CONEX-PSD

Two-Axis Position & Power Sensing device

Newport®
Controller GUI Manual
V2.0.x
# Table of Contents

1.0 Introduction ........................................................................................................ 1  
  1.1 Purpose ............................................................................................................. 1  
  1.2 Overview ........................................................................................................... 1  
  1.3 Controller State Diagram .................................................................................. 1  

2.0 Installation ........................................................................................................... 2  
  2.1 Install CONEX-PSD Graphical User Interface ...................................................... 2  
  2.2 Launch GUI ....................................................................................................... 2  

3.0 User Interface ..................................................................................................... 3  
  3.1 Configuration .................................................................................................... 3  
  3.2 Main .................................................................................................................. 5  
  3.3 Diagnostics ....................................................................................................... 7  
  3.4 About ................................................................................................................ 8  

Service Form ........................................................................................................... 9
1.0 Introduction

1.1 Purpose
The purpose of this document is to provide instructions on how to use the CONEX-PSD Controller graphical user interface (GUI).

1.2 Overview
The CONEX-PSD Controller GUI is a graphical user interface, that allows the user to interact with the CONEX-PSD controller.

1.3 Controller State Diagram
The CONEX-PSD controller is defined by the following state diagram.

**Controller’s LED display:**
CONFIGURATION: **SLOW BLINK RED.**
READY: **SOLID GREEN.**
2.0 Installation

2.1 Install CONEX-PSD Graphical User Interface
Following are steps to install CONEX-PSD GUI:

- For 32 bit, Select and launch “CONEX-PSD Utility Installer Win32.exe”. For 64 bit, Select and launch “CONEX-PSD Utility Installer Win64.exe”.
- A window opens up showing Install welcome page.
- Click on “Next”.
- A window opens up allowing destination folder selection. By default it is showing C:.
- Click on “Next”.
- Ready to install window opens up. Click “Install”.
- Then installation starts, wait for completion. Click on “Finish” to finalize the installation.

32 bit installer will be installed “Newport.CONEXPSD.CommandInterface.dll” in GAC_32 folder and 64 bit installer will be installed the dll in GAC_64 folder.

NOTE
LabVIEW user can add reference of command interface dll from GAC during VI creation.

2.2 Launch GUI
From Windows “START” menu, select “All Programs\Newport\Motion Control\CONEX-PSD\CONEX-PSD Utility”.
3.0 User Interface

3.1 Configuration

The Configuration tab allows the user to view and / or change information related to the logging configuration and the instrument settings. Read only values are displayed for the log file name and the log file path. The logging level may be changed to any of the settings in the drop-down list on the right hand side. Trace is the most detailed of the settings and when this setting is selected the controller GUI logs everything. Critical Error is the least detailed of the settings and when this setting is selected the controller GUI will only log errors that are defined to be critical.

The polling interval defines the number of milliseconds between each time the controller GUI polls the CONEX-PSD for the latest information. The user may change the polling interval by entering a value.

The Save button allows to save the current settings to the configuration file.
Configurable settings

The following table describes all the settings that can be change by the user.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Values</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Logging</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Logging level. Trace is the most detailed of the settings and when this setting is selected the controller GUI logs everything. Critical Error is the least detailed of the settings and when this setting is selected the controller GUI will only log errors that are defined to be critical.</td>
<td>Trace Detail Equipment Message Info Warning Error Critical Error</td>
<td>Trace</td>
</tr>
<tr>
<td><strong>Instrument</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PollingInterval</td>
<td>The polling interval defines the number of milliseconds (delay) between each time the controller GUI polls the instrument for the latest information.</td>
<td>An Integer</td>
<td>200</td>
</tr>
<tr>
<td><strong>Diagnostics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delay</td>
<td>The delay defines the number of milliseconds between each sent command from a text file.</td>
<td>An Integer</td>
<td>1000</td>
</tr>
<tr>
<td><strong>Models</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>InstrumentInfo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CommunicationChannel</td>
<td>The communication channel</td>
<td>USB</td>
<td>USB</td>
</tr>
<tr>
<td><strong>Charts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BufferDepth</td>
<td>BufferDepth defines the maximum number of points displayed in the chart.</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>YMax</td>
<td>YMax defined the maximum Y limits of the position charts. This parameter can be used to perform a zoom.</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>YMin</td>
<td>YMin defined the minimum Y limits of the position charts. This parameter can be used to perform a zoom.</td>
<td></td>
<td>-5</td>
</tr>
</tbody>
</table>
3.2 Main

The Main tab displays the main controls in the controller GUI like a virtual front panel. It is updated each time the polling interval timer expires.

“Controller status led”
A single led shows the current controller state. When you move the mouse over the led, the controller state is displayed in an information balloon.

“Save button”
This button allows save the current buffer of points (X, Y and Laser power).
The result file is saved in the “data” folder from the current controller GUI directory.
The saved datas are: Date, Time, X position, Y position and Laser power.

“Clear button”
This button allows clear all charts.

“Stop button”
This button allows stopping the chart refreshing.
“Positions”
Two text boxes display the current positions X and Y.
A chart shows the X and Y positions in relation to the time.
A XY chart display the position (X, Y) of the optical beam.

NOTE
The chart limits can be modified from the “Configuration Tab”
The buffer depth can be modified from the “Configuration Tab”.

“Laser Power”
A text box displays the current laser power in percentage.
A chart shows the laser power in relation to the time.

NOTE
The buffer depth can be modified from the “Configuration Tab”.
3.3 Diagnostics

The Diagnostics tab allows the user to enter instrument commands and to view the history of commands sent and responses received. This list of commands and the syntax of each command can be found in the user’s manual for the instrument.

A file of commands can be sent line by line to the instrument with the “Send Command file” button.
3.4 About

The About tab allows to display information about the controller GUI and the connected instrument. It displays the controller GUI name, version, and copyright information.
Service Form

Name: ____________________________________________
Company: ________________________________________
Address: _________________________________________
Country: _________________________________________
P.O. Number: _____________________________________

Item(s) Being Returned: ______________________________
Model#: _________________________________________

Return authorization #: ______________________________
(Please obtain prior to return of item)

Date: _____________________________________________
Phone Number: ___________________________________
Fax Number: _______________________________________
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