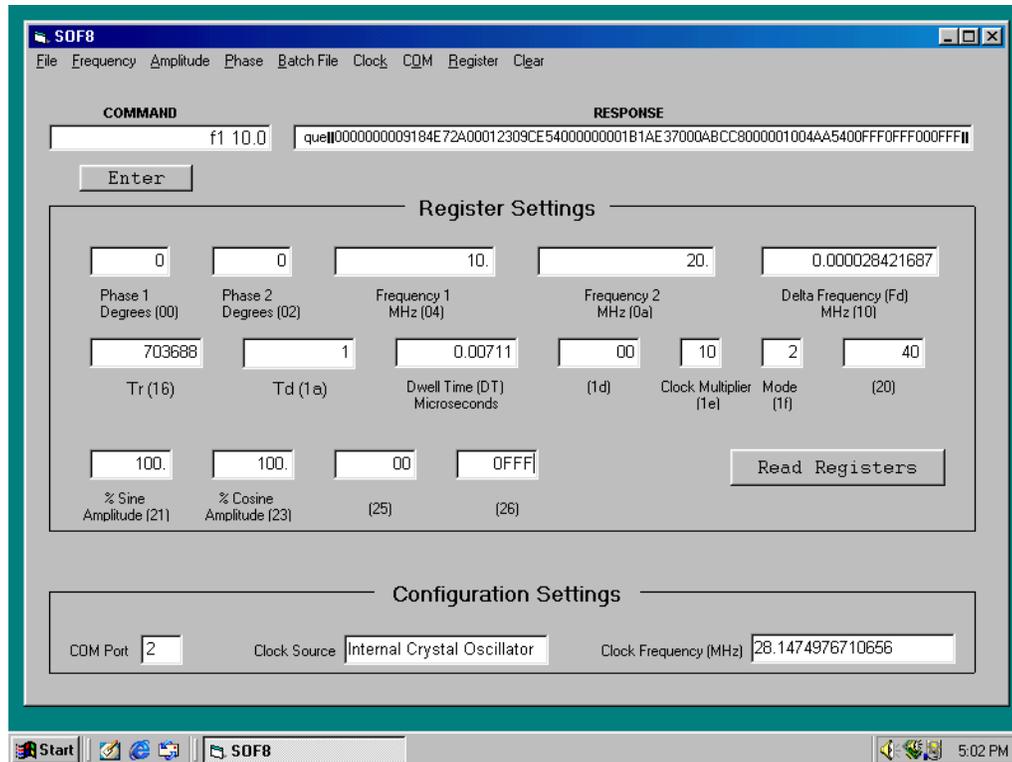


# NOVATECH INSTRUMENTS, INC.

## SOF8 Signal Generator Control Software



With the SOF8 signal generator control program it is convenient and easy to setup and operate NOVATECH INSTRUMENT signal generators from any computer running Microsoft Windows. NOVATECH's signal generators can be programmed over a USB or RS232 serial interface using ASCII commands. The SOF8 program enables the user to select from drop down menus and then generates the appropriate commands and sends them to the signal generator. The SOF8 program also offers a batch file capability that enables the user to enter, save and run a sequence of commands and dwell times, allowing automation of repetitive operations.

The user can view the current settings of the signal generator by selecting the SOF8 read register button. NOVATECH signal generators return a sequence of HEX numbers in response to a query command. Selecting the read register button initiates this query command, causing the SOF8 program to parse and decode the HEX response and display the current signal generator settings in separate text fields in the appropriate engineering units.

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# SOF8 Control Software

## Menus and Display

### FILE MENU

Select copy signal generator settings to the the clipboard, save signal generator settings to signal generator EEPROM or exit.

### FREQUENCY MENU (MODE SELECTION)

Select:

SINGLE TONE (Mode 0), enter output frequency.

FSK (Mode 1), enter F1 and F2. External trigger toggles between frequencies F1 and F2.

TRIANGLE (Mode 2), enter F1, F2 and Repeat Time. Sweeps from frequency F1 to F2 to F1 and repeats continuously.

SAWTOOTH (Mode 3), enter F1,  $F_{\text{finish}}$  and Repeat Time. Sweeps from frequency F1 to  $F_{\text{finish}}$  then steps to F1 and repeats continuously.

BPSK (Mode 4), enter output frequency, phase P1 and phase P2. External trigger toggles between phase P1 and phase P2.

### AMPLITUDE MENU

Select sine or cosine and enter the 12-Bit amplitude value.

### PHASE MENU

Enter the phase. Enables setting multiple signal sources to different phase values when operating them from the same frequency reference.

### BATCH FILE MENU

Selecting batch file displays an input form where the user can create, save, run, copy or paste a batch file. This file can contain a sequence of ASCII commands, dwell times and comments.

### CLOCK MENU

Select internal or external. If external, enter external clock frequency.

### COM MENU

Enter the number of the COM port connected to the signal generator.

### REGISTER MENU

Select hex or engineering units for the displayed values of the signal generator settings.

### CLEAR MENU

Select clear display, reset signal generator to last saved settings or reset signal generator to factory default settings.

### COMMAND FIELD

Enter a command and depress enter to send the command to the signal generator.

### RESPONSE FIELD

Displays responses received from the signal generator. These are either echoed responses or the hex value returned after a query command.

### REGISTER SETTINGS FIELDS

Depressing the read register button causes a query command to be sent to the signal generator and displays all current settings of the signal generator in the register settings fields.

### COMPATIBLE SIGNAL SOURCES

Models 2904A, 2908A, DDS8m

### SYSTEM REQUIREMENTS

SOF8 is written in Visual Basic 6.0. Executable and source code is provided on CD. Windows 95, 98, ME, NT, 2000 Professional or 2000 Server required