OCS

Small Animal Imaging Core Facility

Quick Users Manual

This is a self service facility
It only works if everyone follows the procedures
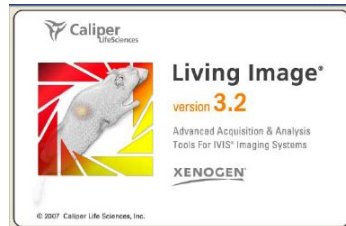
How to Start

1. **Signup user logbook**

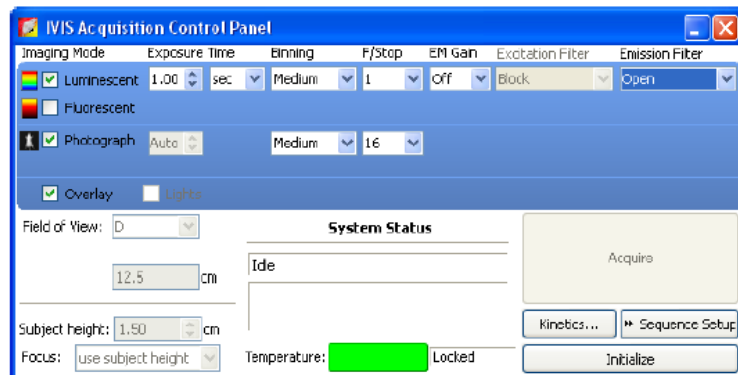**Login:**   IVISuser
Pwd: user

2. **Double click on Living Image Software icon**

3. **Select your 2-letters lab user ID**

4. **Initialize the unit and WAIT for the GREEN light**

1. Click here

2. WAIT

This takes about 10 min

You can prepare your animals during this time

URL link to online manual: http://www.caliperls.com/assets/022/8234.pdf

Prepare your animals

Only 3 mice at a time can fit together in the IVIS chamber

1. Inject animals with chromiluminescent substrate

2. Place a pad of paper towels inside the anesthesia box before introducing your mice

3. Anesthetize your mice

Paper towels here
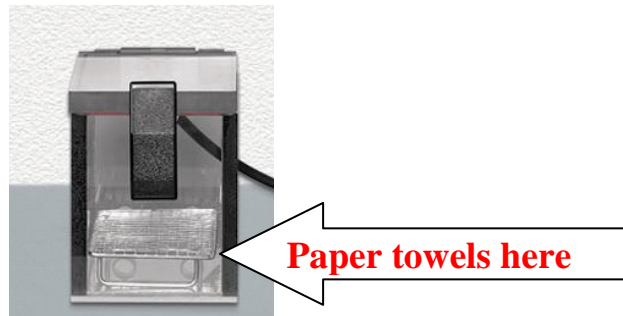
4. Place your animal(s) in the IVIS chamber

