GAMRY
I N S T R U M E N T S

Redefining Electrochemical Measurement

VFP600™ Virtual Front Panel

The VFP600 Virtual Front Panel is a software–based front panel for Gamry Potentiostats. With the VFP600, you can easily and inexpensively use a Gamry Potentiostat to perform simple electrochemical experiments.

The VFP600 Virtual Front Panel Software converts the research-grade Gamry Potentiostat into a manual potentiostat with a front panel. It offers potentiostatic, galvanostatic, and ZRA modes. The VFP600 is ideal for long-term potentiostatic or galvanostatic polarization tests or charge-discharge experiments with batteries. You can perform cyclic voltammetry at a wide range of scan rates. You can even do ZRA-based noise experiments. Data can be plotted in a linear or a log format, so simple corrosion experiments are possible. You can easily apply a square wave to investigate pulse plating applications.

In addition, the VFP600 has three exceptional characteristics:

- Since the VFP600 is a SoftPanel, it changes with the experiment being performed, so it is much more versatile than a hardware front panel.
- Like a manual instrument, you can make changes to the experiment while in progress.
- Unlike a manual instrument, the VFP600 can save the data to a file.

The VFP600 is shown below. The layout of the panel is discussed on the following page.
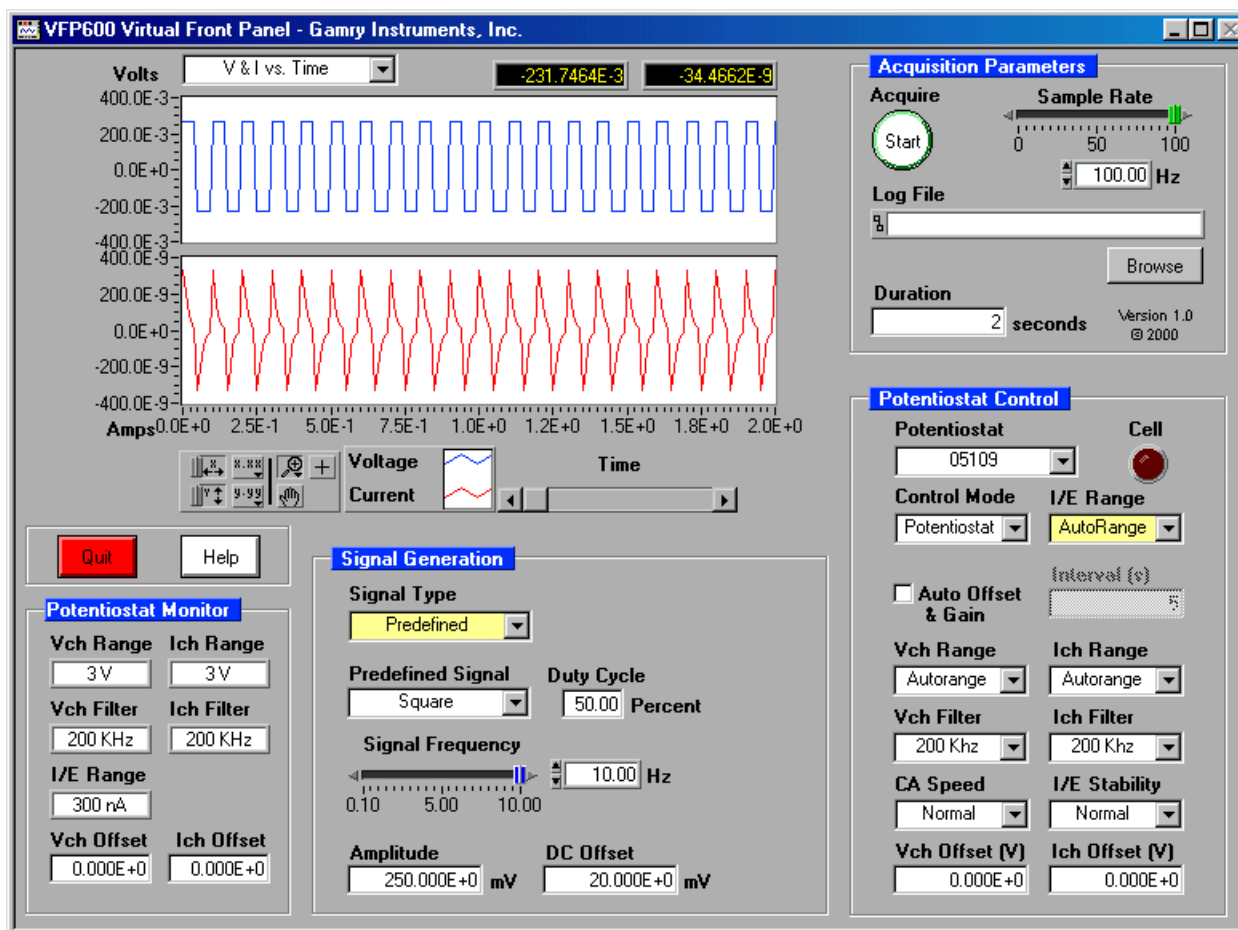
- Set potentiostat, galvanostat, or ZRA mode
- Turn cell on and off
- Set current range or set to autorange
- Automatic or manual control of offsets and gains
- Automatic or manual control of ranges and filters for both potential and current measurement
- Speed and stability controls for potentiostat mode

Potentiostat Monitor

- A read-only display for the hardware settings for the instrument

- Used to monitor hardware settings when autorange control is enabled

Signal Generation

Specifies the type of waveform that is applied to the cell:
- **Single Point**: Applies a fixed potential or current
- **Predefined**: Applies a ramp, triangle, square wave, sine, or cosine signal to the cell. Parameters are dependent upon signal, e.g., scan rate can be specified with a ramp, duty cycle can be specified with a square wave, etc

- **From File**: The signal is determined by the values in an ASCII text file, allowing virtually any type of waveform to be applied. The rate at which the signal is applied is controlled by the Acquisition Frequency

Acquisition Parameters

- Starts and stops the experiment
- Controls data acquisition timing (maximum 1 kHz)
- Set duration of the experiment

- Specify the file where data is saved
- If no file is specified, data is discarded

Data Presentation

- Select data format: voltage vs. time, current vs. time, voltage & current vs. time, voltage vs. current
- Digital display of most recently acquired data.

- Plot format: Linear X & Y, Linear X/Log Y, Log X/Linear Y, Log X & Y
- Chart controls for data observation

The VFP600 provides the ease-of-use and flexibility that you need for the most simple electrochemical measurements. Gamry can configure the VFP600 in a desktop, portable, or rackmount computer.

Systems Information

The performance specifications for the VFP600 depend on the system's Potentiostat. Consult Gamry Instruments' Potentiostat brochure for detailed specifications. Microsoft Windows 95/98 is required for operation of the VFP600. VFP600 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.

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