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Introduction

Congratulations! You have just acquired the FLUOcol colorless quality control software to be used with the Invisible Ink Densitometer FLOU.

Important: This manual describes the current version of the CREASY hardware and software. Future enhancements or modifications are reserved.

Safety Instructions

Warning

For safety reasons it is absolutely necessary to read through the user's guide and all of the instructions it contains.

General safety rules

If the safety recommendations and instructions in this User Guide are not complied with, measurement errors or data loss or physical injury or property damage may result

• FLUOcol does support you to collect measurement data. In any case the operator has to take final decisions on how to use the data by himself.

Installation

Start your Computer and wait until all boot processes have terminated and your computer is ready to operate. **Do not plug the USB cable in at this time.**

Plug the CREASY USB Memory Stick into a free USB Port and wait until Windows has recognized and registered the USB Stick as a Mass storage Device.

Install the FLUOcol software

Do not plug the USB cable of the FLUO device before the FLUOcol Software has been installed.

Start your Computer and wait until all boot processes have terminated and your computer is ready to operate. Plug the FLUOcol USB Memory Stick into a free USB Port and wait until Windows has recognized and registered the USB Stick as a Mass storage Device. The USB Memory stick contains a setup utility 'setup FLUOcol vXXXX.exe', whereby XXXX is the actual Software Version number. Run this application to install the FLUOcol Software on your PC.

Once the setup is ready, you can connect the FLUO to a USB2.0 port. Wait until Windows has registered the driver.

DRIVER without digital signature

On Windows 8.1 or Windows 10 there might arise an error message that the PERET USB Driver does not have a digital signature. In this case it is necessary to boot your Windows in a special mode to enable the driver installation.

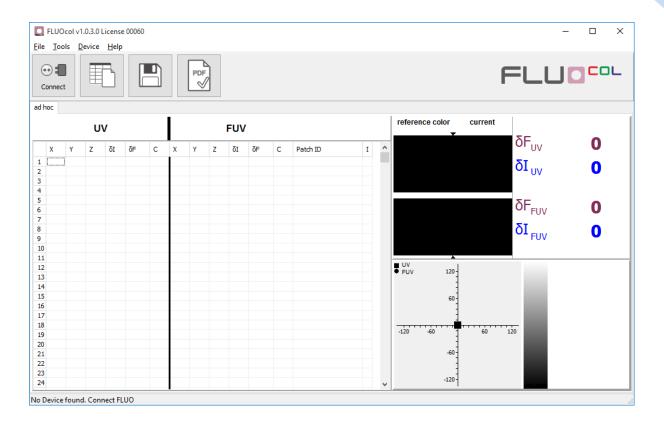
Instructions can be found at https://www.youtube.com/watch?v=71YAlw7 -kq

- Hold down the shift key and restart your computer
- Select the option Troubleshoot
- Select Advanced options
- Select Startup Settings
- Click RESTART
- Press number key 7 on your keyboard (Disable driver signature enforcement)
- Windows will restart and the driver now can be installed correctly.
- Use the device manager manager to update the driver PERET USBDRV.inf located in the FLUOcol folder.

Run the FLUOcol Application

Click the FLUOcol Icon on your desktop

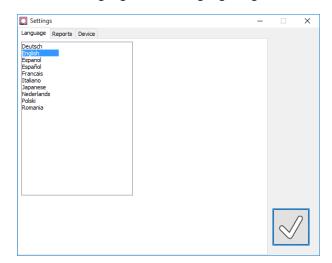




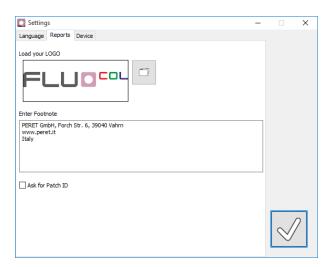
Configure the FLUOcol Software to your needs

Open the Settings from the File/Settings Menu.

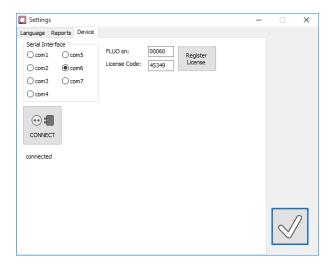
Select the language on the language Page



Select Report details on the REPORT Page. Select if you would like to get prompt to enter a patch identifier after a measurement.



Select the COM Port and connect to the device on the device page



Any FLUOcol software instance is licensed to a device. Insert the device serial number and the license code and click Register License.

Pure Color measurement vs. Intensity Color measurement

The FLUOcol software does support two operation modes how colors are interpreted.

1 Pure Color measurement

In this mode the measurement data for XYZ is normalized to 100 before translating it into Fluo-Lab and Fluo-RGB values. Use this mode to check your quality in terms of color cast and color errors.

2 Intensity Color measurement

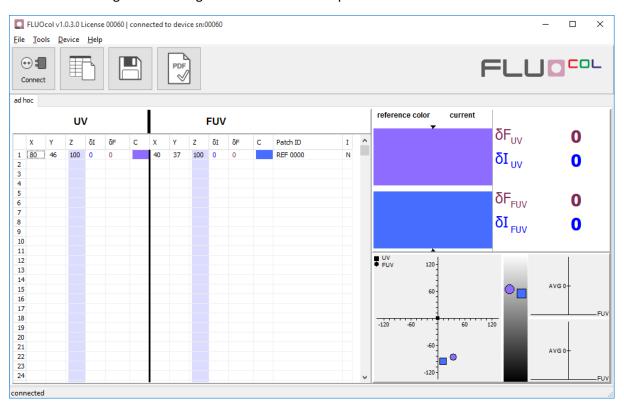
In this mode the measurement data for XYZ is NOT normalized but used as it is. The colors will appear darker or brighter depending on the intensity of the fluorescence measured on the sample.

