LUMENCOR DLL: LabVIEW Library

LouAdmin
[COMPANY NAME] | [COMPANY ADDRESS]

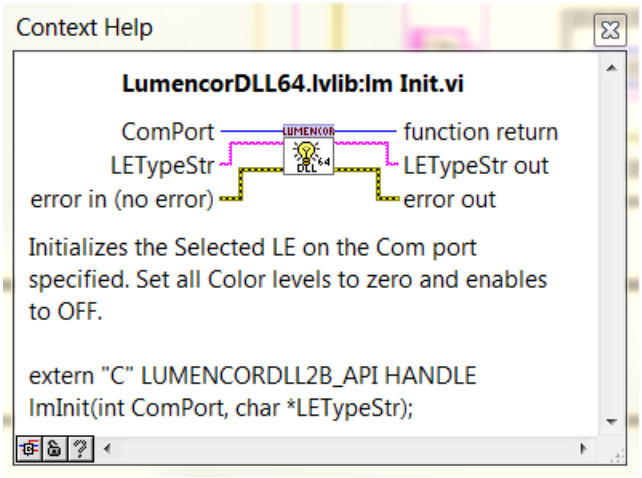
Introduction

The Lumencor DLL allows the customer to control the various Light engines from their own software. The Dll accepts English commands to set color enables On or OFF or to set color levels. The Dll also knows were colors are mapped to internal to the Light Engine and controls the appropriate channel for the specific light engine. The LabVIEW library is a wrapper for the DLL that exposes the various library calls so that they may easily be called from a LabVIEW program.

Library Contents:

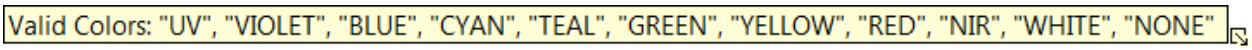
The Library contains 5 sub-Vis that provide access to the dll functions. These are as follows:

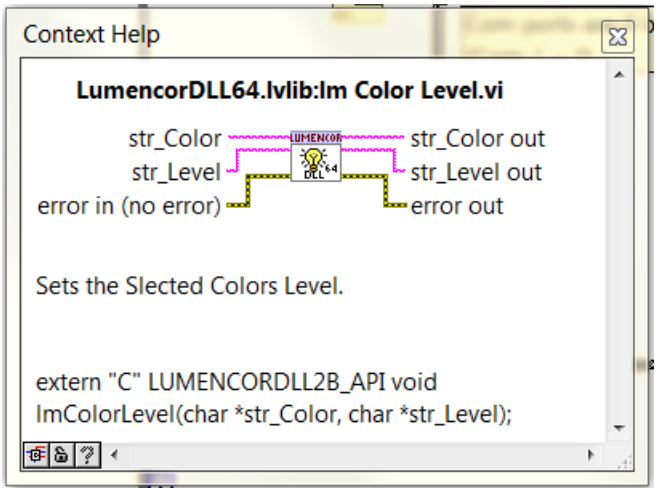
LM Init – This will open the specified Com port and initialize the Light engine. All colors will be set to zero level and enables Off. Com ports are passed as a number to the function and are zero based so Com-1 will be integer 0 and Com-2 = 1 etc.



LM Color Level

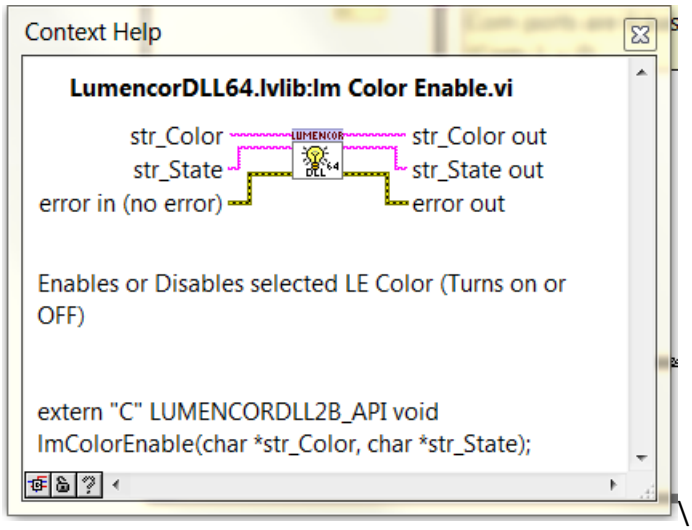
This function will Set the Level for the selected Color.





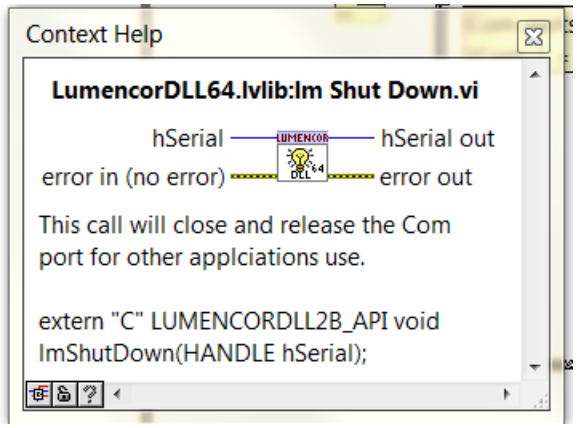
LM Color Enable

The Color Enable function will turn the selected color ON or OFF. The str_Color parameter is the Color you wish to change state of. Valid colors (shown earlier) are text strings in all upper case. The State parameter is a string (ON or OFF) also in upper case.



