User's Manual

For

Tunable Laser Application

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1. INTRODUCTION

1.1. Purpose

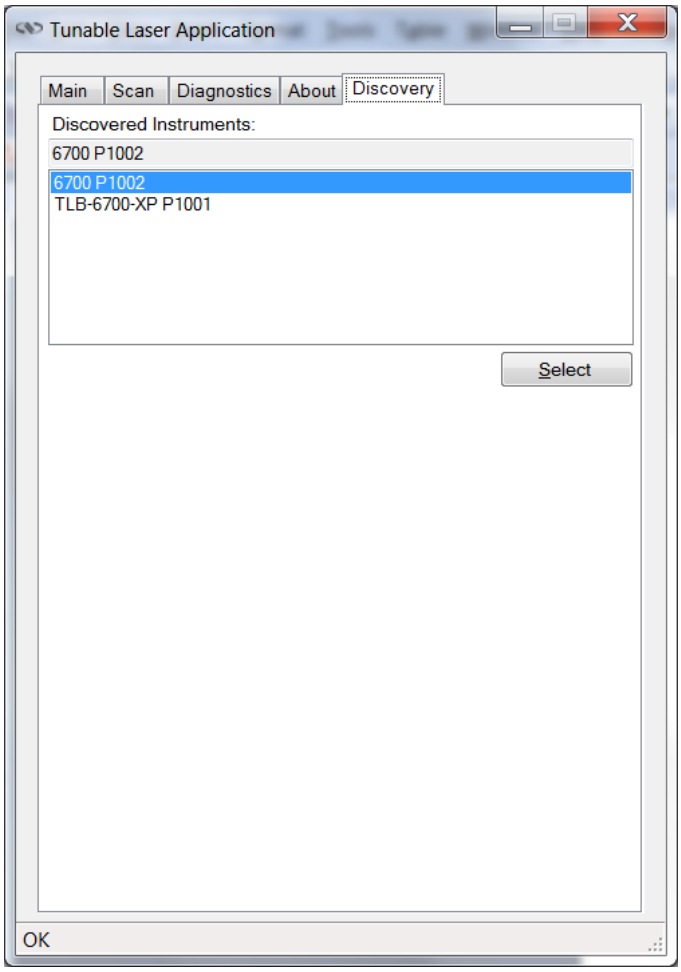
The purpose of this document is to provide instructions on how to use the Tunable Laser Application.

1.2. Overview

The Tunable Laser Application is a PC based software application that allows users to interact with the TLB-6700 controller. It runs as a standard Windows application and can be launched by double-clicking the shortcut icon on the PC desktop, or by selecting the application shortcut from the Newport folder of the Start menu, or by double-clicking the "TunableLaserApp.exe" file located in <INSTALL_DIR>\Bin folder. The default path for <INSTALL_DIR> is C:\Program Files\Newport.

1.3. Instrument Discovery

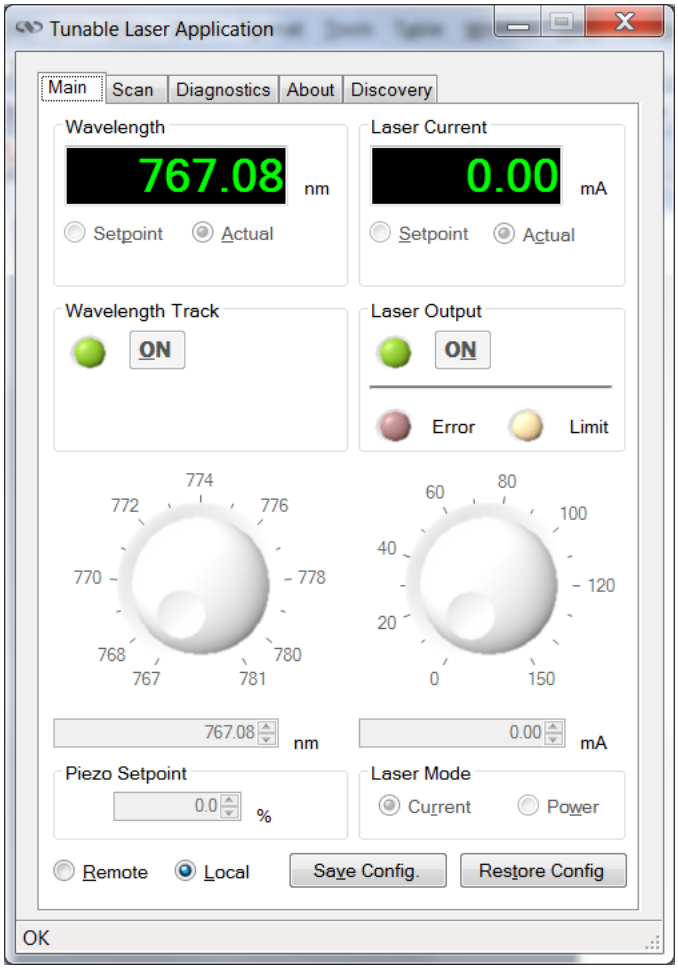
Turn the TLB-6700 Tunable Laser Controller ON, and connect the USB interface to the PC running the Tunable Laser Application. The software will discover the instrument automatically and display it on the Discovery tab.



2. THE USER INTERFACE

2.1. Main

The Main tab displays the main controls in the application. It is updated each time the polling interval timer expires. This timer is enabled when the Main tab is selected.



The controls on this tab simulate some of the main features of the controller. It has two green display readouts, one for wavelength and the other for output current. The Setpoint radio button allows the user to change the setpoint value with knob control before turning the output on. Once the setpoint is set, the output may be turned on and the actual wavelength/current value can be monitored. The Actual radio button allows the user to measure the actual wavelength/current level.

