Tiling, Tiled Z stacks, Multi-position Single and Fixed Z-stack Imaging using the Navigator

Creating a Preview

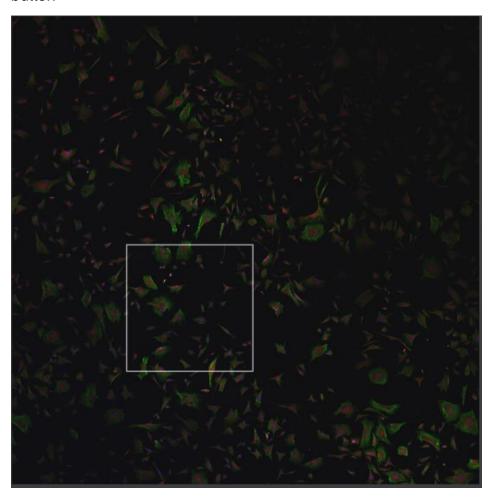
Select the Navigator from the Acquisition tab



Using a lower power objective (x10 or x20) select "Fast Live" and focus the sample

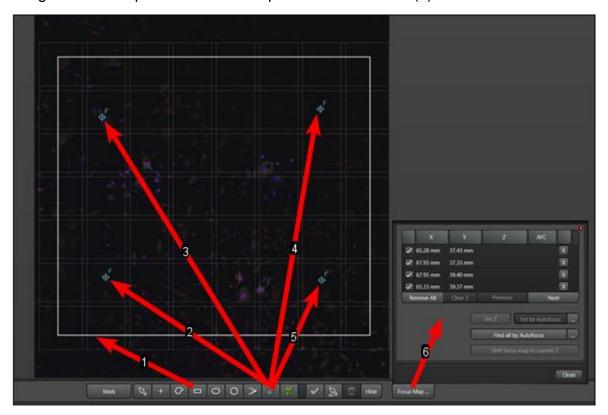


Preview the sample using either the "Spiral" or pre-defined region and the "Preview" button



Tiling with Focus Map

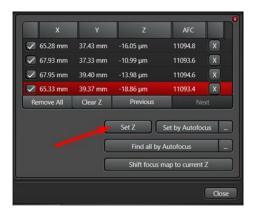
Define a tile region (1) and add focus points (eg 2-5) using the toolbar under the image window. Open the "Focus Map" definition window (6)



Select objective for capture

Run "Fast Live" and in the "Focus Map" window, double click on each focus point in turn, adjust the focus and then click the "Set Z" button

Set the required image capture settings (eg format, averaging etc)



Run "Start" to capture the tile

Two image entries are created in the "Projects" window: the individual raw data images and the final merged image



<u>Tiled Z-Stack using the Focus Map (using same stack for all regions)</u>

Create a preview, defined region and focus map as above

Select objective for capture

Open the "Z-Stack" window (left hand side of Navigator)

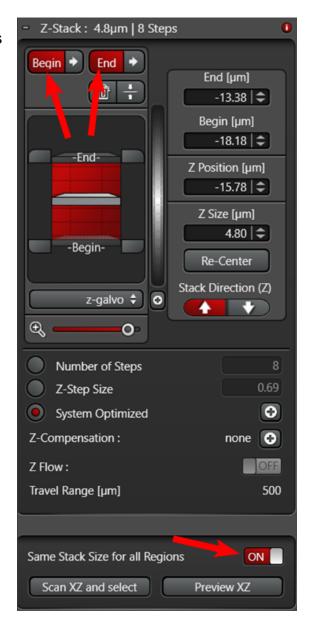
Define the stack "Begin" and "End" points

Set the image stack interval and other image settings (format etc)

Optional: use the "Re-Center" button to redefine the centre of the stack if required

Run "Start" to capture the tiled z-stack

NB. The merged image may contain more slices than were captured as it tries to merge the best alignment for each stack



Multi-Position Single Images

Create a preview as above using the Navigator



Select objective for capture

Run "Fast Live" and select a position by double clicking on the preview image.

Adjust the focus to get the desired focal plane then click on "Mark" button below the preview image to add it to the task list. NB. The focus can be updated if necessary, by double clicking on the position in the task list, refocusing followed by selecting Redefine Z.

Set the required image capture settings (eg format, averaging etc)



Run "Start" to capture

The images are stored in the project window as a list of positions

Auto naming can be defend at the bottom of the "Project" window



Multi-Position Fixed Z-Stack Images

Create a preview, and add positions as above

Open the "Z-Stack" window (left hand side of Navigator)

Define the stack "Begin" and "End" points

Set the image stack interval and other image settings (format etc)

Run "Start" to capture the z-stack images