LM Shut Down

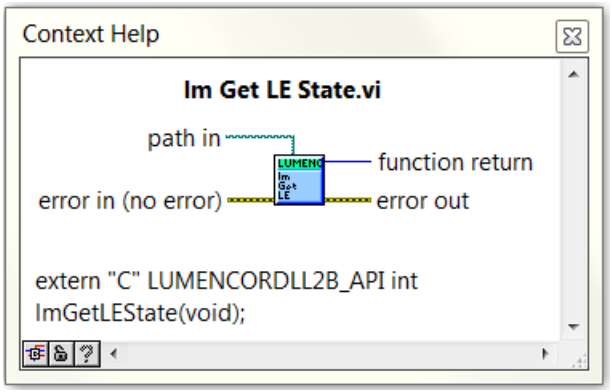
This function will close the Com port and release the resource for other applications use.



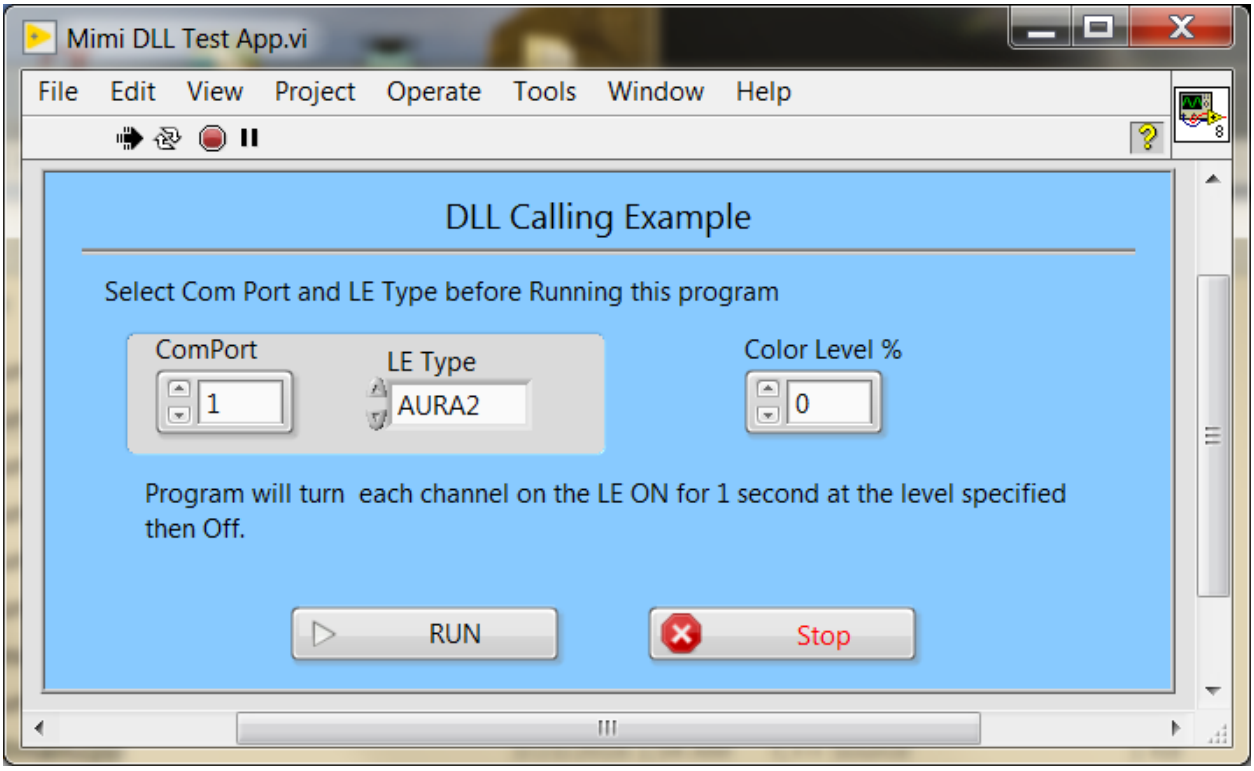
LM Get LE State

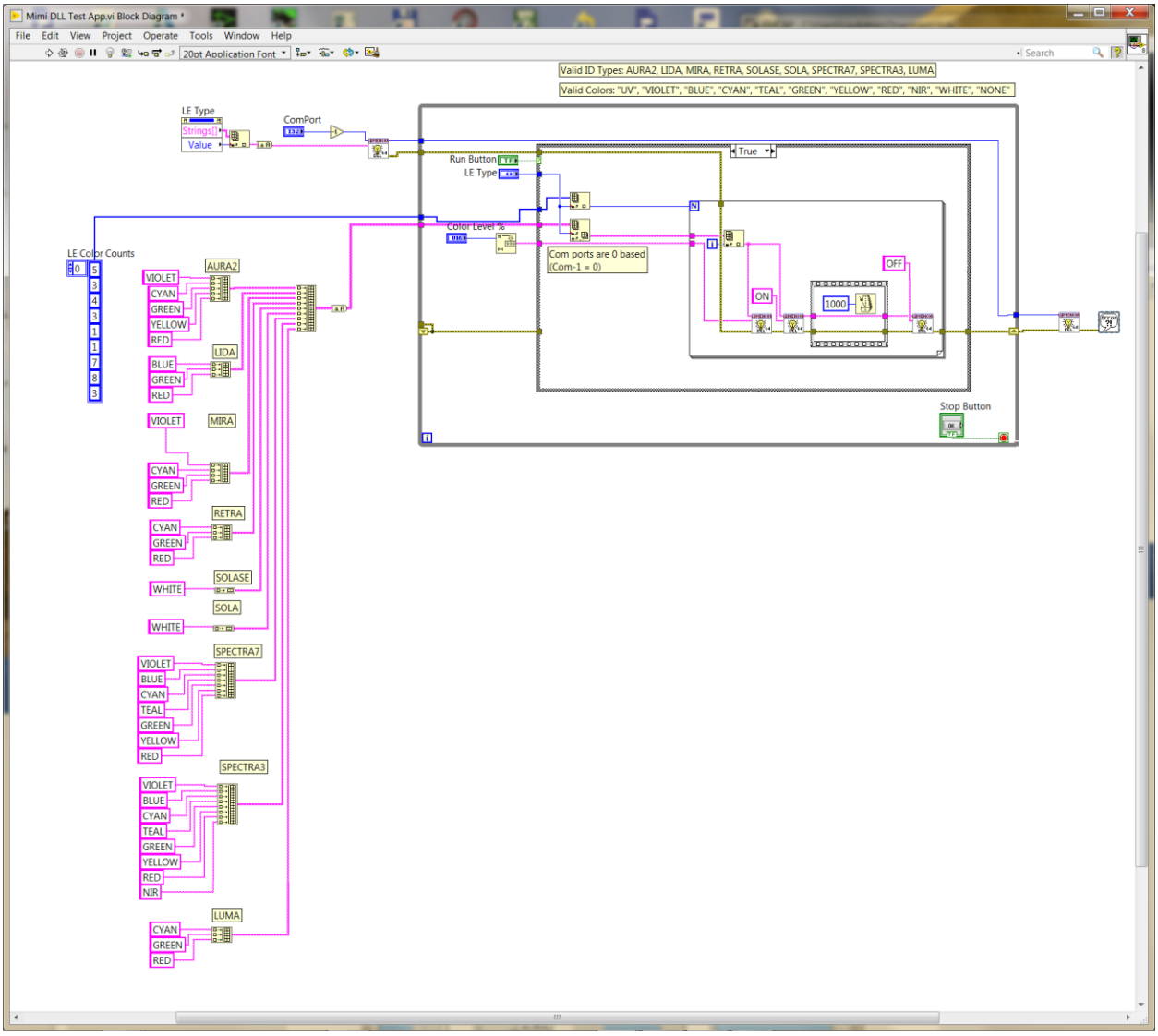
The Get LE State function is used with Sola and SolaSE light engines only. This call will send a command to the Light Engine to query the Level and Enable state. The value returned will be an integer that contains both the enable state and Level info.

The lower 8 bits of the returned value will contain a value between 0 and 100. This is the current Light Level as a percent of full scale. The upper part of the value is the enable state and it will contain either a 1 or a 0 with 0 indicating the LE is OFF and 1 that it is ON.



The Mimi DLL test Application provides a very simple example of how to use the LabVIEW library to control the light engine. This application will toggle each color for the