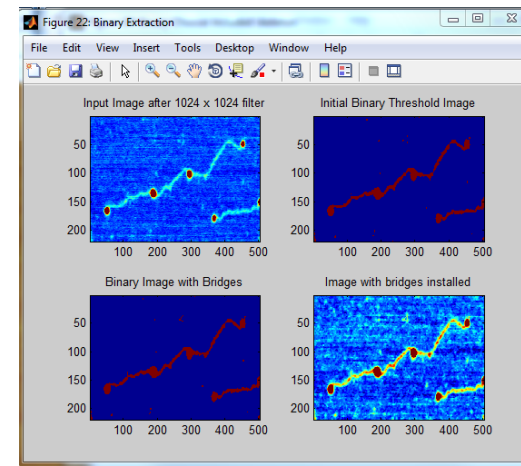
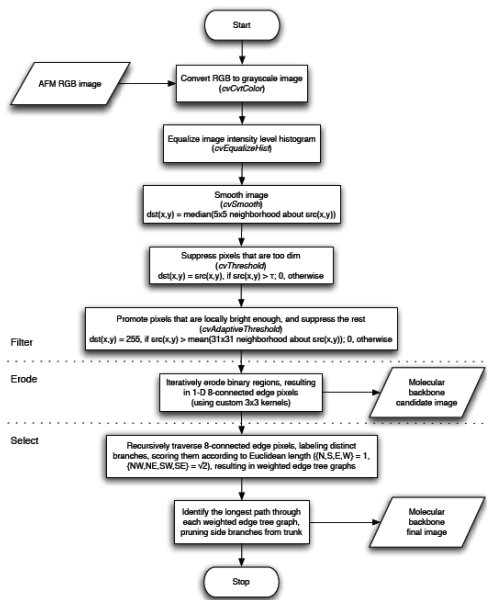
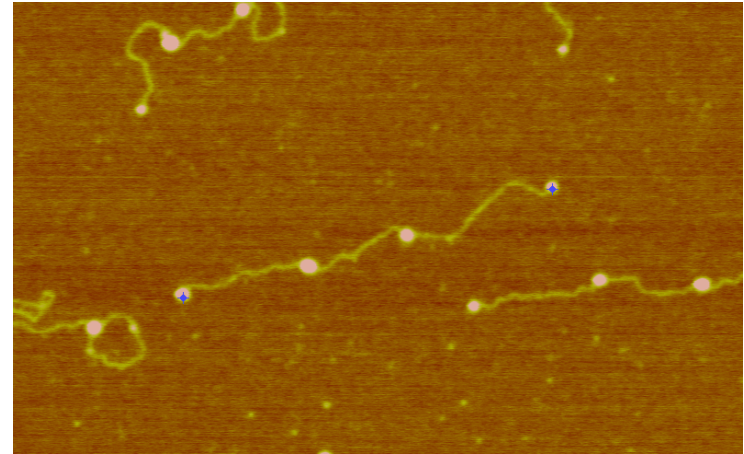
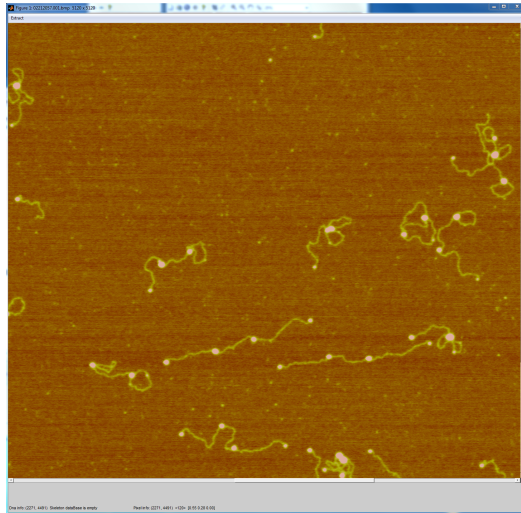
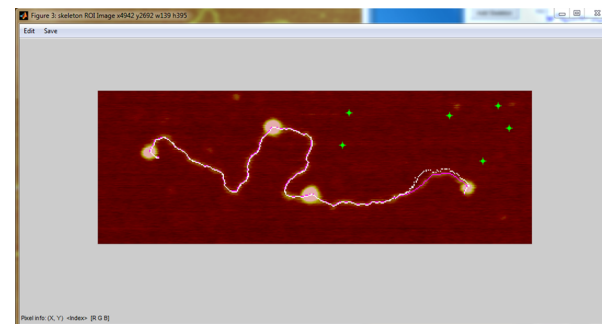
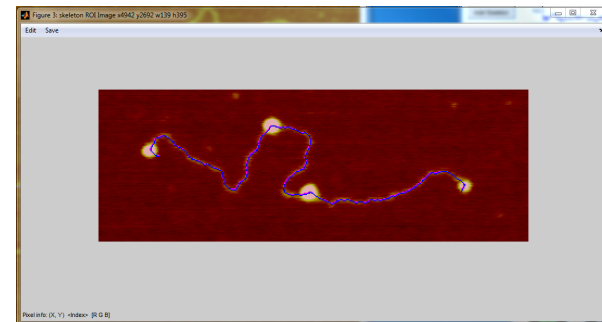
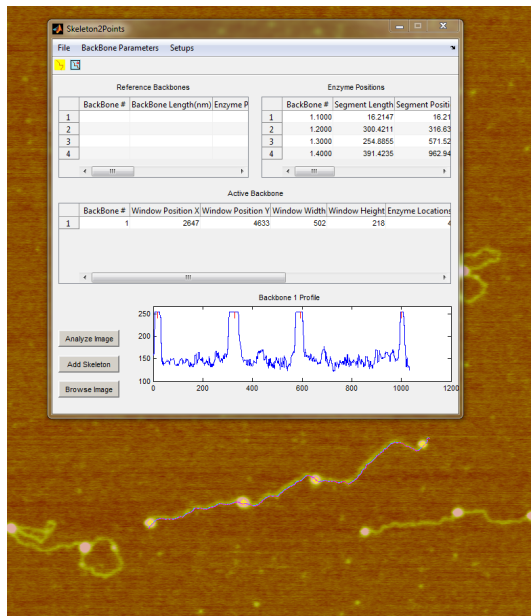
