation, phase transitions, activation energy, glass temperature, rate of blending, purity, ageing, curing and many others are easily investigated.

System requirements

- Microsoft Windows XP, Vista, Windows 7, 8, 8.1, 10
- Novocontrol GPIB PCI interface BDS 1500 or National Instruments GPIB interface