

Calibration Pulser Control GUI

- On the desktop, open LabVIEW 8.0. The program is called **Cal_Pulser_Ctrl_Current.vi**.
 - File→Open→C:\Calibration Pulser Ctrl\
 - The panel that opens contains buttons and a file path. Their functionalities will each be explained briefly below.
 - **‘File to Read’**
 - Specify the file path of the pulser configuration file.
 - It is **NOT** necessary to load this file.
 - The default is C:\Calibration Pulser Ctrl\Input Files\init_pulser.txt

The configuration file is as follows:

```
st0          set type (0,1)
sp02        set period (1-100)
xf          attenuator off
pf          picket fence off
hf          hundred picket off
ps0100     picket pulses (1-9999)
pv000050   picket value (0-4095) →12 values total
:
sa0000     set amplitude (0-4095)
```

- **‘VISA resource name’**
 - Specify which serial port to communicate with.
- **‘Set Type’**
 - Toggle between board 0 and board 1.
- **‘Set Picket Values’**
 - Choose 12 picket values for the hardware picket.
- **‘Set Amplitude’**
 - Set the pulse amplitude between 0-4095.
- **‘Set Period’**
 - Set the period between 1-100, corresponding to:


```
1 = 1ms
2 = 2ms
:
```
- **‘Set Picket Pulses’**
 - Specify the number of pulses sent per picket value (1-9999).
 - Hardware default is 100.
- **‘Picket On/Off’**
 - Toggle the picket on/off.
 - Loops over the specified picket values.

- **‘100 Picket On/Off’**
 - Toggle the 100 picket on/off.
 - Counts down by 100s from the specified pulse amplitude.
- **‘X1/X10’**
 - Attenuates the output pulse by 1 or 10.
- **‘Init Pulser/Software Picket’**
 - Loads commands specified in the file C:\Calibration Pulser Ctrl\Input Files\init_pulser.txt.
 - The user can also specify 12 picket values to edit and load from this file (i.e. the *software picket*).
- **‘STOP’**
 - Turns off any pickets that are running, closes the session to the serial port, and stops the VI (virtual instrument).

Screen shot of VI:

