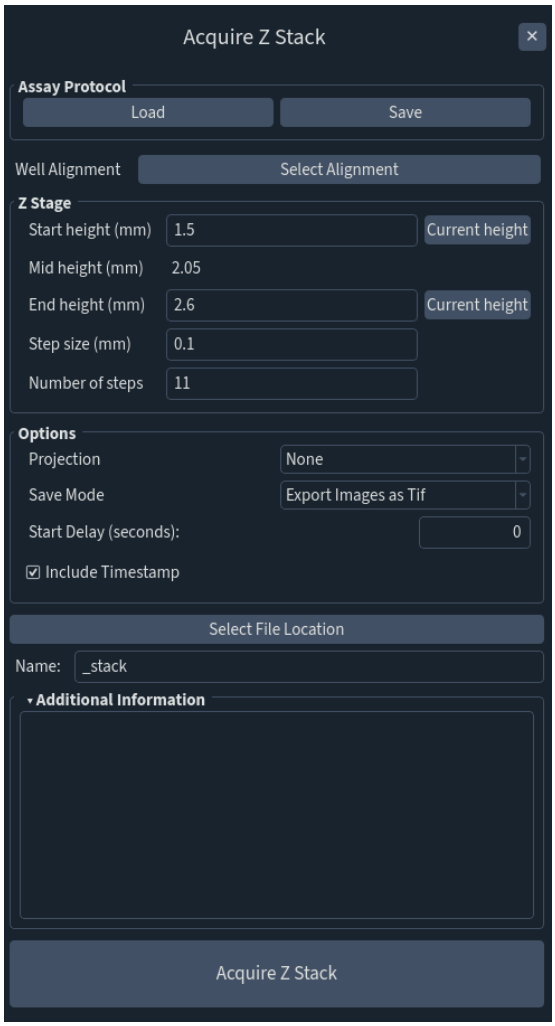
Acquire a Z Stack

A z-stack is a series of images taken at different focal planes along the z-axis, capturing a 3D representation of a specimen. It's commonly used in microscopy to reconstruct detailed structures or features within samples. With the MCA+M, z-stacks can be easily acquired by automating movement of the z-stage alongside image acquisition.



Step	Function
1	**Open the MCAM software**.
2	**Go to Assays > Acquire Z Stack**.
3	**Enter a “Start height” and “End height”** representing z-stage positions where

	the z-stack will start and stop. Sometimes it works well to find an optimal focal plane and choose this as the “Mid height” and then set the Start and End a millimeter below and above respectively.
4	**Enter either “Step size” or “Number of Steps”** to determine the z-axis resolution. The second of these two parameters will update automatically.
5	**Select other options as needed** regarding projection type, delays, and save mode. Please see the MCAM™ User Manual for more information regarding these options.
6	**Select a File Location.** Always select a folder on the “MCAM_data” drive to store data from MCAM acquisitions. The “File Location” will be displayed in the panel once defined.
7	**Enter a Folder Name** for the z-stack. A timestamp will automatically be appended to the chosen folder name.
8	**Adjust imaging settings** in the left side panel to optimize image quality.
9	**Click Acquire Z Stack** to initiate the acquisition.