

Creating an wave sequence

Wave Sequence

This option is used to run a sequence of waveforms under a timer control.

- Affected parameters are function (Sine, Square, Triangle or Library waveform), frequency, offset and amplitude for each step.
- The sequence may contain any number of steps.
- The command strings may be entered manually, loaded from a text file or received through the serial port.

The data file is a normal text file. It can be edited using standard text editors or the editor of this option. At the startup there is an example file for editing in the edit window .

- When entering the data use Tab as a separator (do not use spaces).
- Use Save as option of the File menu to save the file.
- Click Open button to open a file.
- Click Run button to execute the sequence file.
- Select Repeat check box to repeat the sequence over and over again.
- Click Exit to break the execution.

The file contains on each line following data:

- Function [1, 2, 3, 4 or 0]
- Frequency [Hz]
- Offset [V]
- Output voltage [Vpp]
- Time [s]
- File name (*) (Only if function number 4 is selected)

Note: If the Time parameter is set to 0 then the generator outputs the waveform until you click the Next Step button or press Enter or the Space Bar.

Function selection

1 = Sine

2 = Square

3 = Triangle

4 = Library waveform

0 = No change (The previous selected waveform is used.)

Example of the file

```
1 12000 -1.5 7.5 30
2 24000 0 5.5 60
4 400 5 10 20 burst01.lib
0 500 4 9 15
```

Line 1: Generator outputs sine wave at 12000Hz, -1.5V offset and 7.5Vpp output voltage for 30 seconds.

Line 2: Generator outputs square wave at 24000Hz, 0V offset and 5.5Vpp output voltage for 60 seconds.

Line 3: Generator outputs library waveform "burst01.lib" at 400Hz, 5V offset and 10Vpp output voltage for 20 seconds.

Line 4: Generator outputs library waveform "burst01.lib" at 500Hz, 4V offset and 9Vpp output voltage for 15 seconds.

Receiving the command strings through the serial port

In this mode you can remote control the operation of the function generator.

- Select Serial Port radio button in the Source Data box.
- Set the communications parameters such as COM port, baud rate, data bits, stop bits and parity.
- The software is ready to receive the command strings from the serial port.
- If the Time parameter is set to 0 then the generator outputs the selected waveform until the next instruction is received from the serial port.

Note: Make sure that the library waveform files are located in the Lib subfolder of the PcLab2000LT program folder (normally C:\ProgramFiles\Velleman\PcLab2000LT\lib).

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