Nose cone adaptor
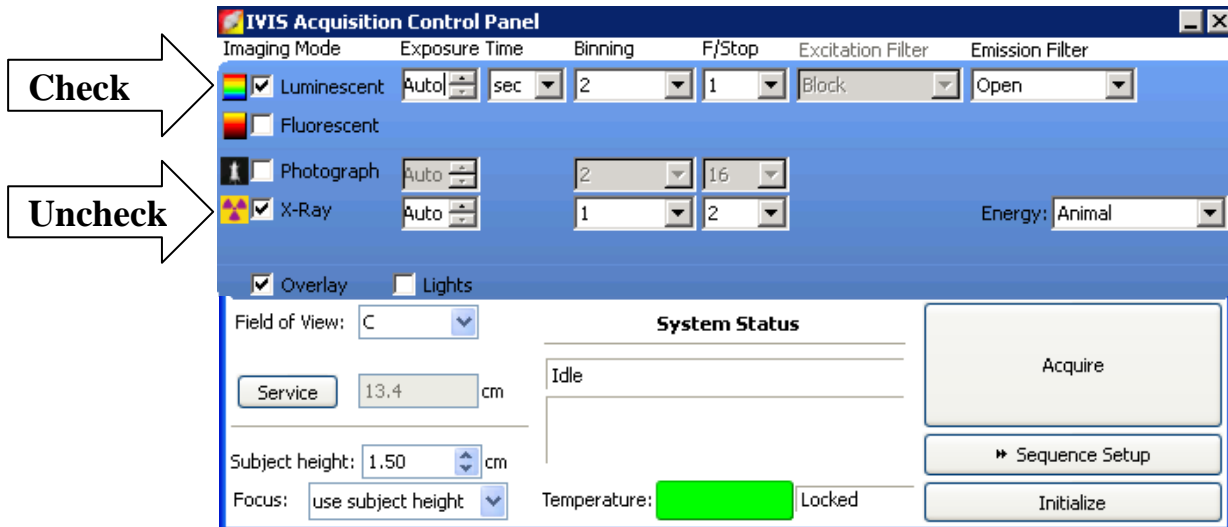
Plug unused stations
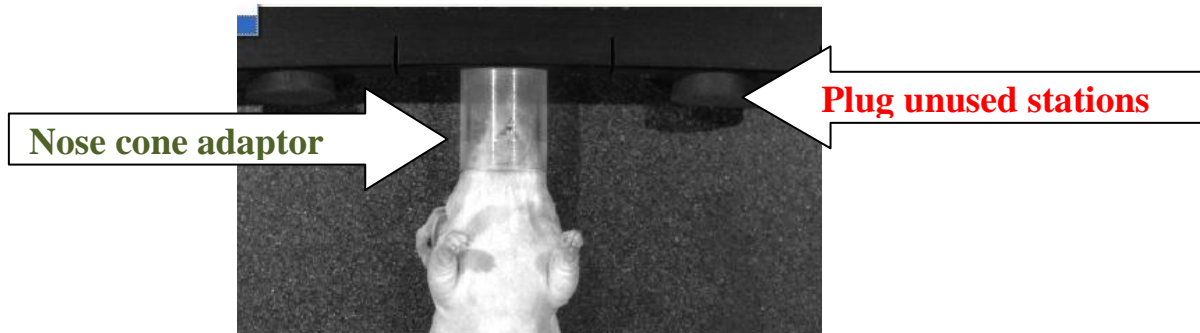
- Nose in the plastic nose cone adaptor
- Make sure to plug the unused stations with rubber corks (nose cones and plugs are in the table drawer)

5. Take **ALL** the mice out of the IVIS chamber back into a cage asap

Bioluminescence Images

1. Place your **anesthetized** mice in the chamber

2. Put a check mark next to Luminescent

Check →

Uncheck →

3. Auto exposure – At first try:
   - **Exposure time:**   **1 min**
   - **Binning:**   **Large or Medium**
   - **F/Stop:**   **1**
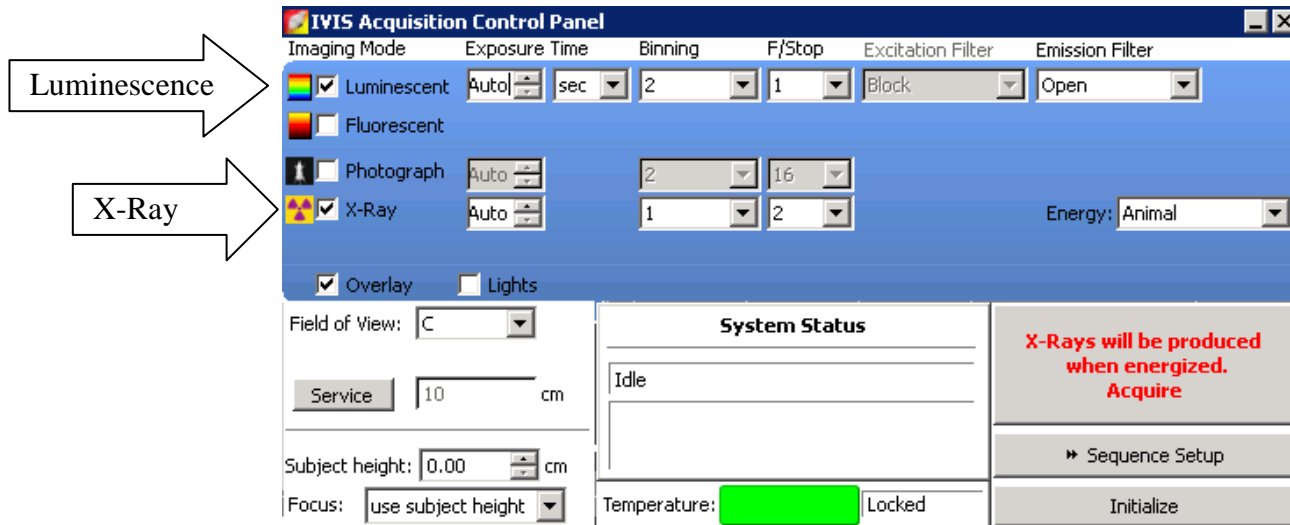
   Adjust time if needed