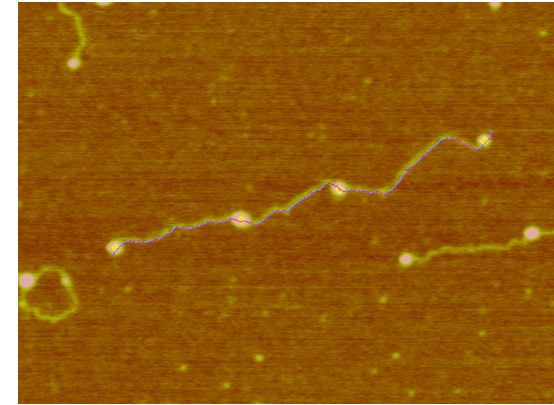
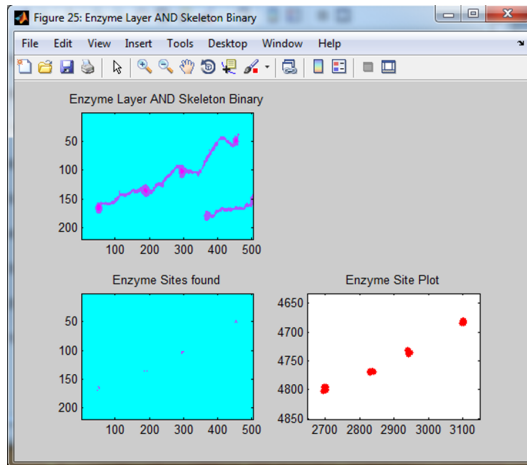
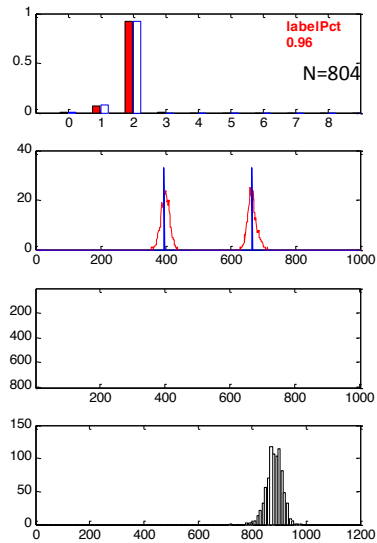
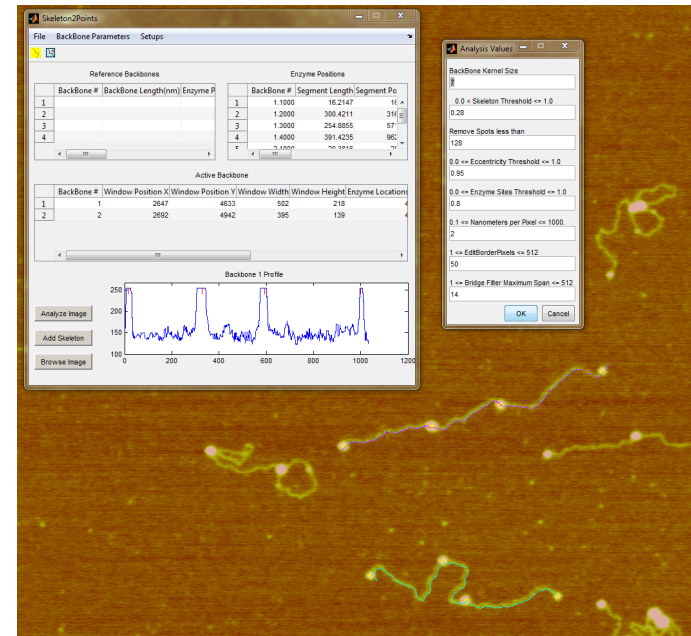
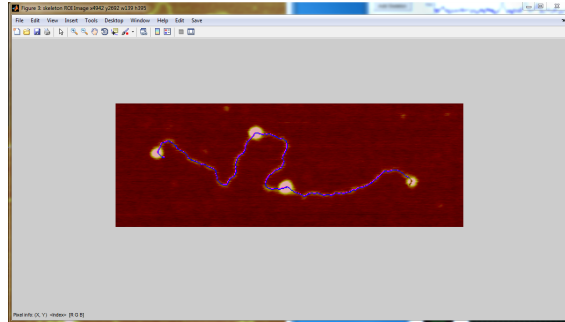
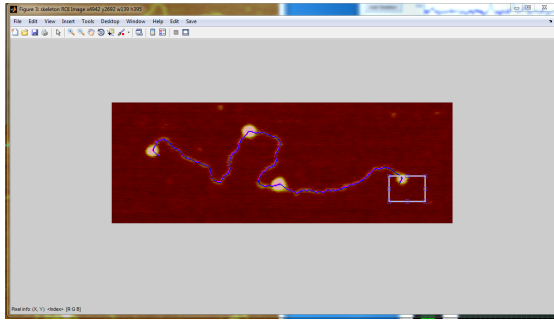


