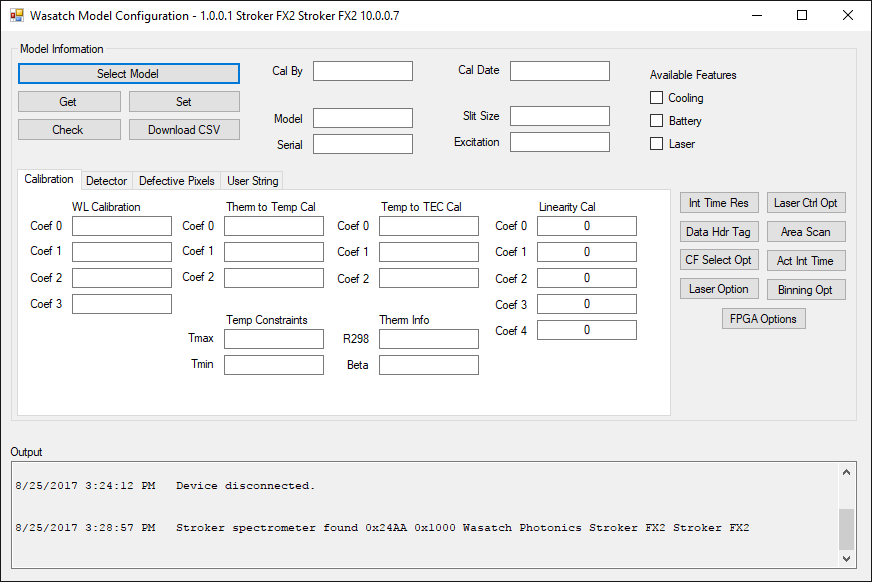
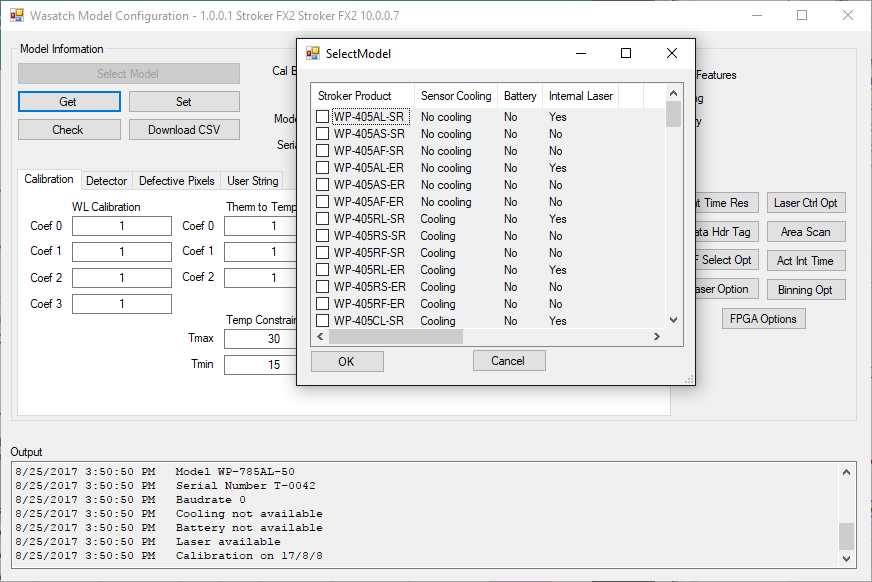
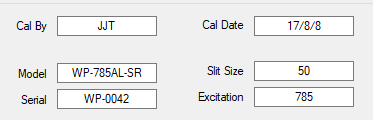
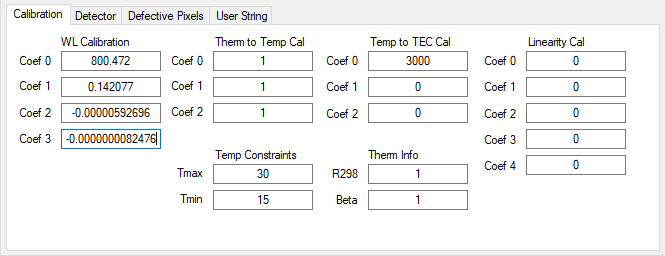
**Revision History**

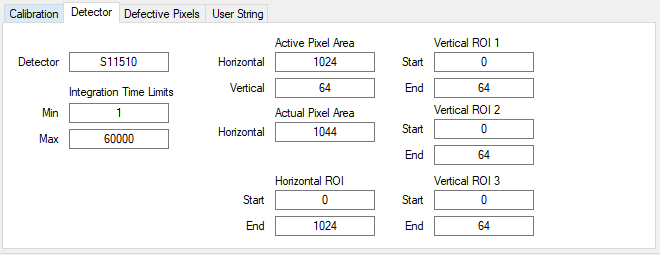
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Doc #** | **Date** | **Author** | **Description** | **Rev.** |
| PRD-0091 | 5/19/17 | J. Traud | Initial Release | A |
|  | 8/25/17 | J. Traud | Model Configuration program update | B |

