

UF | ICBR Cytometry

University of Florida, Interdisciplinary Center for Biotechnology Research

<https://biotech.ufl.edu>

CTAC / ICBR SOP : Using the IVIS in Sequence Mode

Title: Operation of the IVIS Spectrum in Sequence Mode

Materials Required:

- Experimental subject
- IVIS instrument & Living Image™ software
- Bottle of Isoflurane (anesthetic) as required
- Vaporizer filler tube and screw neck mount as required
- Oxygen source as required

Purpose:

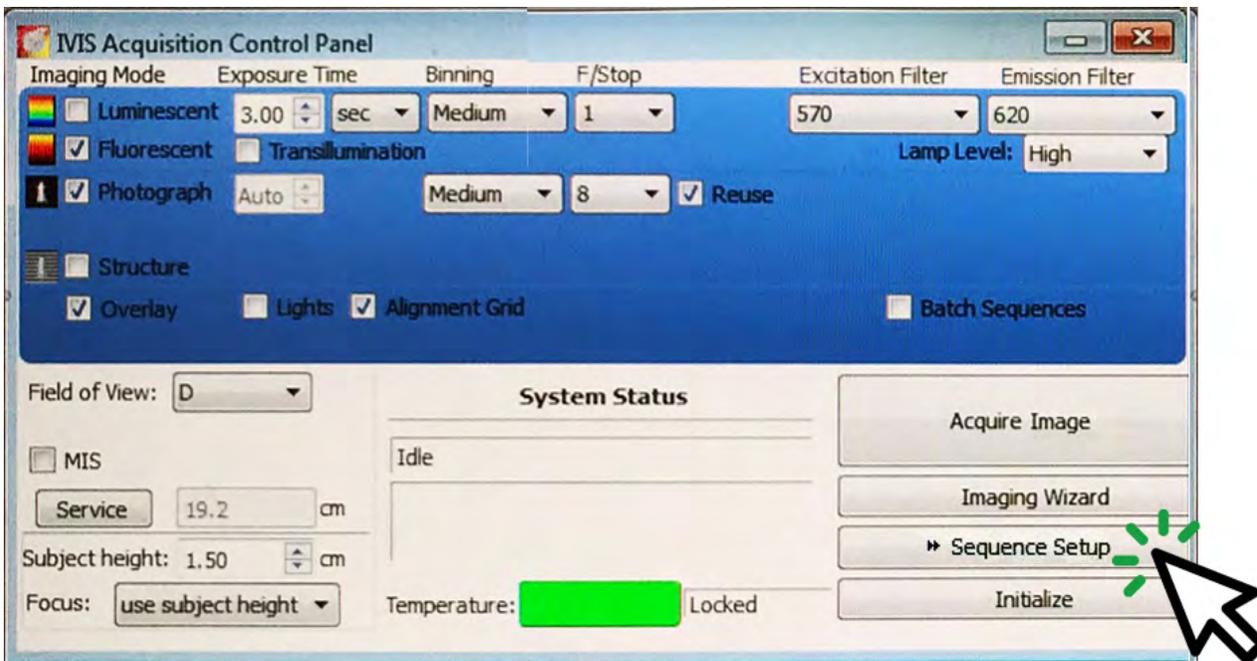
To understand the function and utilize the Living Image™ software in Sequence Mode while controlling the IVIS instrument.

Background:

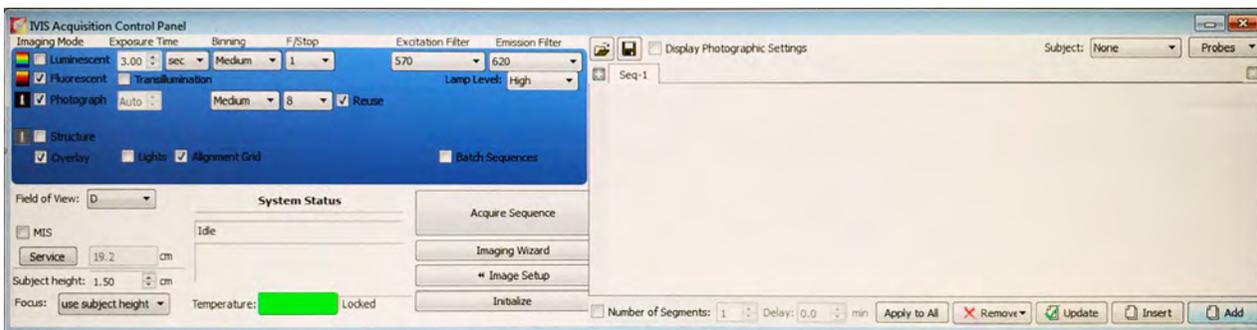
The Living software can toggle between two modes. The default mode is Image Mode, and this will take a single image scan. The software may be also toggled into Sequence Mode, which allows the sequential taking of multiple image scans based on parameters that are determined by the user. These can speed up the optimization of conditions for imaging for a planned project.