4. Acquire data

Click →
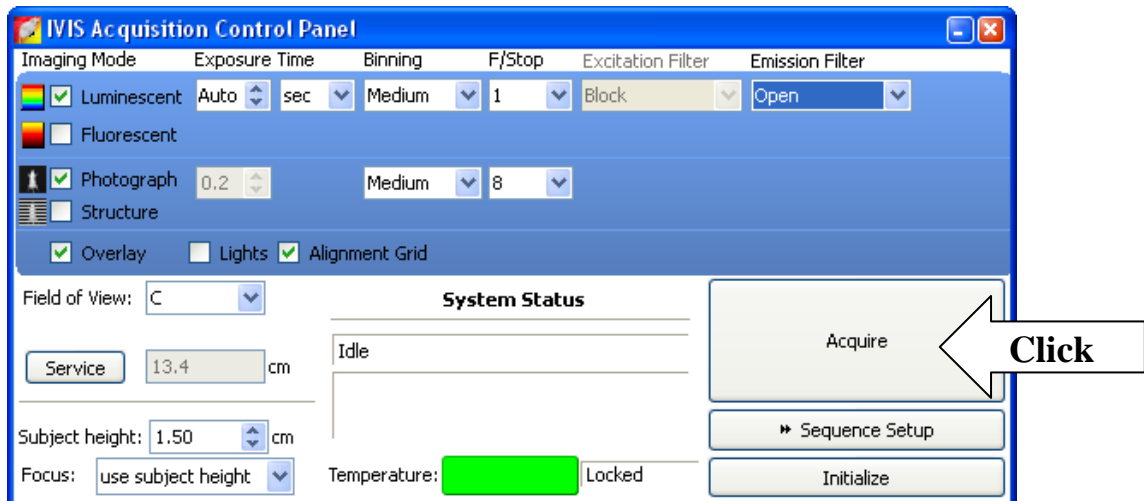
5. Label you data file and save it in the "Data temporary folder" (desktop)

Add an X-Ray

1. Place your **anesthetized** mice in the chamber

2. Follow "Bioluminescence Images" procedure

3. Add a check mark next to X-Ray

4. Set up X-Ray mode
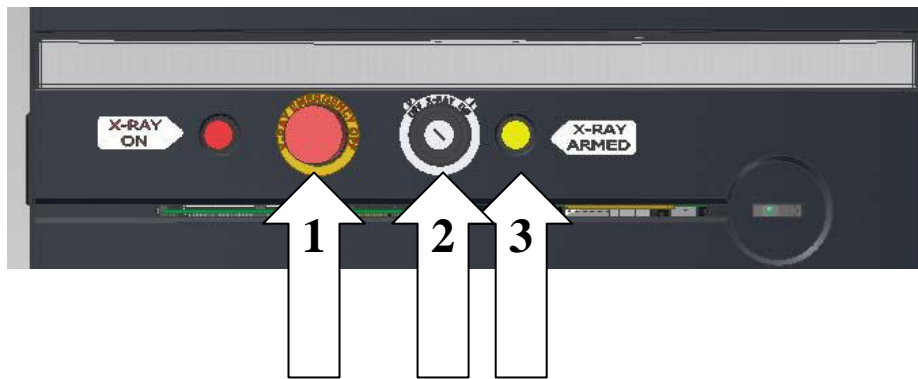
- Lock the door handle completely
- Emergency switch in the ON (out) position
- Key is turned ON.
- Push orange switch (light must be ON)

The X-ray source cannot be energized until these conditions have been fulfilled.

