

## Instructions for Digitization\_STAR

Updated 23 FEB 2016

Using Canon EOS 5D camera and APCR-purchased imaging station

1. Turn on and log into computer...log in with username .\user and password user@Atu
2. Turn on camera and remove lens cover.
3. Turn on photo-e-box and make sure all switches are on except 1<sup>st</sup>, 2<sup>nd</sup>, and 5<sup>th</sup> switch.
4. Remove top doors on box; place top doors under imaging unit.
5. Open EOS Utility.
6. Select Camera settings/Remote shooting. Camera settings should be: K, 1/80, F1 0, 5500, ISO 100, RAW + L.
7. Click Live View shoot; make sure live view is on the large monitor in full screen view.
8. On the EOS 5D Mark III go to preferences to select Destination Folder.
9. C:\Users\user\Pictures\STAR\DATE (You will need to create a new folder with the current date for each new imaging day in the following format: YYYY-MM-DD).
10. Open folder to see new imaging file in the STAR folder.
11. Name by shooting date. New folder should be automatically set to shooting date, with "Download images" box checked. Underline is the delimiter. Press OK.
12. To sort the images by date modified-
  - Click on the "more options" arrow at the top right of the window. A pull down menu will appear
  - Click on "Details"
  - Scroll to the right and click on "date modified" at the top
  - Click on the "more options" arrow again to select you desired view (large icon view recommended)
13. Open internet browser
14. In google chrome, navigate to the SERNEC portal by going to [sernecportal.org/portal/](http://sernecportal.org/portal/)
15. Click the "log on" button. Log-on using your credentials.
16. Once logged in, click the "my profile" link
17. Click "Specimen Management"
18. Click "Arkansas State University (STAR)" in the Collection Management box
19. Click "Add Skeletal Records".
20. Adjust windows for best visibility.
21. Retrieve specimens from cabinet.
22. Place specimen in Photo-e-box; top of specimen should be closest to the ruler (NOTE: This is a good time to remember the species name and county from where the specimen was collected).
23. Shut sliding doors.
24. In Remote Live View window, make sure the white focus box is positioned over at least part of the label and/or specimen. Click the Live Mode "on" in the Focus heading. This should only be done at the beginning of the imaging session or if needed throughout. This step is not needed between every photo.

25. Enter plant species name, state, and county in the skeletal data (can be done while photos are being taken).
26. Click round black shutter button on the EOS 5D Mark III software.
27. Allow camera to take two photographs before removing specimen from box (this happens quickly).
28. Open box and remove specimen.
29. Click twice on the name of the newly created raw file (.CR2) to change the name (not a fast double click).
30. Scan barcode on specimen with the scanner to change the image name.
31. Repeat for the JPG file.
32. Click "catalog number" in SERNEC window. Confirm that the county name in the skeletal data is updated before scanning barcode.
33. Scan barcode a third time. The barcode number will automatically move to the box below labeled "Records".
34. If you notice an error, or if you forgot to update the county name, to edit SERNEC Skeletal Data after it is in the "Records" box:
  - Double click on the barcode number corresponding to the specimen data that needs to be edited.
  - Make necessary changes to skeletal data.
  - Scroll down to the bottom of page and click on "yes" to save edits
35. To edit mis-labeled photographs
  - Click twice on the photograph.
  - Scan the correct barcoded specimen.

AT THE END OF THE IMAGING DAY:

1. Turn off main power switch to light box, turn off camera, and log out of SERNEC Portal.
2. Highlight all JPG images and right click. These can be easily organized by file extension (type) so that all JPG images are grouped together. Then click on "rotate counterclockwise" to rotate JPG images to portrait (upright orientation).
3. To save files from the laptop to the external hard drive: There are not enough ports on the laptop to have more than the barcode scanner and camera plugged in at one time. So, once imaging is complete, disconnect barcode scanner, and connect SeaGate external hard drive.
  - Double click the Computer icon on the desktop
  - Double click "STAR Herbarium"
  - Double click "STAR Images"
  - Copy and paste folder of the day's images from laptop into new external hard drive folder.
4. Record # of hours worked, # of specimens barcoded, and # of specimens digitized in excel file.
5. Shutdown computer, disconnect hard drive from computer, and reconnect barcode scanner to use next imaging day.

6. Use lint roller to clean photobox
7. Sweep floor around work station

AT END OF IMAGING WEEK:

#### IDROP Instructions

8. Open IDROP (icon found in start menu).
9. Log-on with your credentials.
10. Click on the button with the lock.
11. Click tree icon on top panel.
12. In the box that appears type `/iplant/home/shared/sernec`, then hit enter.
13. Click E drive in the left panel.
14. Click the "+" next to "STAR\_Herbarium" then "+" next to "STAR\_barcode\_images".
15. Click the imaging day folder(s) on the left panel and drag it to the STAR folder.
16. A box will appear. Click "yes" if files are going to the right location, as indicated by the text.
17. The computer can be left on overnight or until images are downloaded.

If computer scan starts:

- Click on the button marked "Pause Scan"
- Scan can be resumed at the end of the day