PFG Lab Software Manual

For version 0.1.x.x

Contents

PFG Lab Software Manual 1
Requirements: 1
Introduction 1
How to Generate a Wave Sequence File 1
How to Run a Wave Sequence File 2
How to Pause & Resume a Sequence 4
Pulsed Technologies Support: 4

Requirements:

- Computer running Microsoft Windows operating system (Windows 95 / 98 / Me / NT / 2000 / XP or Vista). We recommend computers running Microsoft Windows XP or Vista;
- The software can run on Linux operating system using a Win32 emulator, like wine.

Introduction

This part does not cover the installation and configuration of the software, but the operation of the software and the unit. Please refer to Quick Setup Guide for that.

The PFG Lab software has 3 important components that you need to work with: the PFG Lab main window, the Function Generator window and the Wave Sequence window.

The main window offers has 4 buttons: Start PFG (which launches the Function Generator window), Generate Wave Sequence (utility that helps you to generate wave sequences files, that are then loaded by Wave Sequence window), View Generated Files (shortcut to where the wave sequence files are stored on your disk) and Resources (here you can find useful resources like CAFL frequency list).

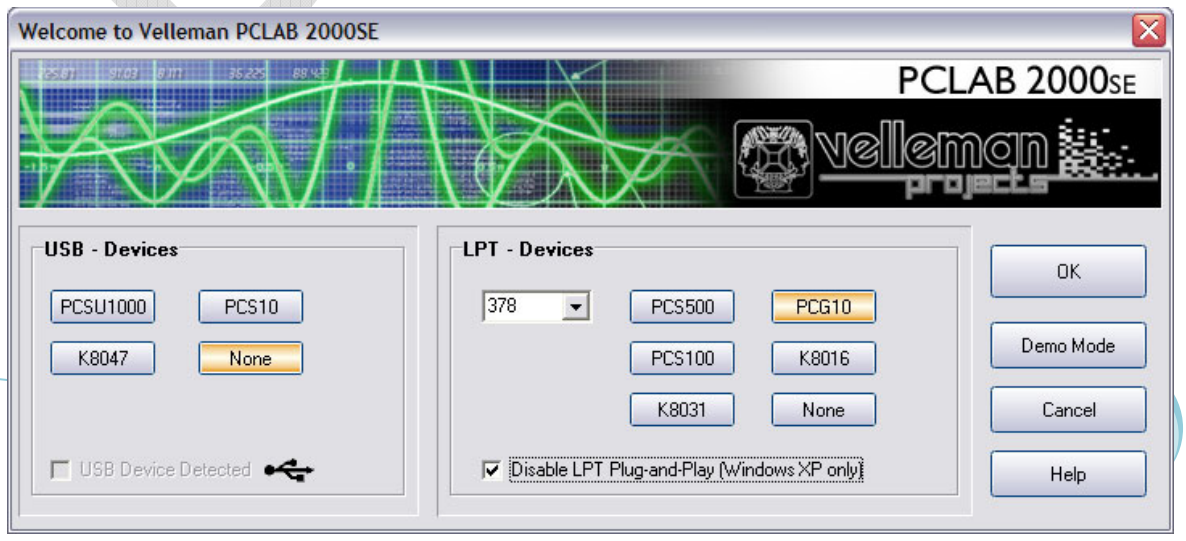
How to Generate a Wave Sequence File

1. From the PFG Lab main window click on the Generate Wave Sequence button. The main window will expand revealing text inputs and options.

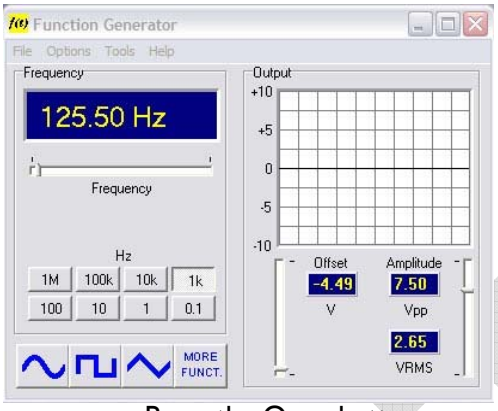
2. In the left area of the window type in your frequencies. You can copy frequencies from the CAFL list (you can find the PDF file of CAFL list when you click on Resources button).
3. In the right side, set the name that the wave sequence file you want. Choose a distinctive one. If the same name already exists it will be overwritten. Replace the default 'my sequence name' with whatever you choose.
4. Select the function (wave form) you want to use. For normal PFG operation in contact mode, you can leave Function 2 – Square wave. When running a P3 (Precision Pulsed Plasma) system (P3 mode) and you have higher frequencies (more than 10 000 Hz) you may consider setting to Triangle (Function 3) or using a more appropriate wave form from the library, like Function 4 – ramp_dn.lib.
5. Set the Offset (relevant ONLY when running a P3 system – P3 mode). Default is set to 1. The offset can take values between -5 to 5. You can have values like 1.5 or -0.5.
6. Set the Voltage. Default is set to 10. It takes values between -10 and 10. This value represents the current strength (output), where 10 is the maximum power output. You should lower this value if you do not feel comfortable with the current output, however it is recommended as highest value as possible (remember, maximum is 10). NOTE: In P3 mode leave this value set to 10.
7. Set the Time for each frequency to run. This value is expressed in seconds. The default value, 90, is the minimum time we recommend to run for each frequency.
8. Finally, press the Generate Sequence button. When pressed, it will generate a file that you can load it into the Wave Sequence window later. If there is already a file with the same name, it will overwrite the file. If you want to review the file you have generated, press the 'View Generated Files' button and will reveal all the files you have stored on your disk. The files are automatically saved in the data folder inside the PFG Lab installation folder. Default installation folder is C:\Program Files\Pulsed Technologies\PFG Lab\. You can manually edit the files by opening them into a text editor like Microsoft Notepad.