Switch between the two modes by checking the Menu Item File/Include Intensity or pressing CTRL-I on your keyboard.

Collect data

Position the FLUO on a non fluorescent area of the substrate. Take a reading while pressing the left key of the device. The FLUO will be zeroed. The table with measurement data will be cleared and the colors will also be cleared.

Now position the FLUO on the fluorescent reference area. Press the middle key of the device down and take a reading while moving the device to its front position.



The measurement data will be added to the first line of the table and the color will be displayed properly.

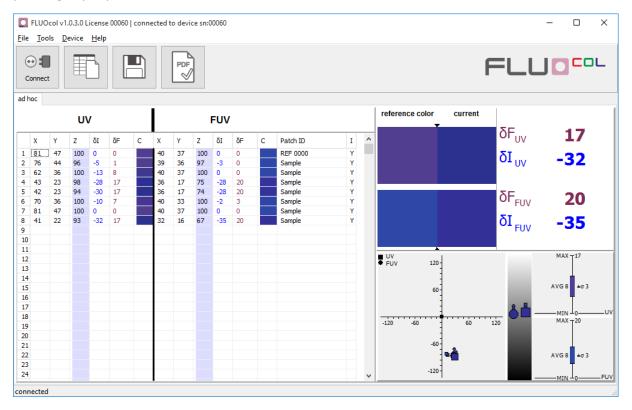
The table does contain columns for UV readings (near UV – measured with 365nm UV illumination) and FUV readings (far UV – measured with 280nm or 255nm UV illumination depending on your device)

- X ... X value measured red sensitivity of human eye
- Y ... Y value measured green sensitivity of human eye
- Z ... Z value measured blue sensitivity of human eye
- δI ... Intensity difference between reference and sample
- δF ... Florescent color difference between reference and sample
- C ... visual color appearance simulation

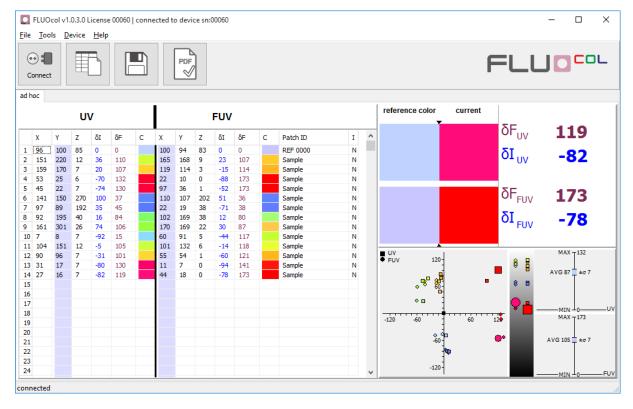
Patch ID ... REFxxx or Sample or whatever you insert if you get prompt for

I ... N = color mode, Y = color intensity mode

Position the FLUO on the fluorescent sample area. Take as many readings as required without pressing any key on the device.



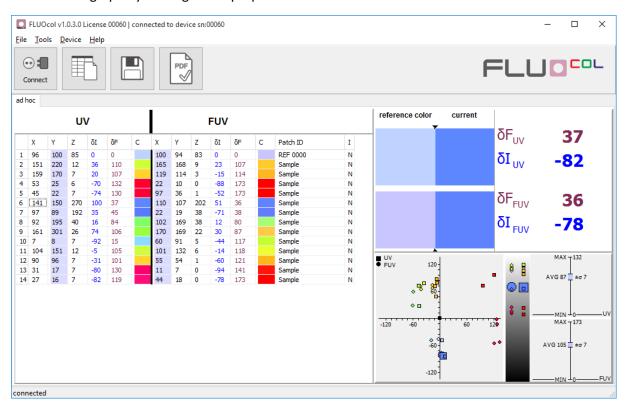
Example with Intensity Quality control



Example with color quality control

The measurement data will be added to the next row of the Table and to the graphs. The most recent measurement will be compared to the reference and the δ values will be displayed. It will also be displayed with larger symbols in the graph.

At any time you can re-select on color to display differences or to display the color in large squares or circles in the graph by clicking at the proper row of the table.



The next reading will be added to this line – so make sure you click onto the last row if you do not want to override data.

You can use this feature to override the most recent measurement.

Export the data to a tab delimited text file.

Click the Save Icon to export the table to a text delimited text file.

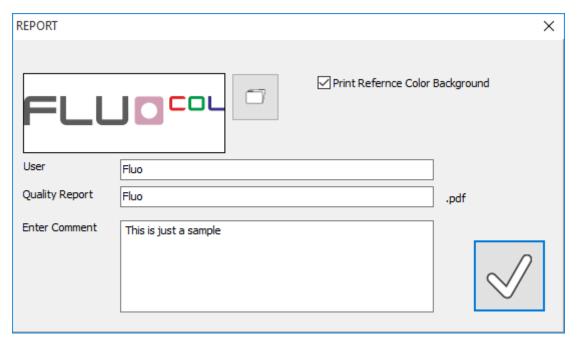


Create a PDF report

Click the PDF Icon to create a PDF report.



Enter the Report details as required



Click the Check Icon to create the report.

