

FACSDiva Cell Sorters - Camera Settings Adjustment

1. Preface

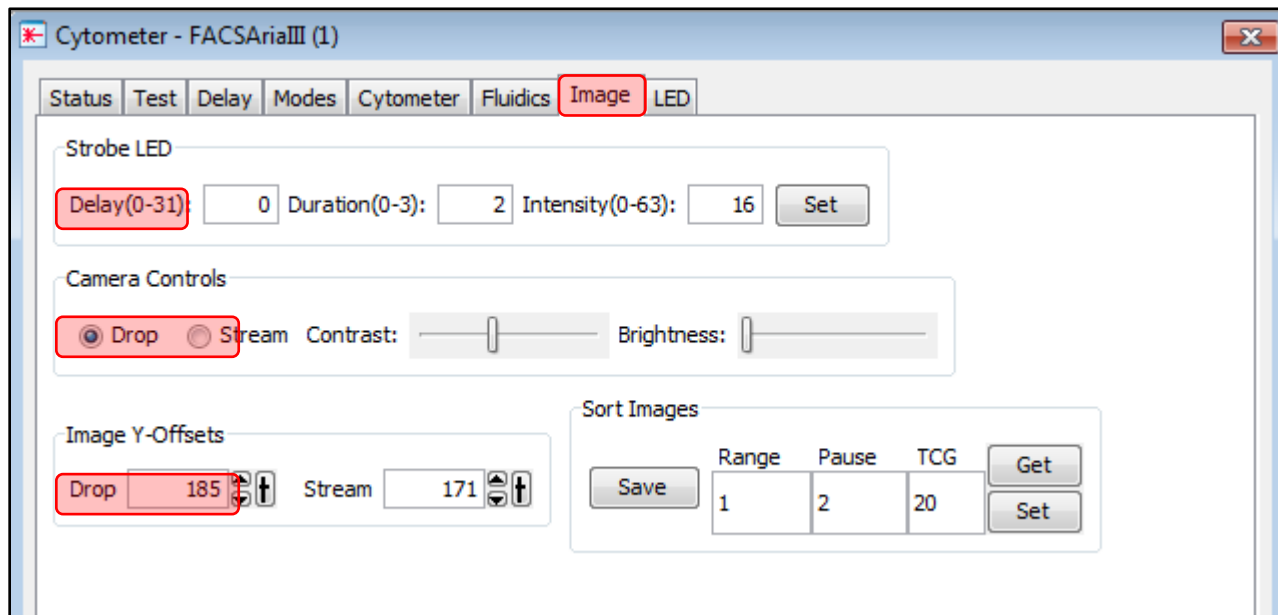
Several advanced settings in FACSDiva can be unlocked to modify parameters such as image quality and positioning. These adjustments enhance stream visualization (drop delay) and stabilize the breakoff point (Sweet Spot).

Additionally, some FACSria Fusion and FACSymphony S6 cell sorter models are equipped with digital cameras (via USB) instead of traditional analog cameras (via BNC). These digital systems rely on external configuration files for proper setup.

2. Adjusting Settings

Analog Cameras

- Log in FACSDiva as Service (i.e., UN: bdservice | PW: superman in FACSDiva 8)
- In the Cytometer window click the Image tab and modify the settings as needed:



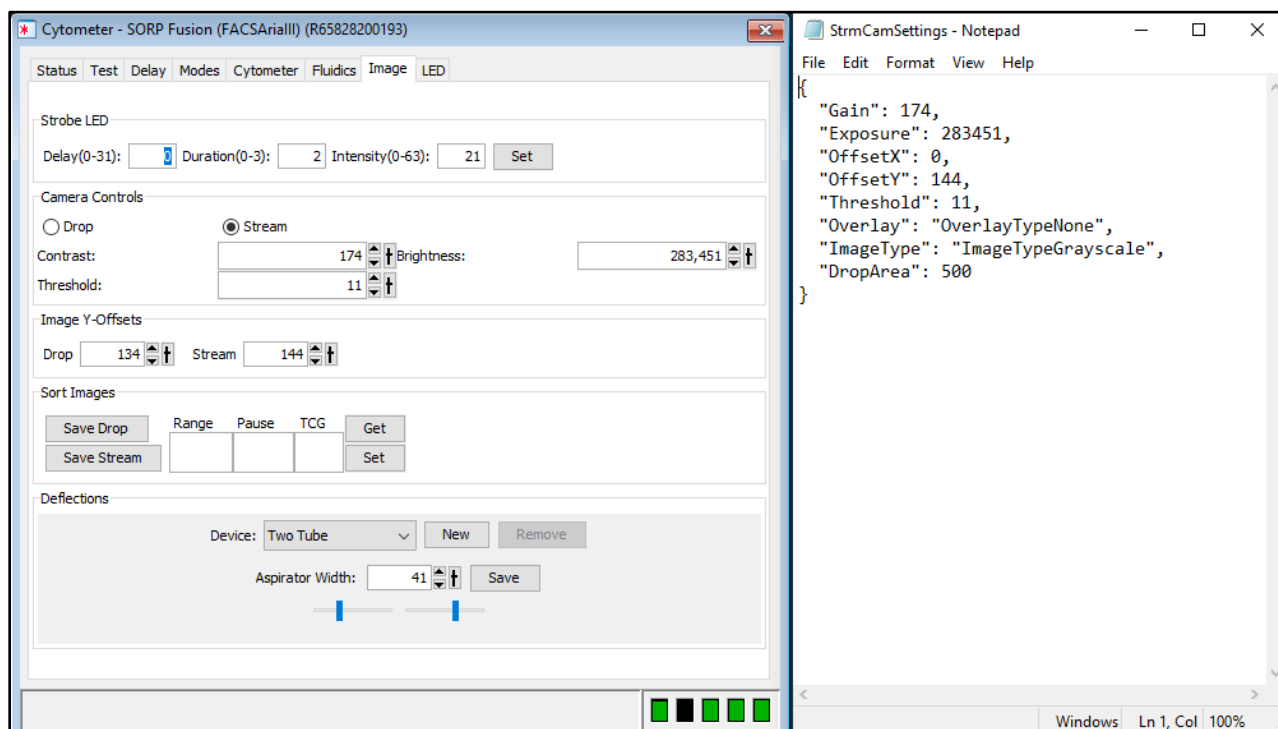
- ✓ **Strobe LED:** adjust the intensity and click Set.
- ✓ **Camera Controls:** adjust Contrast and Brightness for both Drop and/or Stream.
- ✓ **Image Y-Offsets:** adjust Drop and/or Stream positions (Drop moves the stream up/down in the drop delay window while Stream moves the breakoff stream left/right).

