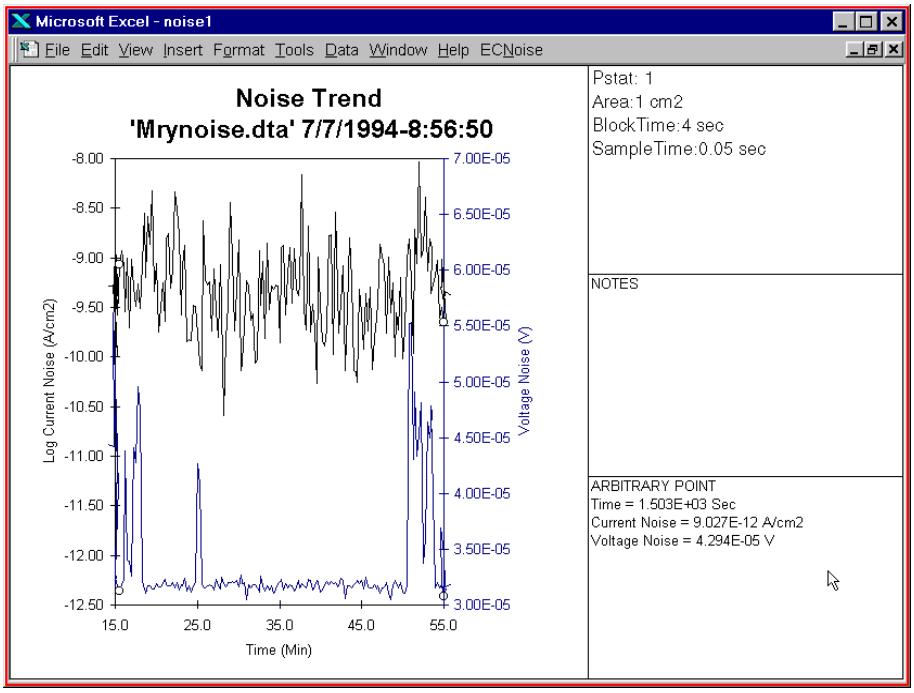
GAMRY INSTRUMENTS

Redefining Electrochemical Measurement

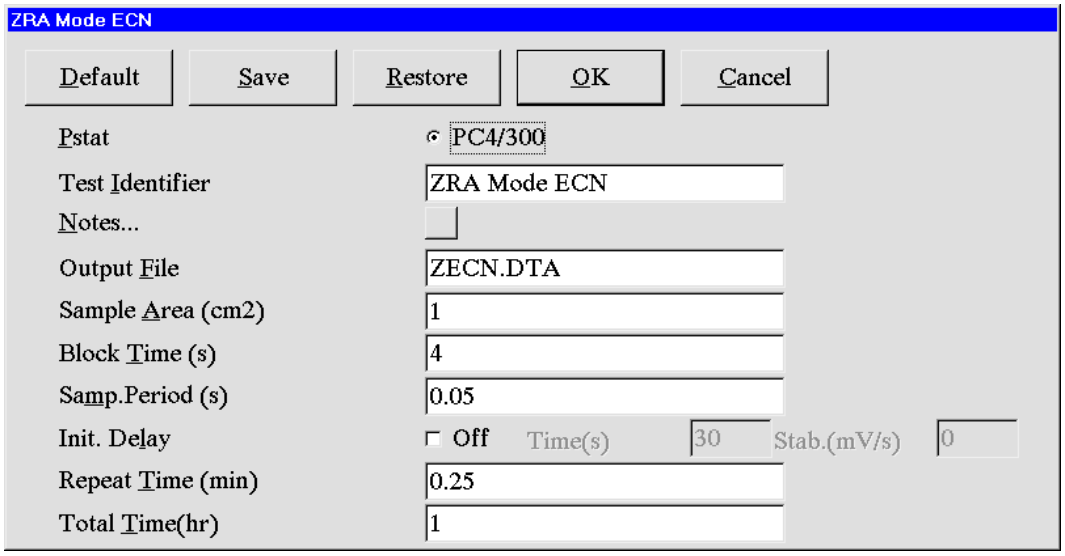
Electrochemical Noise Software

The Electrochemical Noise Software is an inexpensive entry into Electrochemical Noise testing. The Electrochemical Noise Software includes experimental scripts and analysis macros for both potentiostatic and ZRA mode noise experiments.

The Electrochemical Noise Software controls your Gamry Potentiostat to make the electrochemical noise measurement. The Electrochemical Noise Software can be combined with the ECM8™ Multiplexer for tests on multiple cells. The results are analyzed in Microsoft™ Excel™ augmented with our specialized menus. The Electrochemical Noise Software is simultaneously powerful, flexible and very cost effective.



The Electrochemical Noise Software incorporates two basic types of noise tests. In the first type, a potentiostat is used to hold a metal specimen at a constant potential. Periodically, short blocks of current data are recorded. The block length, the data acquisition rate within the block, and the time between blocks, are all user selectable (see the Setup screen below). After the block is acquired, the data is "detrended" by subtracting a best-fit linear current versus time curve from the measured currents. The RMS noise of the detrended current is then calculated and reported as the current noise of this data block. The noise data from a sequence of blocks is used to build up a current noise versus time curve.



In the second type of test, the potentiostat is used in ZRA mode. Two identical metal samples are the test specimens. The system holds these specimens at the same potential and measures the coupling current between them. At the same time, the potential of the specimens is measured versus a reference electrode. The RMS noise level of both the detrended current and detrended potential are calculated. The data curve from a ZRA mode test is current noise and potential noise versus time.

Both single cell and multiple cell scripts are included in the Electrochemical Noise Software. Excel macros for both single curve analysis and multiple curve comparisons are also included.

Electronics Specifications

The electronic specifications for a Electrochemical Noise Software package depend on the system's potentiostat. Consult Gamry Instruments' Potentiostat brochure for detailed specifications.

Systems Information

The Electrochemical Noise Software requires a Gamry PC4 Potentiostat to conduct experiments. Additional Potentiostats are supported by the Electrochemical Noise Software package. Microsoft Windows 95/98 and higher and Excel 97 and higher are required for operation of the Electrochemical Noise Software.

Electrochemical Noise Software packages are subject to a limited 1-year factory service warranty (Gamry Instruments software and components only). Computers and computer accessories are subject to the computer vendor's warranty.

Gamry Instruments can also supply complete systems including the above items and system software installed in a desktop, portable or rackmount computer. Custom computer configurations, software, training and installation are available by special order. Contact us for further details on these systems.
Gamry Instruments cannot guarantee compatibility with all ISA/EISA bus computers.

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