Sequence Scanning:

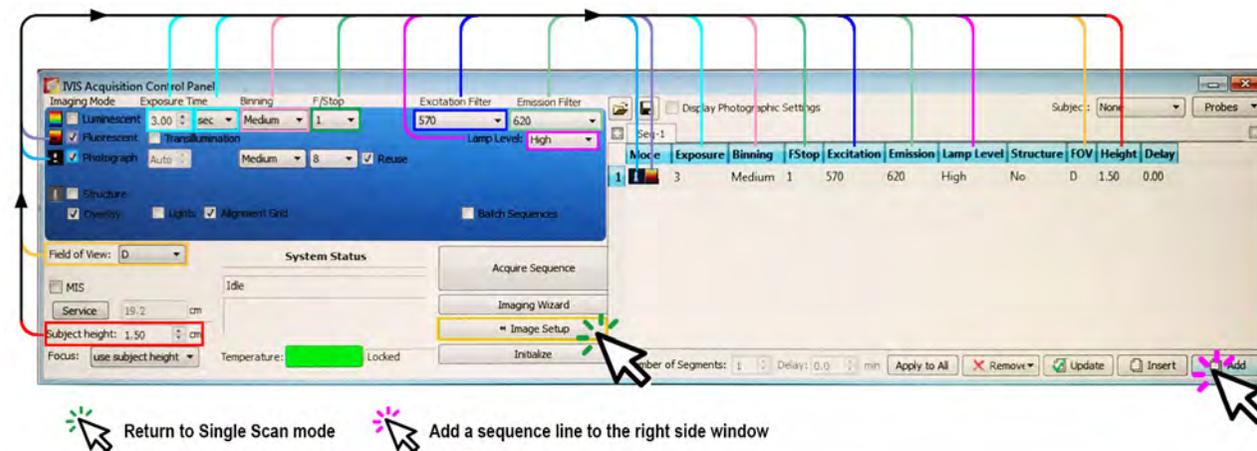
To set the machine into sequential scan mode, the Sequence Setup button should be clicked.



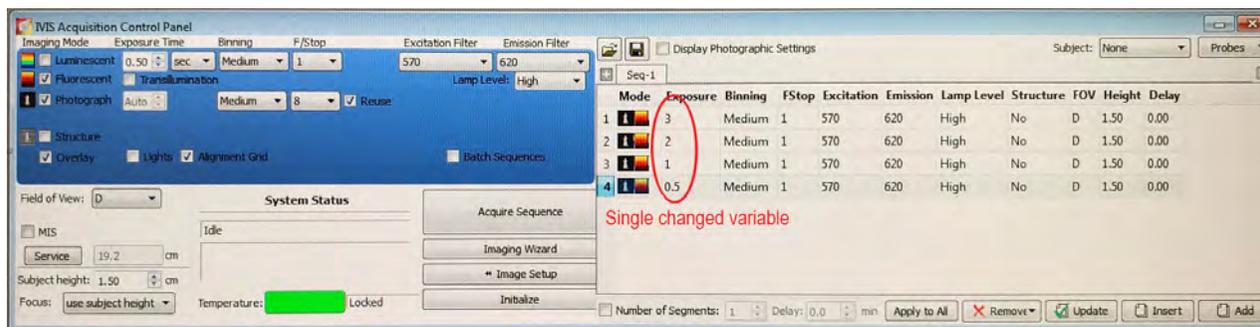
When the Sequence Setup is selected, the window will resize and relocate to the bottom right hand side of the screen. It will now have an additional pane to the right side of the Control Panel.



When the scan parameters are entered, it will now be possible to click the Add button (bottom right). This will put these parameters into the right side pane.



In order to optimize scan conditions or the most appropriate scan settings, the operator should isolate only a single parameter to change.



Setting up a sequence can be a valuable diagnostic or optimization tool. A number of identical scans excepting a single variable can be run back-to-back, allowing direct and visual comparison of the effects of parameter change. The most common use of sequence scans is to optimize exposure times or to optimize emission filters.

For more information on exposure optimization, please see [CTAC / ICBR SOP Running an Exposure Sequence \(https://ctac.mbi.ufl.edu/ivis-spectrum-how-to-documents-and-sops/ctac-icbr-sop-running-an-exposure-sequence/\)](https://ctac.mbi.ufl.edu/ivis-spectrum-how-to-documents-and-sops/ctac-icbr-sop-running-an-exposure-sequence/)

For more information on emission optimization, please see [CTAC / ICBR SOP Running an Emission Filter Sequence \(https://ctac.mbi.ufl.edu/ivis-spectrum-how-to-documents-and-sops/ctac-icbr-sop-running-an-emission-filter-sequence/\)](https://ctac.mbi.ufl.edu/ivis-spectrum-how-to-documents-and-sops/ctac-icbr-sop-running-an-emission-filter-sequence/)

If an input error is made and requires correcting, each item or value within the sequence pane is directly editable. It is not necessary to delete whole lines or sequences to correct transcription errors.