

# Contour-Based Joint Clustering of Multiple Segmentations

## Supplementary Material

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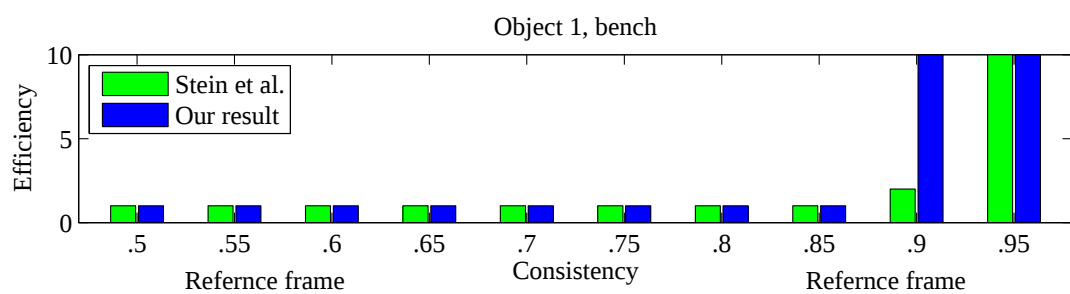
<sup>2</sup>Raytheon BBN Technologies

Below we provide for each of the 38 objects from the “Video Dataset for Occlusion/Object Boundary Detection” of Stein and Hebert [13] the results produced by our Joint Clustering algorithm. We show for each object a bar chart comparing our “efficiency” as a function of “consistency” results to those reported in the supplementary material of [14] (see Section 5.2 for explanations of the evaluation method.) Along with the chart we provide the input image the ground truth and the segmentations produced by our algorithm. We use a warm color-map to present the segments composing the object and cold colors for the background segments.

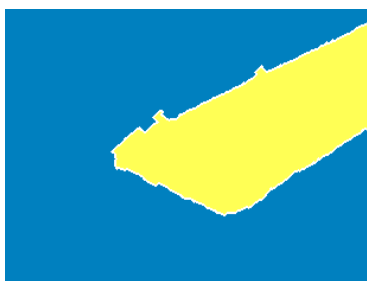
The detailed results from the supplementary material of [14] can also be found in Appendix C. of Stein’s doctoral dissertation<sup>1</sup> by following [this link](#).

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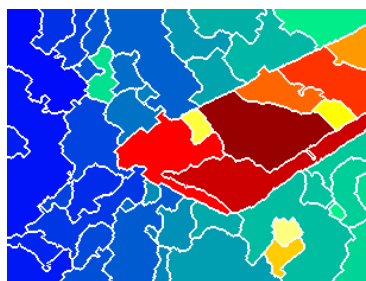
<sup>1</sup>Andrew Stein, *Occlusion Boundaries: Low-Level Detection to High-Level Reasoning*, tech. report CMU-RI-TR-08-06, Robotics Institute, Carnegie Mellon University, May, 2008. [http://www.ri.cmu.edu/publication\\_view.html?pub\\_id=6063](http://www.ri.cmu.edu/publication_view.html?pub_id=6063).

