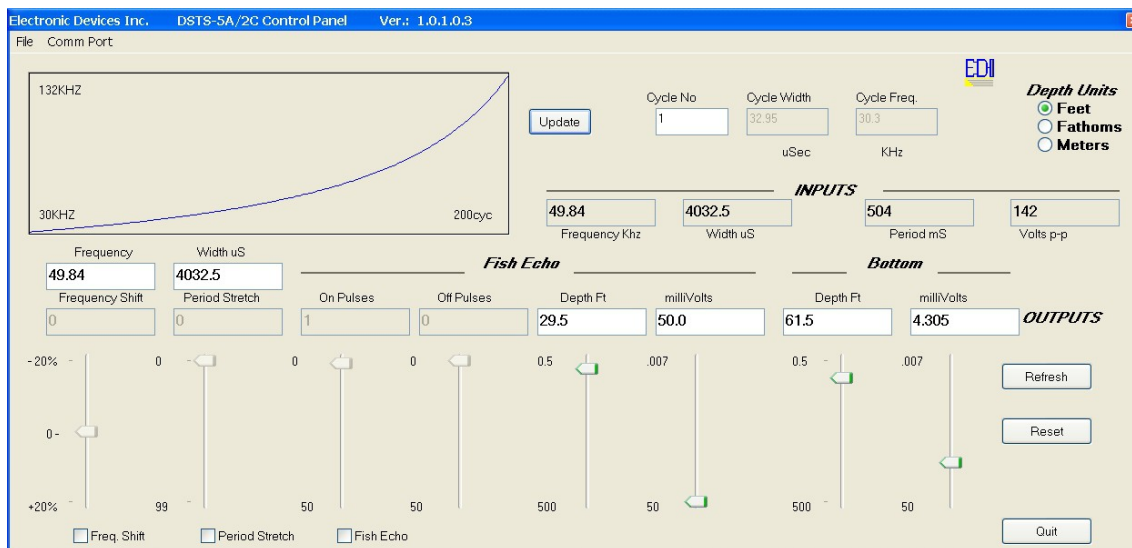# EDI ELECTRONIC DEVICES INC.

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Doc 10813

DSTS-5A/2C Chirp Sonar Test Set Control Panel Ver 1.0.1.03

This manual covers the operation of the DSTS-5A Chirp Test Set control panel application for Windows. The Control Panel is designed for use with the DSTS-5A/2C chirp depth sounder test set and provides a quick and easy way to set most of the functions the DSTS_5A /2C can provide. Bottom and fish depth can be set as can the echo amplitudes for each. Reply frequency offset and width are also adjustable. When quitting the application, the Control Panel saves all settings parameters to a .ini file so the next time it is run it will load the previous settings.

Hardware requirements are minimal, the main one is a free serial port or USB to RS232 adapter for the DSTS-5A/2C to connect to.

Installing the Software
The Control Panel is installed by copying the "DSTS-5A2C_V0_1_0_3 .EXE" file to your hard drive. You can also run it directly from the supplied CD. The program is stand alone and does not write to the registry. If you want to remove the program, just erase it.

Connecting the DSTS-5A
The DSTS-5A connects to the serial port on the computer the application is running on. Any standard DB9 serial cable will work. After connecting the DSTS-5A to the computer's serial port, apply power to the DSTS-5A and run the program.

Com Port Choice
The first time the program is run, the "COMM PORT SELECT" window will pop up. A list of available com ports is displayed. Choose the appropriate com port and click on "OK" to run the application.

Control Panel Layout
The top row of readouts show the characteristics of the incoming pulse from the depth sounder. In the illustration the depth sounder is transmitting a chirp pulse with an average frequency of 49.84 KHz. The pulse is 4032.6 uS in length and has a period of 504 mS. The amplitude is 142 volts.

The bottom row readouts display what is being sent back to the depth sounder. In this case, the *Freq Shift*, *Period Stretch* and *Fish Echo* are off. The *Bottom* echo is set to 61.5 feet with a reply level of 4.3.5mV.

Sliders
Slider type controls are provided to set the various parameters such as depth, amplitude, etc. Some sliders such as the *Freq Shift*, *Period Stretch* and *Fish Echo* will not work until the check box is clicked to activate the function. The sliders may be changed using the mouse, up/down arrows, or by typing the value into the box above the slider.

Control buttons
Three buttons on the right side are *Refresh*, *Reset*, and *Quit*. *Refresh* directs the Control Panel to re-read the data from the DSTS-5A. *Reset* sets all parameters to the defaults, depth equals 30 feet and the reply echo is set to the maximum 50mV rms. The *Quit* button saves the current settings and exits. Clicking the red X will exit without saving your settings.

Graph
A graph of the input frequency vs time is shown on the upper left portion of the panel. Clicking on the *Update* button will display the current pulse data. The frequency of each cycle is plotted. The vertical axis is frequency and the horizontal axis is the cycle number in the pulse. You can also get the period and frequency of a cycle by typing the cycle number in the *Cycle No* box to the right of the *Update* button.

File Menu
The File menu at the upper left can be used to store the current Control Panel settings to a file. This is so different setups can be saved for different depth sounders.

Comm Port Menu
The Comm Port menu displays a list of all comm ports on the computer. It is used to select a different comm port. Multiple instances of the Control Panel can be run as long as there is a comm port available for each instance.