AFMExplorer







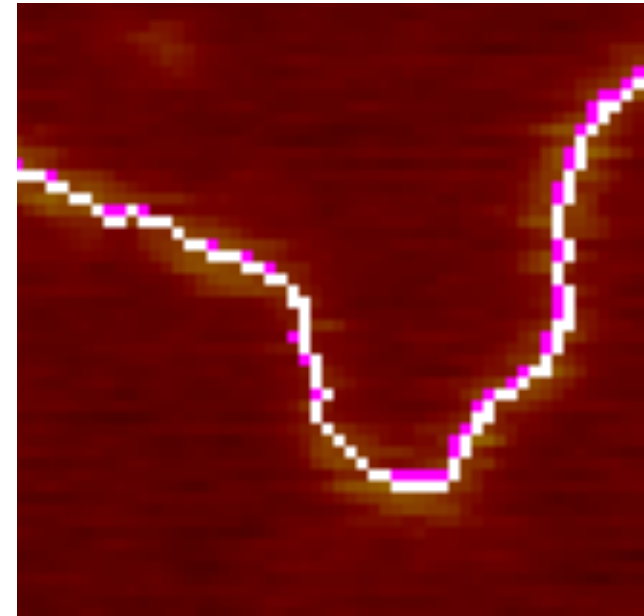
pZT19R Pcil BsmAI 3-2-2011 RK

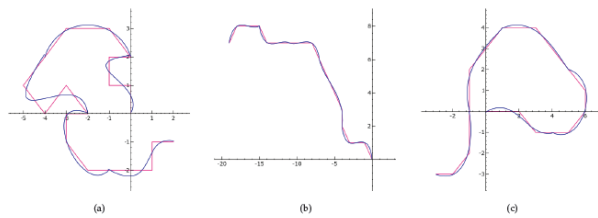
Manual backbones:

measured (CV)	actual	delta
40.0% (1.40%)	39.6%	0.4%
66.7% (1.42%)	66.7%	0.0%

AFMExplorer:

measured (CV)	actual	delta
39.6% (1.36%)	39.6%	0.0%
66.7% (1.44%)	66.7%	0.0%

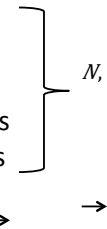




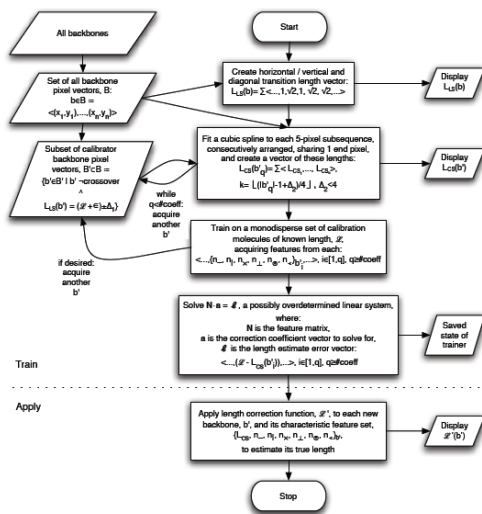
spline (AFME)

Systematic error model:

1. # Horizontal pixel pairs
2. # Vertical pixel pairs
3. # Diagonal pixel pairs
4. # Perpendicular pixel triplets
5. Average backbone thickness



\vec{l} = error



Contour length, nm

	(n=100)		
	<u>mol. 1</u>	<u>mol. 2</u>	<u>mol. 3</u>
True	139.6	351.8	453.1
Cubic Spline	143.9	356.3	462.0
CORR	138.6	347.3	452.0
Error %	(0.7%)	(1.2%)	(0.2%)
nm	1.0	4.5	1.1

2 nm pixels \rightarrow yields \pm sub-pixel resolution