

SOFTWARE DEVELOPMENT KIT SPECIFICATIONS

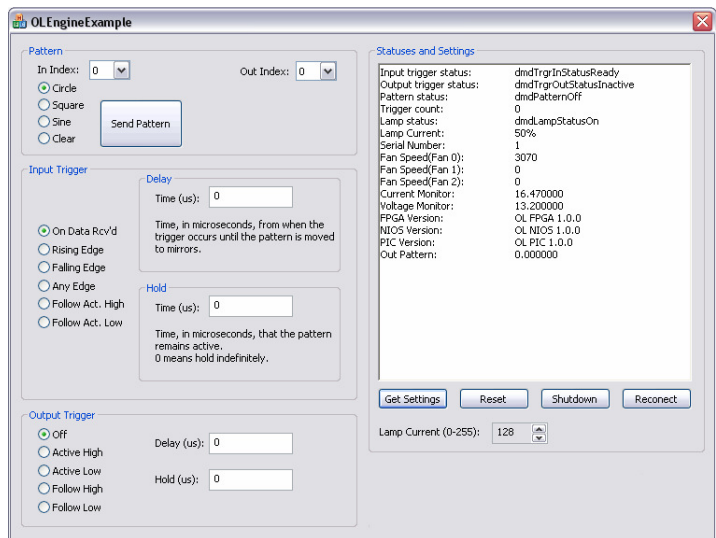
The unique features of the OneLight™ Spectra are powered by the OneLight Light Engine. Our sophisticated electronic systems that incorporate and control the Texas Instruments DMD chip are the heart of this light engine. The software development kit gives users low-level access to this engine, letting users develop powerful applications. This provides direct access to functions implemented in our high-speed FPGA controller, giving customers precise digital control of the wavelength, intensity and exposure time of the illumination output. The OneLight Engine is programmable via a dynamic linked library (.DLL), callable from applications developed under a range of programming environments for the Windows operating system (XP or higher). Customers can access the functions of the DLL

and write programs in any programming language that can call a DLL (C++, LabVIEW, Java, MATLAB, etc.). User-written programs are expected to be the main control mode for the OneLight Spectra. The SDK includes a Programming Manual that describes in detail all of the functions available in OneLight's DLL. Among the functions described are: general functions for initiating communications between the computer and the device, functions for controlling the unit through its TTL-input/output, functions for regulating and controlling data transfer and functions for monitoring certain aspects of the

```
CString COLEngineExampleDlg::GetTriggerCountString()
{
    CString oStr = _T("Trigger count: \t\t");
    int nValue = dmdGetTriggerCount( m_hDMDDevice );

    if ( nValue >= 0 )
    {
        oStr.Format( _T("%s%d"), CString(oStr), nValue );
    }
    else
    {
        oStr.Append( GetErrorString( nValue ) );
    }
    return oStr;
}
```

A portion of sample code from example program included in SDK



Graphical User Interface for example program included in SDK

Spectra. From these and other functions, users can create complex programs that integrate the Spectra into their application framework. As a starting point, the SDK also includes an example program which highlights the ways in which the DLL can be used to create a user-friendly application or program to control the information and instructions going to and coming from the Spectra.

The OneLight Spectra Software Development Kit includes:

- Programming Manual
- OneLight Light Engine DLL
- Example Executable Program and Example Code