Powercurves Measurement Tool

ROFIN-SINAR LASER

THE MARK OF EXCELLENCE

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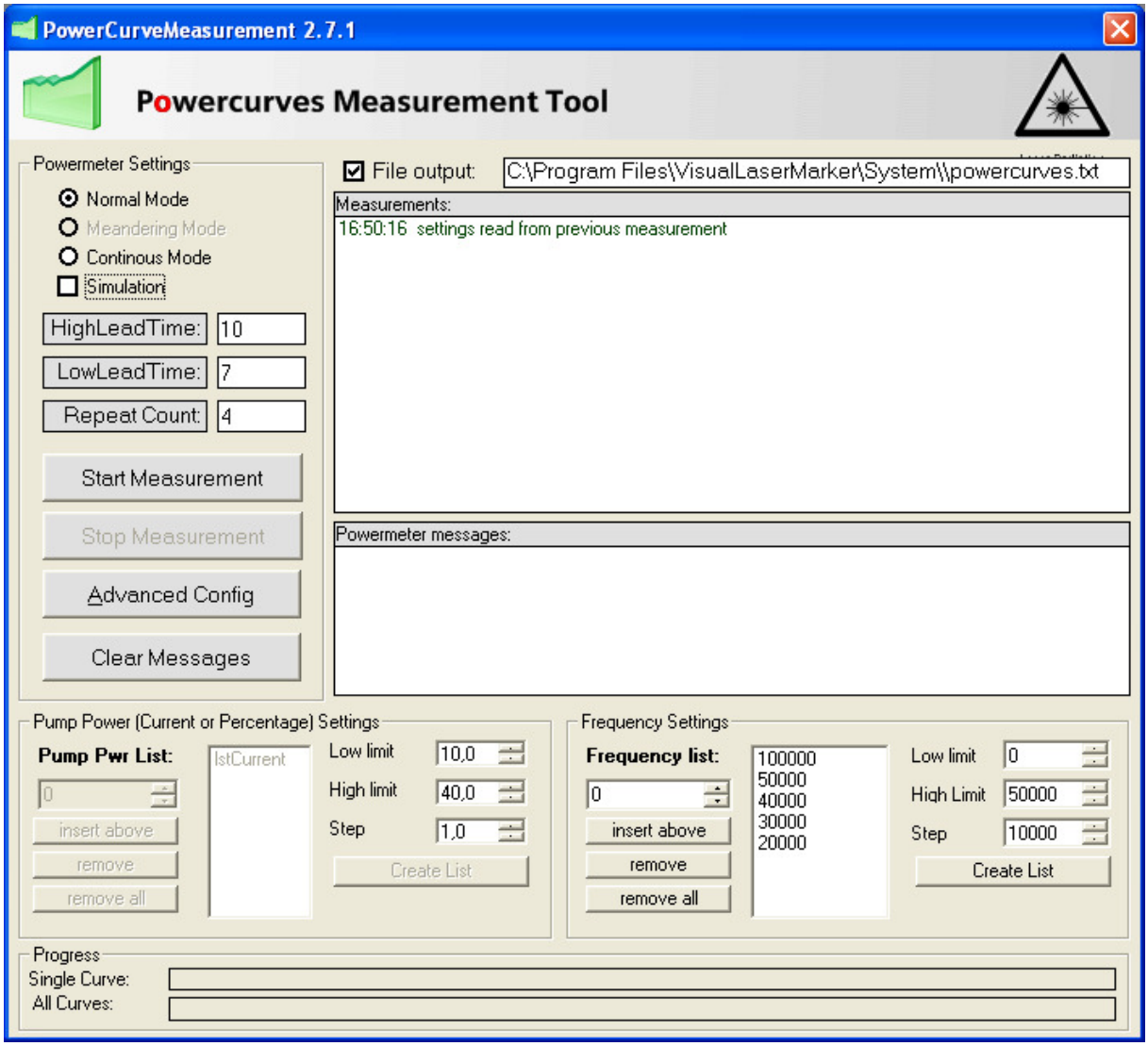
Powercurves Measurement Tool

This software enables the user to measure the power of the laser in a certain range of currents and frequencies. After the measurements are complete the results are stored in a table and saved to a file.

User Interface:



Power meter settings:

Normal Mode:

Operate the software in this mode if you are about to create a file that describes the power characteristic of the laser (“powercurves.txt”) over a range of pump power values (i.e. diode current) and frequencys. Necessary for the VLM target power feature.

Continous Mode:

Operate the software in this mode if you are about to create a file that shows the continous power of the laser at a certain working point. The parameters for a continous power measurement are set on the ‘Advanced Config” dialog. While the continous measurement is running the laser power will be measured each second and the result will be written to a text file.