WORK-flow

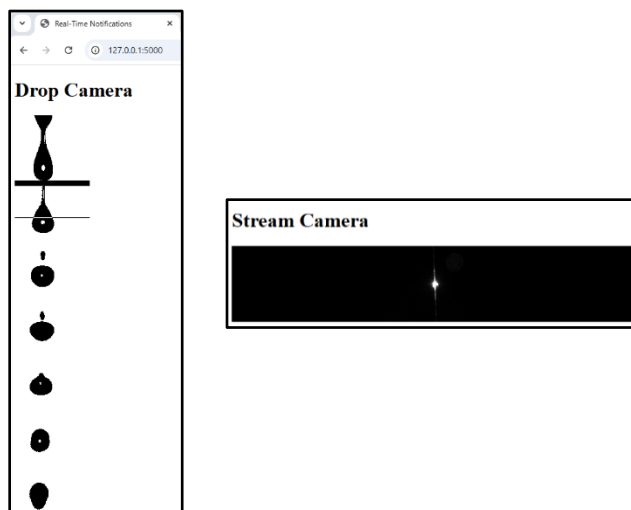
Education . Resources . Support

Digital Cameras

- The DropCamSettings.json and the StrmCamSettings.json files contain the breakoff and stream image settings are stored respectively in the DropCamSettings.json and the StrmCamSettings.json files located at C:\ProgramData\BD\SortVision. These files are updated once FACSDiva closes. Here is an example showing the relationship between a configuration file and the FACSDiva settings:



- Since adjusting settings will require the stream to be turned off then on for changes to take effect, it is best to visualize the camera images at <http://127.0.0.1:5000>. However, when images are displayed simultaneously on the web and in FACSDiva, the output freeze in the software, requiring a restart.



WORK-flow

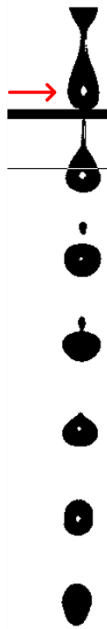
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The images below illustrate the effects of various adjustments:

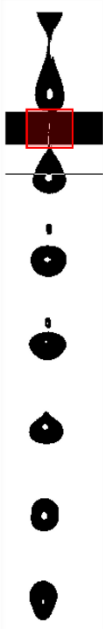
**Original
Breakoff:**
Proper
settings



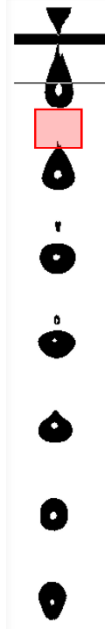
**Decreased
Offset:**
Stream
moves right



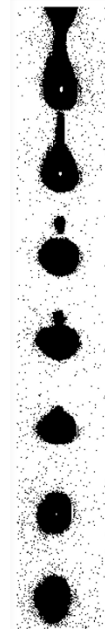
**Elevated
Contrast:**
pixelated
ligament



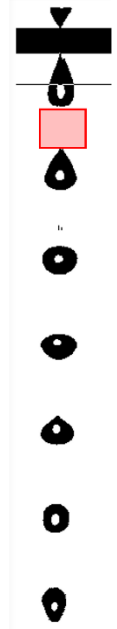
**Increased
Brightness:**
washed out
ligament



**Decreased
Brightness:**
noticeable
noise



**Decreased
Threshold:**
washed out
ligament



Note: to adjust the stream left/right in the drop delay window, manually move the lower camera.
Note: settings need to be adjusted after installing a blank database.