5. Acquire data

Checked →

Checked →

Click ←

IVIS Acquisition Control Panel

Imaging Mode	Exposure Time	Binning	F/Stop	Excitation Filter	Emission Filter
☑ Luminescent	Auto sec	2	1	Block	Open
☐ Fluorescent					
☐ Photograph	Auto	2	16		
☑ X-Ray	Auto	1	2		Energy: Animal

☑ Overlay   ☐ Lights

Field of View: C

Service   13.4   cm

Subject height: 1.50 cm

Focus: use subject height

System Status

Idle

Temperature: [green] Locked

Acquire

» Sequence Setup

Initialize

6. Label you data file and save it in the "Data temporary folder" (desktop)

7. Return the key to the OFF position

Fluorescence Images

1. Place your <u>**anesthetized**</u> mice in the chamber

2. Turn on the Fluorescence light source (lower shelf)

3. Put a check mark next to Fluorescent

3. Select excitation and emission filters

4. Acquire data
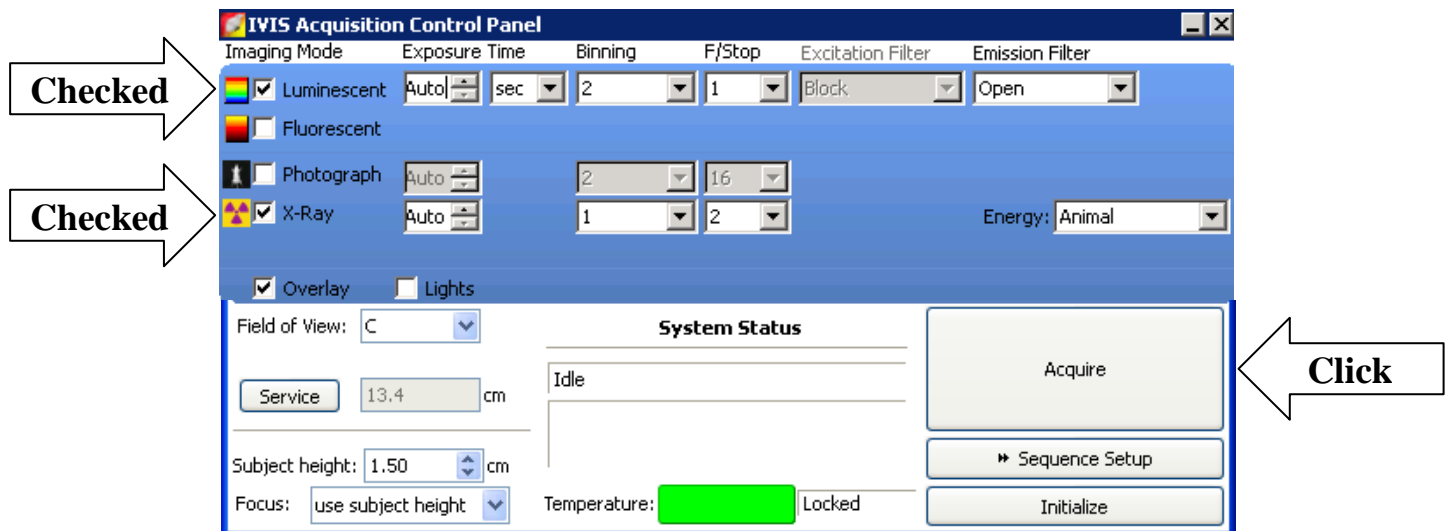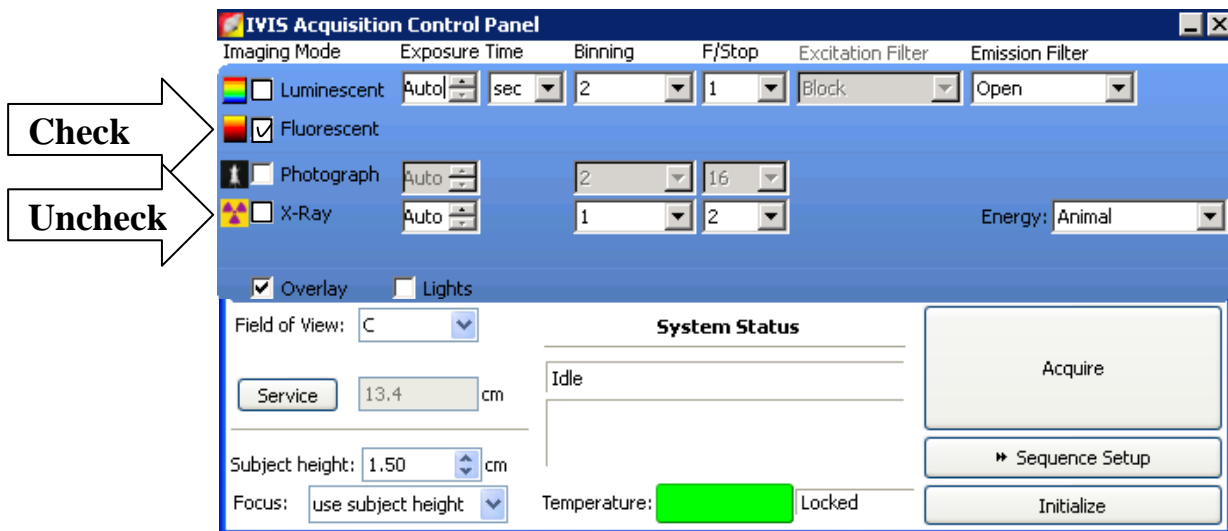
5. Label you data file and save it in the "Data temporary folder" (desktop)

