Extraction from Volume Graphics

1. Create ROI on the surface of interesting
2. File->Export Multiple/Aligned Volumes
   1. Select reasonable scale
   2. Choose appropriate folder
   3. Naming convention: Hantel14-16bit-u-0.00277-<sliceNum>.tif
      1. Everything is separated by ‘-‘
         1. Probe,
         2. Bits used
         3. Unsigned or signed
         4. Scale
         5. sliceNum will be generated by VGStudio

Fiji Routine (Getting the profile)

1. Process->Batch->Macro
2. Run THIS MACRO
3. Once the process is finished, manually go through the images and delete any with porous cavities. The surface roughness script will try its best to analyze and disregard pictures that aren’t suitable but doing it manually will be faster

Python Script:

1. Find the longest contour in image
2. Finds the leftmost pixel in the image
3. Recreate contour such that duplicate points are removed
   1. Currently, if the next closes vertex to the current point is more than 5 pixels away, we stop recreating the contour and break out of the routine
4. If the new contour is about 95 percent the contour (unique vertices only), compute the roughness

Image requirements: