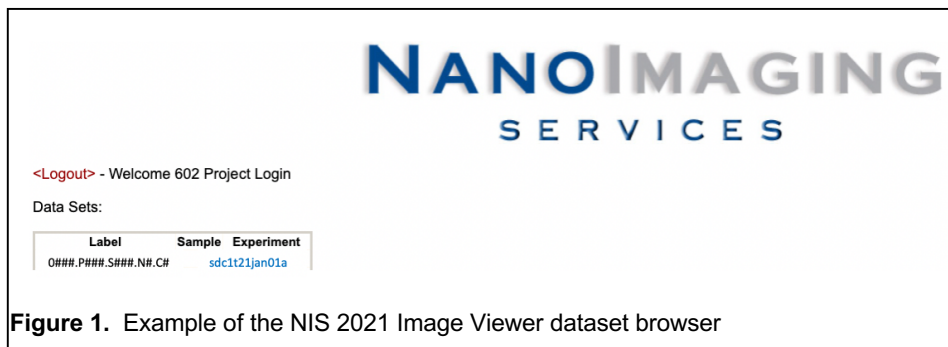





Instructions for using the NIS 2022 Image Viewer

- Access the standard web browser connected to the secure Nanolmaging Services client web site:
<https://login.nanoimagingervices.com/myamiweb>
- Login to the Image Viewer using the username and password provided by NIS.



- On the left hand side you will see a list of the available imaging sessions for your project with the label format '0###.P###.S###.N/V#.C#' and the corresponding session number under 'Experiment'.
 - 'Label' specifies the sample or grid name. Note in exceptional instances, there can be more than one session used to acquire images for the same sample.
 - 'Experiment' specifies the imaging session associated with each sample or grid. The name of an experiment will be in a format similar to 'sdc1t21jan01a' where 'sdc1t' is the microscope, '21' is the year, 'jan' is the month, '01' is the day of the month, and 'a' represents a specific session on that day.
 - The image session names shown under "Experiment" start with 'sdc1t' for image sessions acquired on the San Diego T12 microscope, 'sdc1g' for image sessions acquired on the San Diego Glacios microscope, 'sdc1k' for image sessions acquired on the San Diego Krios microscope, 'sdm1k' for image sessions acquired on the San Diego Miratech Krios microscope, and 'wbg1g' for image sessions acquired on the Woburn Glacios microscope
 - The session name for each sample or grid is listed in the corresponding NIS report.
- To view the imaging session, click the 'Experiment' of interest.
- A new window with the Image Viewer will open. The viewer provides a variety of options for examining the images as well as a tool for making length measurements.
- Directly above the image, a few data acquisition parameters are shown: Magnification, Defocus, Pixel size, Dose, Image Label, Date and Time stamp, and estimated Ice Thickness.
- On the web-based Image Viewer you can select from several lists (Figure 2):
 - The Experiment List where you can switch between different imaging sessions.
 - The Image List where you can browse and select images to view within an experiment.
 - The Image Type/Magnification List where you can select just a subset of the images to appear in the Image List. For example, you can select just a single magnification level. By default the list starts out with "all" types and magnifications shown. The specific image types available in the list are the magnification scales used in acquiring the images. Clients may want to look at the low magnification images for an overview of the sample distribution and the high magnification images for high

resolution details. Not all magnifications will be taken for each sample or project.

- The Microscope List where you can select the images according to the microscope they were collected on.
- You can browse through the images that were acquired during the experiment, (either all of them, or by a single selected magnification) as follows:
 - Click on an individual image in the Image List (see Figure 2). You will see this image show up in the Image Viewer window. Once you have clicked on an image number, the up and down arrows of your keyboard will select the next images.
 - Select the “play”  button located in the “Main View” bar on the upper right hand side of the viewer window (see Figure 2). This will automatically display the images in the list with a small delay or as fast as the bandwidth will allow. This is a good way to get an overview of the entire data set. You can stop this process by selecting the “stop”  button, and you can reverse the order of the images by selecting the “reverse” play  button.

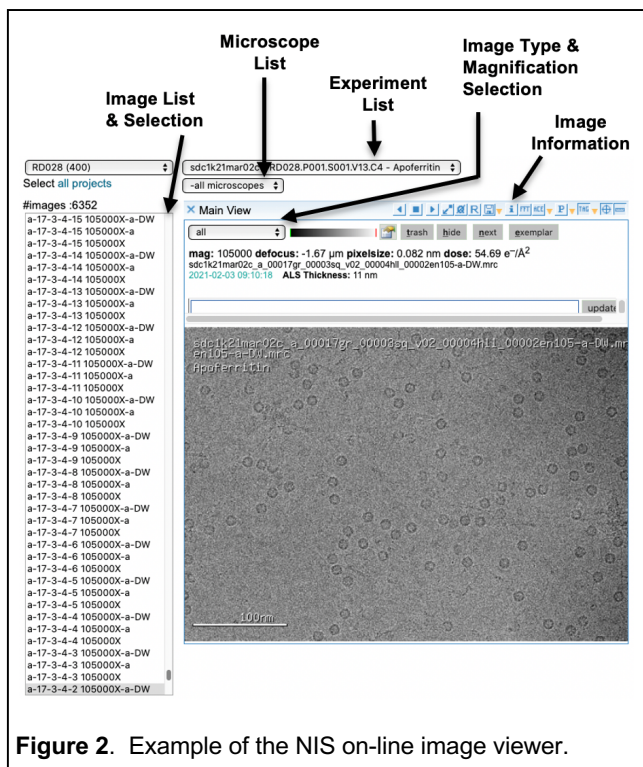



Figure 2. Example of the NIS on-line image viewer.

If you want to take a closer look at a particular image, left click anywhere on the image and a zoomed in view will appear in a new window. That window will include a small thumbnail of the entire image in the upper left hand corner that contains a green overlay box. The box can be dragged using the mouse to navigate on the zoomed image. The scroll bars can also be used. You can make some simple measurements on the zoomed image after selecting the “ruler”  icon. Once this has been selected every pair of left clicks on the zoomed image will put down a pair of green crosshairs, and the distance between the crosshairs will be displayed to the right of the ruler icon (see Figure 3).

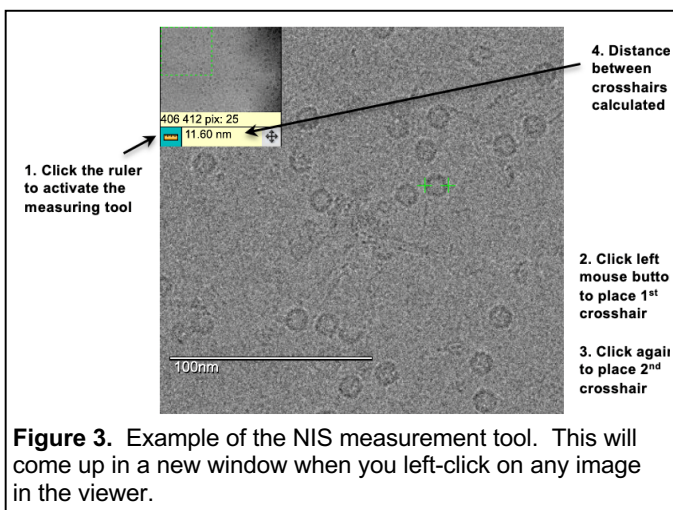

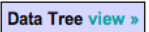
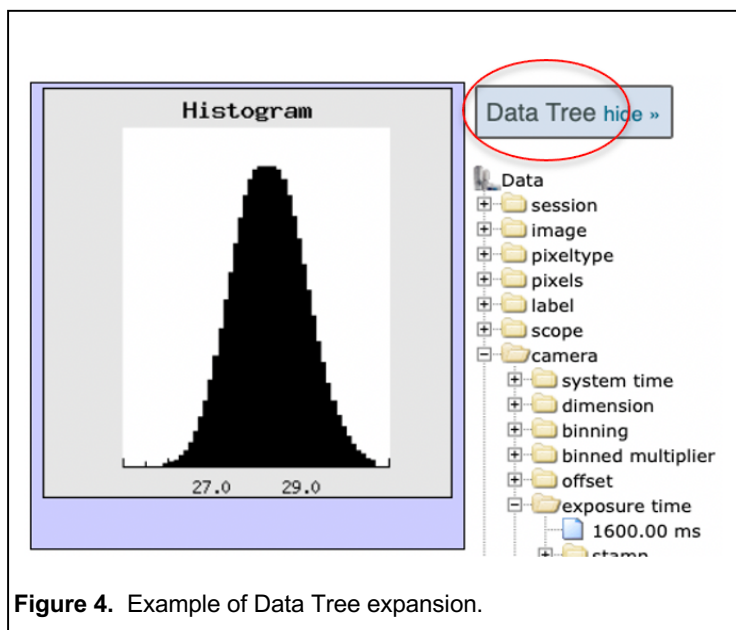



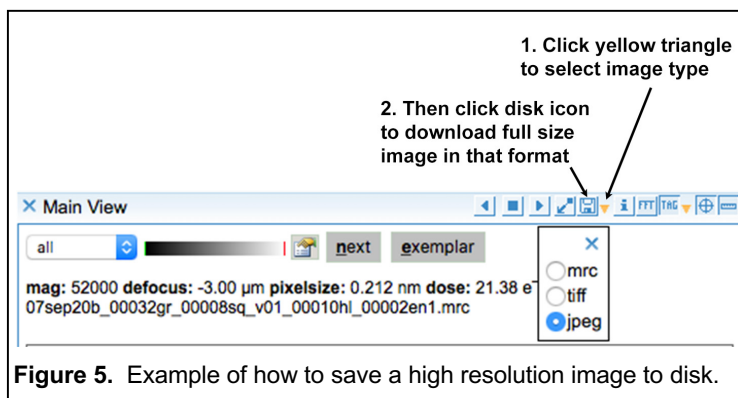


Figure 3. Example of the NIS measurement tool. This will come up in a new window when you left-click on any image in the viewer.

- There are a number of other features available on the Main View toolbar of the image viewer:
 - All of the parameters used to acquire the displayed image can be accessed by clicking on the  icon. This will pop up a new window with various summaries and links to parent or child images related to the current image. A full parameter set associated with the image can be accessed by selecting “view” on the  icon (see Figure 4).



- Selecting the  icon will display or hide targets on the lower magnification images that show where the higher magnification images were acquired.
- Selecting the  icon will display or hide the scale bar.
- If you want to save any particular image to your disk you can do this by first selecting the desired image type (mrc, tiff, or jpeg) by clicking on the yellow triangle next to the disk icon  and then clicking the disk icon itself to download the image to your computer (Figure 5). Note these high



resolution images will not have the scale bar, labels or targets displayed. The image displayed on the image viewer is reduced in size but contains all the labels and targets. The image in the viewer can also be saved to disk by right clicking on the image and selecting "Save Image As..."

- To log out of the image viewer, click 'Logout' on the top left corner of the window.
- Please feel free to contact us with any questions or issues you have regarding the image viewer.