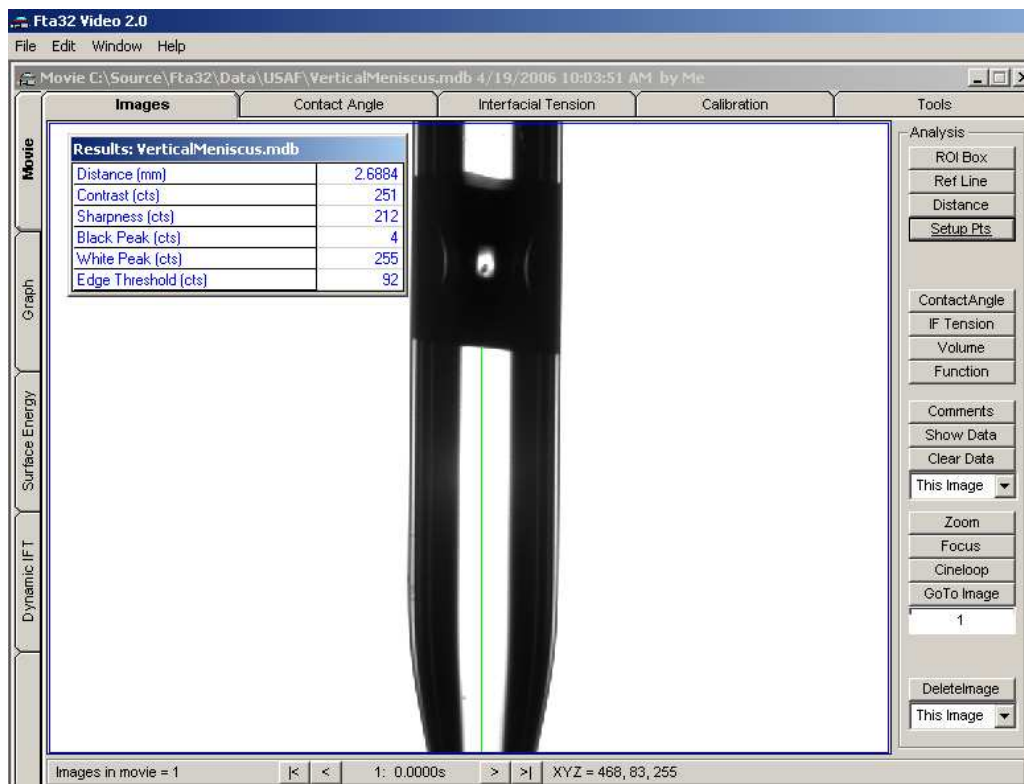


Meniscus Measurement

April 24, 2006

Fta32 Video software includes a capillary meniscus measurement with Build 245. This feature will measure the location of the center of the meniscus edge in a glass (transparent) capillary tube. The image shows a typical setup and measurement. The green line shows the distance measured. Make sure your magnification is calibrated. Distance is reported on the Results form and may be graphed or otherwise handled like any other Fta32 measurement value.

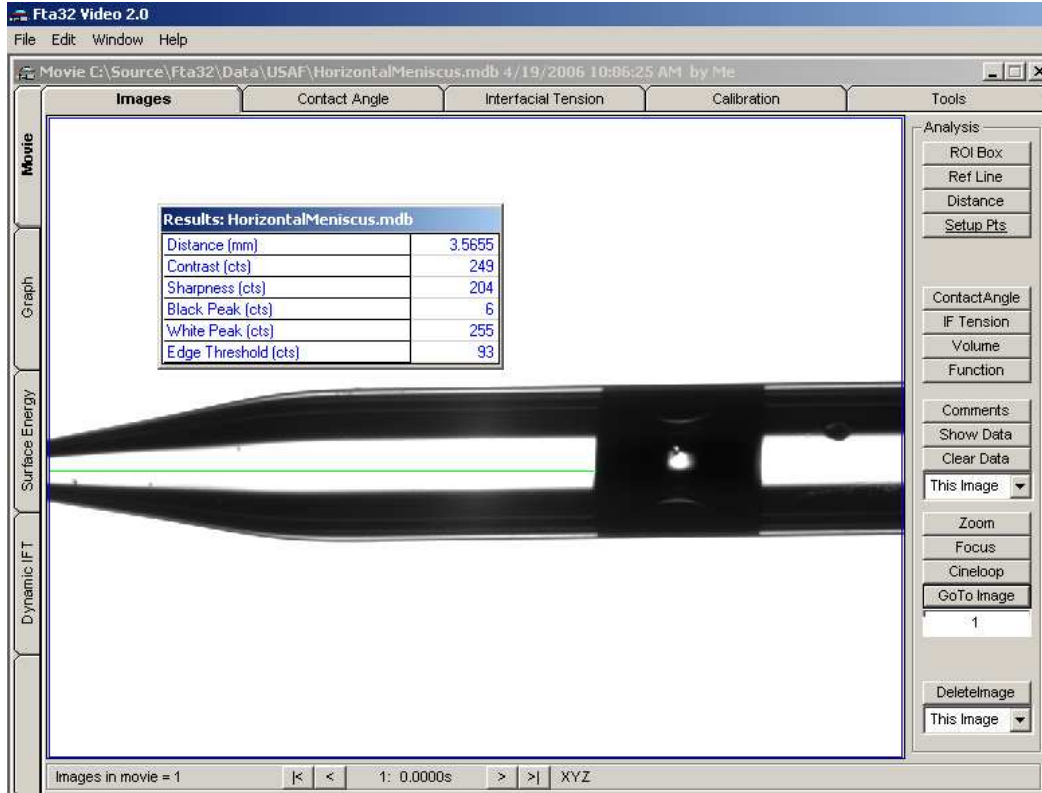


1mm outside diameter capillary with meniscus, measured from bottom up.

The assumptions are

- the image is backlit (an image illuminated from the front will have low contrast)
- the capillary is either vertical or horizontal
- the distance is measured from the image edge
- you choose which image edge to measure from
- you may use the ROI (region of interest) function to set the effective edge of the image

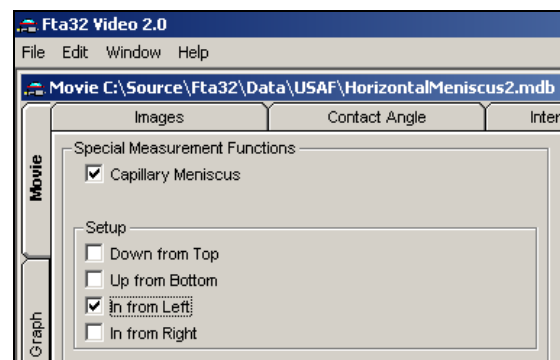
The following image is that of a horizontal capillary.



Horizontal measurement from left on 1mm OD capillary.

The algorithm searches for a capillary tube, defined by dark edges, along the image edge you selected as the starting point. From the center of that capillary, it searches for the first dark edge in the direction you chose. The search uses Fta32 sub-pixel resolution, so you can resolve a micron in an image with good contrast.

Setup on Movie | Tools tab, then click the *Function* command on the Movie | Images tab (right side), as shown above. The *Function* command will repeat on all images in a Movie using *Cineloop* or the > button, like other Fta32 measurements.



File: MeniscusMeasurement.doc