1. **Applicability**
   1. All WP Raman spectrometers using the Feature Identification firmware.
2. **Purpose**
   1. Apply device specific parameters to the device’s EEPROM to be used by the ENLIGHTEN software package.
3. **Required Files and Tools**
   1. PRD-0091 Model Configuration program version 1.2.0.11 or newer
   2. Supported firmware   
      *For the FX2 based boards this is version 10.0.0.3 or newer*
   3. Calibration coefficients or approximate starting values
   4. Work Ticket  
      *This will have the appropriate model number*
   5. Detector information  
      *This information should also be on the work ticket or sales order*
4. **Instructions**
   1. Launch the Model Configuration Software  
      
   2. Click on the Select Model button and then select the correct model number from the list. If it does not appear, select the closest option. Click “OK”  
      
   3. Begin entering the basic order information  
      

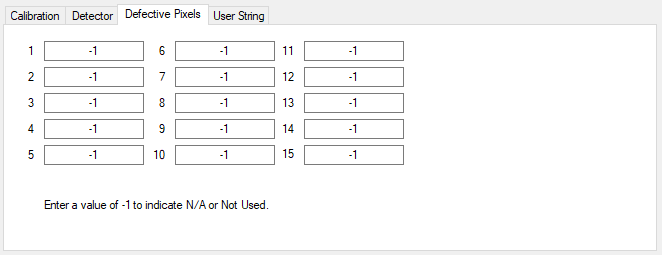
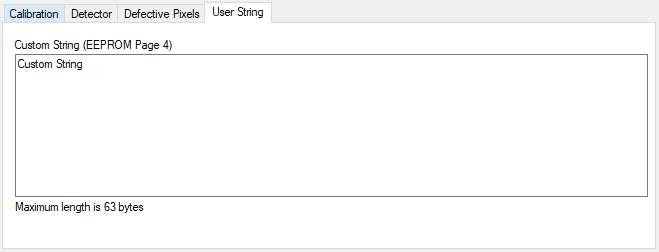
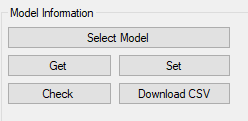
|  |  |
| --- | --- |
| **Field** | **Description** |
| **Cal By** | Your initials |
| **Cal Date** | The date the calibration data was taken |
| **Model** | Model number from the work ticket. This does not include the slit size |
| **Serial** | Serial number from the work ticket |
| **Slit Size** | Slit size from the work ticket |
| **Excitation** | Excitation wavelength from the work ticket |

* 1. Fill in the calibration information from the appropriate PRD or SWI documents  
     

|  |  |
| --- | --- |
| **Field** | **Description** |
| **WL Calibration** | Wavelength calibration coefficients. These convert a detector pixel value to a wavelength or wavenumber value. |
| **Therm to Temp Cal** | Temperature readback coefficients. These convert the raw ADC value reported by the instrument into a temperature value in the software.   |  |  |  | | --- | --- | --- | |  | **S11511** | **S10141** | | **ADC Coeff 0** | 61.42344811 | 64.22231729 | | **ADC Coeff 1** | -0.01121234 | -0.01298637 | | **ADC Coeff 2** | -0.00000080 | -0.00000182 | |
| **Temp Constraints** | Maximum and minimum temperature you can set in the software   |  |  |  |  | | --- | --- | --- | --- | |  | **Old Tec** | **S11511** | **S10141** | | **Tmax** | 20 | 20 | 15 | | **Tmin** | 15 | 10 | -15 | |
| **Temp to TEC Cal** | Converts the entered target temperature to a raw DAC value for the spectrometer. These values should |
| **Therm Info** | Base thermistor information.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Old Tec** | **S11511** | **S10141** | **G9214** | | **R298** | 10000 | 10000 | 10000 | 5000 | | **Beta** | 3450 | 3450 | 3450 | 3200 | |
| **Linearity Cal** | Linearity Calibration Coefficients. If these are not provided from the calibration report, enter a value of 0. |

* 1. Enter the detector information  
     

|  |  |
| --- | --- |
| **Field** | **Description** |
| **Detector** | The detector from the work ticket |
| **Integration Time Limits** | All instruments have a minimum integration time of 1ms and a maximum integration time of 60000 |
| **Active Pixel Area** | The used pixel size for the detector   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **S11510** | **S11511** | **S10141** | **G9214** | | **Horizontal** | 1024 | 1024 | 1024 | 512 | | **Vertical** | 64 | 64 | 144 | 1 | |
| **Actual Pixel Area** | The actual number of horizontal pixels for the detector   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **S11510** | **S11511** | **S10141** | **G9214** | | **Horizontal** | 1044 | 1044 | 1044 | 512 | |
| **Horizontal ROI** | For future use. Use 0 for the start and 1024 or 512 for the end |
| **Vertical ROI #** | For future use. Use 0 for the start and 1, 64, or 144 for the end |

* 1. Enter any found defective pixels on the next tab. Order does not matter.  
     
  2. The “User String” section is currently not used.   
     
  3. Once the form is complete, click on the “Set” button on the top.  
       
     
  4. To validate that the programming took, close the program, power cycle the device, open the program again and click on the “Get” button. When done all of the information you just entered will be visible again.