Low and High Lead Time:

The low lead time is the time the laser beam is fired on the power sensor before the measurements take place, to warm up the sensor. The high lead time serves the same purpose, but is used after a current change.

Repeat Count:

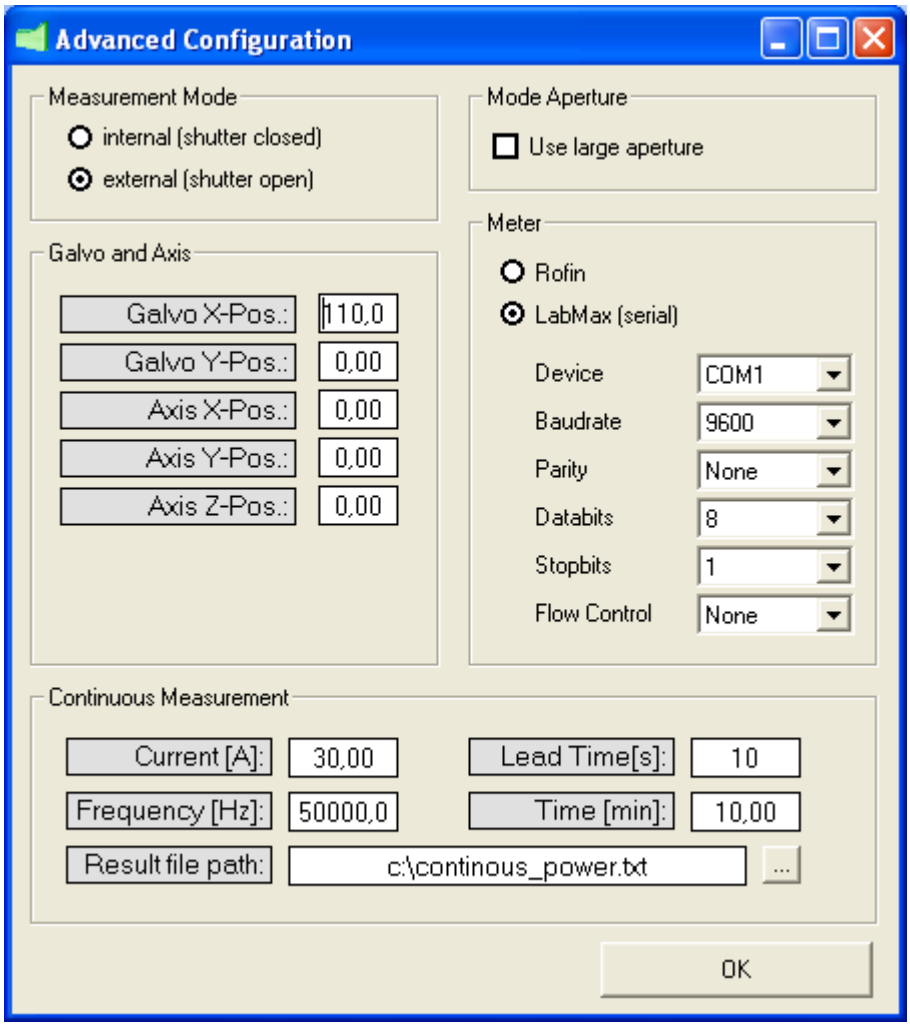
The number of measurements taken after the lead time has elapsed.

Start and Stop Measurement:

After the range of currents and frequencies have been set as well as the configuration of the powermeter, the measurement range can be started or stopped with this buttons.

Advanced Config:

Opens a new dialog for the advanced settings of the powermeter. All the shutter, aperture, axis and galvohead settings necessary for the power measurement are placed here. This dialog also contains the settings for a continous power measurement.



Simulation:

Only for developer testing purposes.

File output:

The suggested name and path of the result file.

Current Range:

The user can define the current range used for the power measurements.

Frequency Range:

The user can define the frequency range used for the measurements.

1 Attention

The range is always taken from the frequency list and not from low limit, high limit and step values. These values are there to create a list of increasing frequency values in the list, by pressing the [**create list**] button. The list can of course also be edited by using the the [**insert above**], [**remove**] and [**remove all**] buttons.

Single Curve All Curves Progress Bars:

Single curve shows the progress of one power curve, all curves the progress of the complete measurement.

Measurements Window:

Each complete measurement will be displayed here as:
Timestamp Frequency Current Power

The small window below shows the messages of the software power meter. I.e. the result of each single measurement or error messages if an internal error.