When you are done

1. Take **ALL** the mice out of the IVIS chamber

2. Gently <u>wipe</u> clean all surfaces
   Use cleaning solution provided by DLAR
   Do not spray or pour cleaning solution into the chamber

3. Clean the anesthesia box
   Remove paper towels
   Wipe with cleaning solution

What to do with the images?

1. **Close Living Image Software:**
   x in the upper right corner of the screen
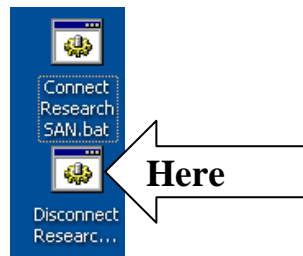
2. **DO <u>NOT</u> LEAVE YOUR IMAGES ON THIS COMPUTER**

   <u>**Option 1: Export in your lab SAN space**</u>
   - **Click on the "Connect Research SAN" icon** (desktop)

    Here

   - **Follow the prompts**
     - ❖ **enter your SAN lab name (XXXlab)**
     - ❖ **login with Kerberos ID and password**
     - ❖ **drag your data onto your SAN space**
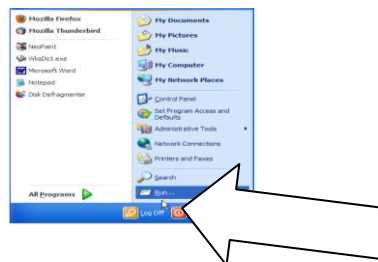   - ❖ **LOGOUT: Click the "Disconnect Research SAN" icon**

    Here

   <u>**Option 2: Copy your data on a USB flash drive**</u>
   - **USB port on the left side of the monitor**

   <u>**Option 3: Burn a CD**</u>

1. **Delete your files from the computer**

3. **Logoff IVISuser**

4. **DO NOT Shutdown the computer**

5. **DO NOT turn off the main ON/OFF switch in the back of the instrument**

Data Analysis Workstations

Analysis software is available at 4 workstations:

- Ehrman Medical Library (Graphic area)
- Smilow 308
- MSB 530
- HJD (location TBD)

2-letters lab user IDs

- IA   Aifantis lab
- AE   Erlebacher lab
- JH   Hay lab
- EH   Hernando Lab
- KS   Kirsch lab
- DL   Levy lab
- RN   Novick lab
- OO   O'Connor lab
- HB   Samuels lab
- JT   Torres lab
- HB   Samuels lab
- YW   Radiology

If your lab does not have a user ID contact Sheenah Mische (Skirball 3). Please do not create your own lab ID.

PLEASE READ

- **If you don't know ask!**
  - ➤ <u>Luigi Scotto</u> **(O'Connor's lab)**
    - ext: 3-9123   Smilow 1306

  - ➤ <u>Maria Guijarro</u> **(Hernando's lab)**
    - ext: 3-9054   Smilow 3

- **DO NOT TURN OFF the main ON/OFF switch in the back of the instrument**

- **DO NOT shutdown the computer**

- **All data files left on the computer will quickly be erased**

- **Leave the equipment clean**

- **Leave the room in order**