

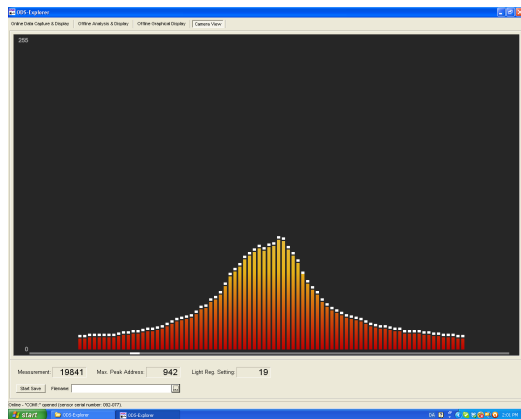
Trouble shooting ODS sensors

When the sensors leave DSE they are set to output “Light Intensity Codes”.

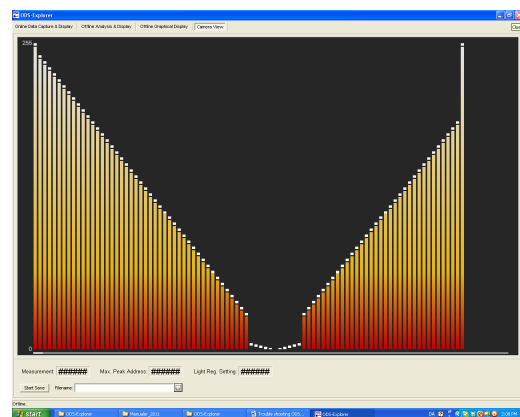
This standard setting provides a possibility for a quick diagnose of too little light or too much light/False light. See in the ODS Hardware Manual's under “Select Sensor Settings”.

If a more thorough diagnose is required a “Camera View” functionality is offered. When the ODS-Explorer software display the first page “Online Data Capture & Display” it is possible to call forward a 4TH page called “Camera View” by holding down the Ctrl and Shift buttons and at the same time punch the sequence D, S, E.

Without a sensor connected a V formed “Bar Graph” of (virtual) Pixel values is displayed in the upper half of the page. Below 3 fields display: “Measurement” i.e. distance reading, “Max. Peak Address” i.e. the Pixel number, out of 2048, of the centre pixel of the extracted 100 pixel values displayed above, and finally the “Light Reg. Setting” i.e. an Integer between 1 and 624 giving the duty cycle/duration used for having the Laser Diode ignited.



It is also possible to analyze the light information from the CCD camera in numerical form. This requires that the data is written / saved to a file on a hard disk. When the “Start Save” button is toggled a special long record is saved for every 100 normal 3 byte telegrams with the following format: Measurement value, Max. Peak Address, Light Reg. Setting, followed by 100 pixel values from the CCD camera.



When a sensor is connected and the power is on, the stream of data telegrams is paused / periodically interrupted while the 100 telegrams needed for displaying the “Laser Dot” on the camera is read out and displayed as described above. In this way all the information the sensor uses for the calculation of a single distance (or null) value can be displayed graphically.

