

Ariol Slide Scanner

Note: This instrument was purchased with an NIH Shared Instrumentation Grant # 1S10 OD014165-01A1. Please include this number in any published data generated on this equipment.

1. Turn on microscope components and computer

- Switch on the Leica CTR 6000, Proscan III and the X-cite if using fluorescence.
- Turn on computer.
- Log into Healthcare account. You may only use your healthcare account if you have been entered into the system (contact Kathy Walters).
- The center Ariol icon is the launcher composed of entry, review, scan and tissue microarray (TMA).

2. Entering the slides into the software

- Choose the entry icon (the blue book icon). Start with study. Create a new study by choosing the [study] icon or choose [open] to use an existing study. If creating new study, fill in title and click green check mark. Then choose or create a case in the same way. Lastly choose [slide] icon, fill in title and all the boxes in blue type:
- Title: (choose a unique title)
- **Assay:** choose the Gensight assay from the dropdown menu; to the right is a space for choosing a sub assay. Choose Multistain + desired magnification of the final image (i.e. Multistain 20x, Multistain 40x, etc.)
- **Slide Type:** TEST
- **Scan Mode:** Automatic
- **Bar Code:** (If using bar codes, place new bar code sticker on slide and scan the bar code. If you are not using bar codes, a unique number must be associated with this slide.) Up to 8 slide codes may be entered. Close ENTRY when finished.

3. Loading and scanning your slides

- Choose the [scan] icon. If you are not using fluorescence you will get an error message, click [ok].
- Choose [slide enumeration], [clear all]. If using bar codes, click on a position in the 8-slide stage and scan the corresponding slide.
- Move the joystick knob clockwise lowering stage.
- Load slides with the white part of slide towards you. Place the slides on the stage by pulling back the spring and loading close to the black post to the left of each spot. Check that the slide is snugged to the post. [ok].
- Scan slide.

4. Review

- After the first low mag scan the program will pause.
- Go to the [review] part of the software. You should not see an image.
- Open the study and click the [+] to reveal the case(s) from the left menu.
- Open the case and click the [+] to reveal the slide just scanned.

- Double click on the slide to reveal the node and open the image on the right side of the screen. The computer will have picked the areas where tissue was detected.
- Choose the black/pink arrow key to toggle from input to output. Any areas that should not be scanned at a higher mag should be highlighted and deleted with the large red X, or delete all by choosing the button above the red X and then the red X.
- You may then pick the areas of interest by choosing the black/pink arrow key and one of the other buttons.
- Draw ROIs onto the tissue image to outline areas to be scanned. When finished, click small x in the upper right hand corner to save and exit.

Note: Must close image after [review] to start [scan]

- Go back to scan and scan slide.

5. Exporting images

- After the image is scanned, open Ariol Scan Exporter software (from the desktop).
- [Open] the study from the list, making sure [show all] is selected, click [OK].
- Click on the case, then the slide and highlight the node.
- Choose [Output], [Scans] and type in the destination in the [Scans folder] area.
- Choose [Export Selected Scan(s)]. Despite the (s), the software will only let you do one image at a time unless you convert all the images in a case. Progress is marked by the blue bar in the Exporter screen. The screen will say “completed” when finished. This will take a few minutes, depending on the size of the file.
Your output file is now a .SCN virtual image.

6. Exporting images to other formats

- Open the Digital Slide Studio software (on the desktop)
- Choose [Input Files] and browse to desired .SCN file
- From the list, choose the desired final format.
- Go to [Output File] and type in filename and destination site [Save]
- [Compress]

This may also take time depending on the size of the file.

7. To Shut Down

- Remove slides by turning joystick clockwise to lower stage.
- When slides are removed, check CMRF scheduler to check if anyone is scheduled after you:
 - If yes:**
 - Close software and log out of computer
 - Record your time and scans on the logsheet.
 - If No:**
 - Close software
 - Turn off software and shut down computer
 - Switch off the Leica CTR 6000, Proscan III and the X-cite if using fluorescence
 - Record your time and scans on the logsheet.