respective Light Engine ON for one second then Off at the level you specify. The application uses a color map to determine how many colors each light engine supports and what the Colors are. A future version of the DLL will allow the remapping of colors in the case a source differs from the default colors.




Mimi DLL Test App.vi Block Diagram *
File Edit View Project Operate Tools Window Help
Valid ID Types: AURA2, LIDA, MIRA, RETRA, SOLASE, SOLA, SPECTRA7, SPECTRA3, LUMA
Valid Colors: "UV", "VIOLET", "BLUE", "CYAN", "TEAL", "GREEN", "YELLOW", "RED", "NIR", "WHITE", "NONE"
LE Type
ComPort
Run Button
LE Type
Color Level %
Com ports are 0 based
(Com-1 = 0)
True
OFF
ON
1000
Stop Button
LE Color Counts
AURA2
VIOLET
CYAN
GREEN
YELLOW
RED
LIDA
BLUE
GREEN
RED
MIRA
VIOLET
CYAN
GREEN
RED
RETRA
CYAN
GREEN
RED
SOLASE
WHITE
SOLA
WHITE
SPECTRA7
VIOLET
BLUE
CYAN
TEAL
GREEN
YELLOW
RED
SPECTRA3
VIOLET
BLUE
CYAN
TEAL
GREEN
YELLOW
RED
NIR
LUMA
CYAN
GREEN
RED