The Wavelength Track and Laser Output On buttons enable/disable wavelength tracking and allowing current flow to the laser head. The three LEDs (output, error, and limit) all reflect the current status as shown on the front panel of the instrument.

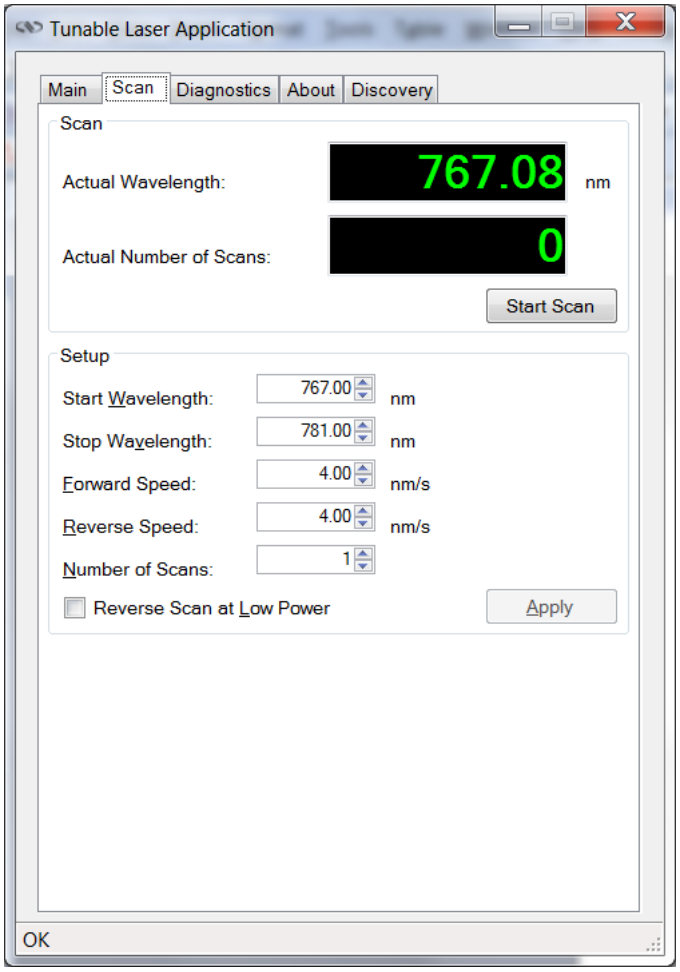
The Remote radio button allows users to control the instrument from a PC and disables some front panel functionality. The Local radio button places the instrument into local mode where the front panel of the instrument has full functionality.

The “nm” and “mA” text boxes and the knob controls are enabled when the corresponding Setpoint radio buttons are selected. If the Actual radio button is selected then the “nm” and “mA” text boxes and the knob controls are disabled. The “nm” and “mA” text boxes and the knob controls allow the user to set values for the wavelength and current setpoints.

Click on Save Config. button to save controller configuration to an XML file. Click on Restore button to restore the controller configuration from a previously saved XML file.

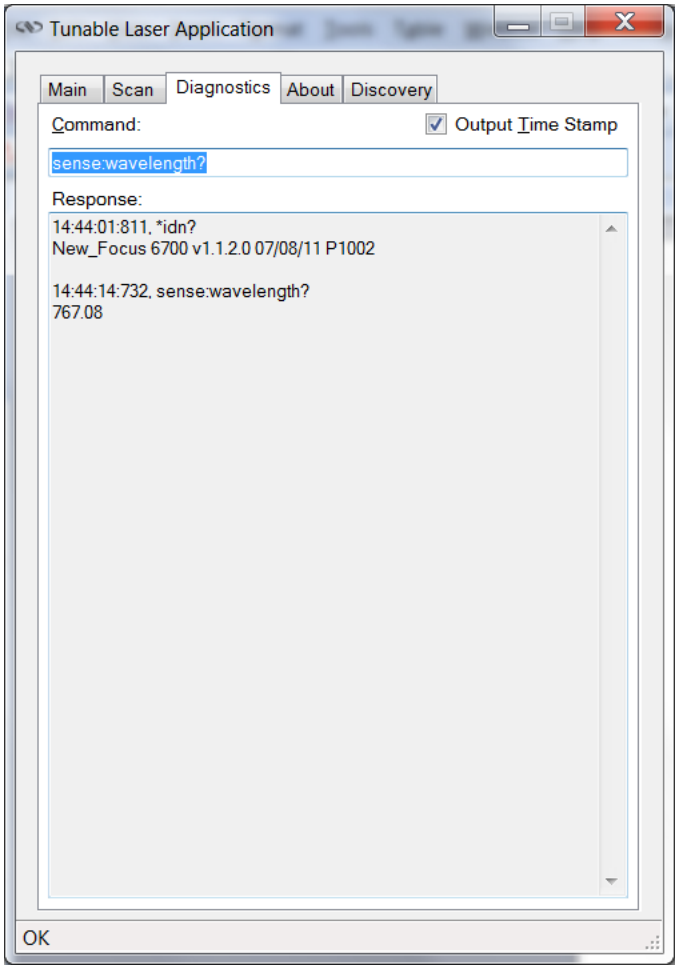
2.2. Scan

The Scan tab displays the controls related to wavelength scanning. The scan process can be started/stopped and all parameters related to this feature can be set from this tab.



2.3. Diagnostics

The Diagnostics tab allows the user to enter instrument commands and to view the history of commands sent and responses received. The user may also turn on / off the time stamp that is displayed in the response window. This list of commands and the syntax of each command can be found in the user's manual for the instrument.



2.4. About

The About tab displays information about the application, the instrument and the laser head connected to it.