How to Run a Wave Sequence File

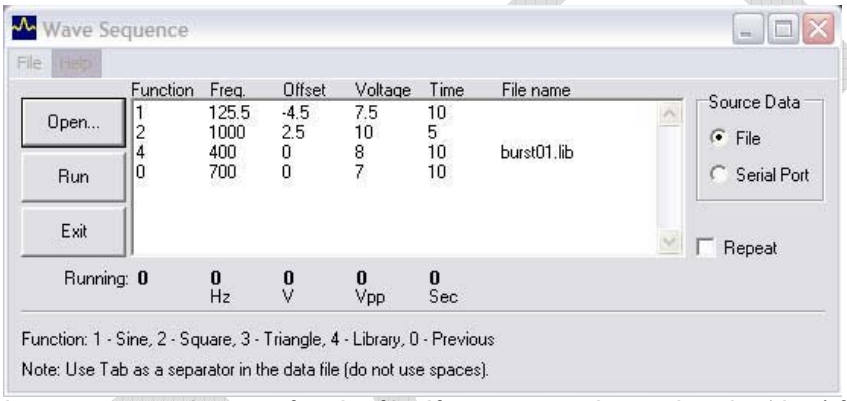
1. From PFG Lab main window press 'Start PFG' button.
2. A configuration panel will appear. You don't need to make any modifications, unless this is the first time you are seeing this configuration window. Click OK button.



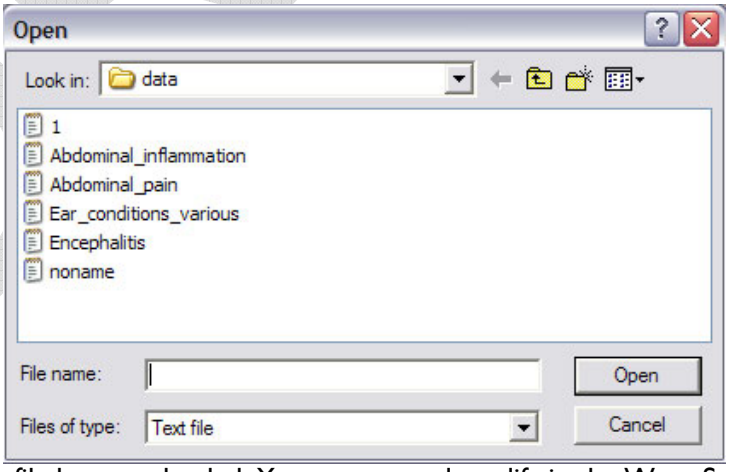
3. The Function Generator window appears. From Tools menu click on Wave Sequence option.



4. The Wave Sequence window appears. Press the Open button…



5. A new window appears to browse for the file. If you are not located in the 'data' folder (Look in:) locate the 'data' folder and enter in it. Locate the file which you want to load and doube-click on it or highlight it and the click Open button.



6. The Wave Sequence file has now loaded. You can see and modify in the Wave Sequence window the frequencies and their properties (function, offset, voltage, time) if you need to.
7. Press Run button to start running the sequence.

8. Optionally you can check the Repeat checkbox located at the right of the window to repeat the sequence infinitely.
9. To stop the sequence, press the Exit button. It will not close the window. To close the window use the X button at the top right of the window or from File menu click Exit option.
10. To Pause and Resume a sequence please refer to How to Pause & Resume a Sequence.

How to Pause & Resume a Sequence

The current version of the software does not have a Pause/Resume button. However, you can do the following.

1. Note the frequency that is currently running.
2. Once the sequence is running press the Exit button.
3. Remove all the rows above the last frequency running by manually editing the sequence inside the Wave Sequence window. DO NOT leave any empty row, or it will not work.

This way you can start a sequence from a frequency you whish.

Pulsed Technologies Support:

Email: support@pulsedtech.com

Phone: 214-453-0095 (8AM-4PM Monday through Friday)

Contact Information: Paul Dorneanu (paul@pulsedtech.com)

Web: www.pulsedtech.com / www.pulsedtechnologies.com