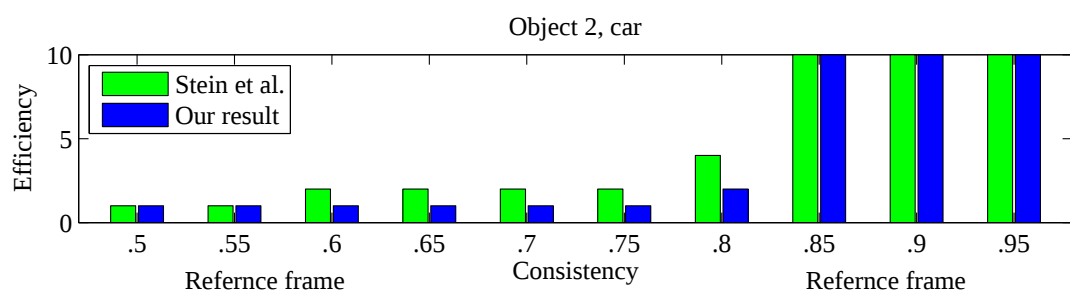


Consistency: 0.874 Efficiecnny: 1

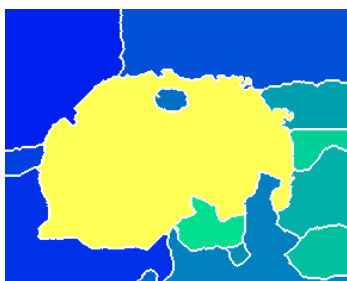


Consistency: 0.915 Efficiecnny: 10



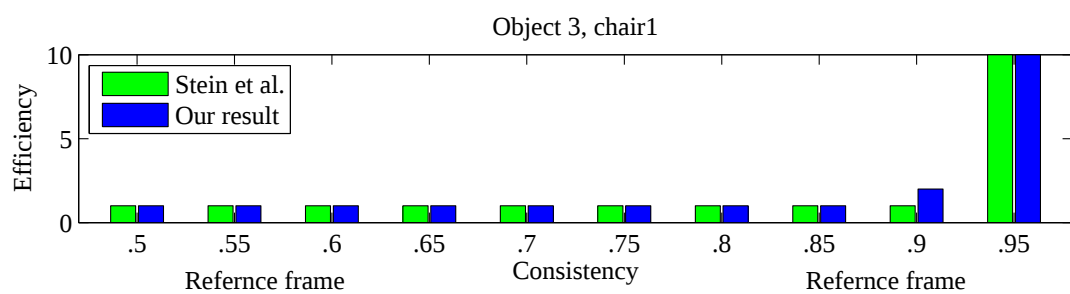


Consistency: 0.794 Efficiecnyn: 1



Consistency: 0.811 Efficiecnyn: 2



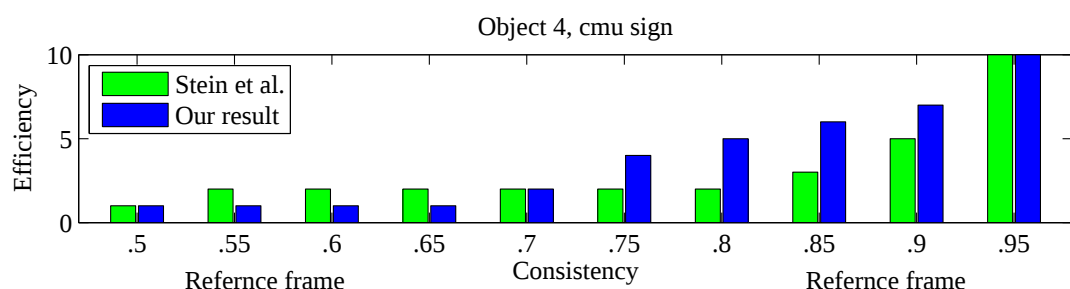


Consistency: 0.900 Efficiecn: 1

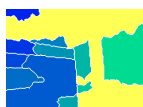


Consistency: 0.915 Efficiecn: 2

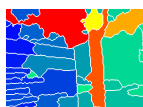




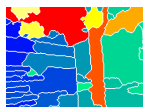
Consistency: 0.656 Efficiency: 1



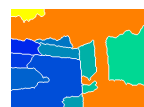
Consistency: 0.786 Efficiency: 4



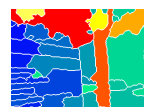
Consistency: 0.882 Efficiency: 6



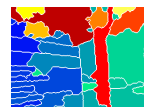
Consistency: 0.701 Efficiency: 2

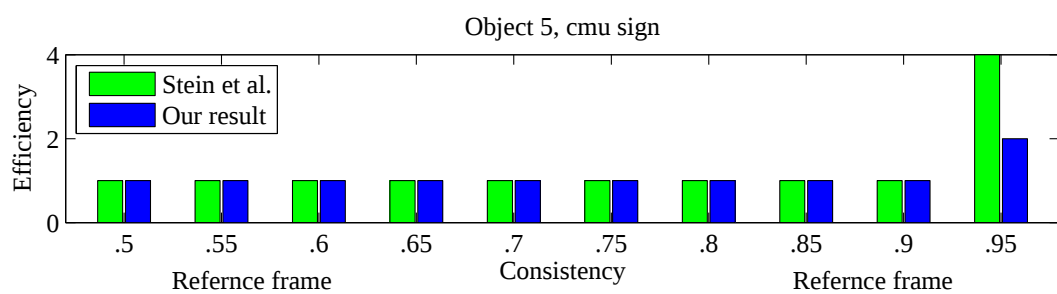


Consistency: 0.835 Efficiency: 5



Consistency: 0.909 Efficiency: 7



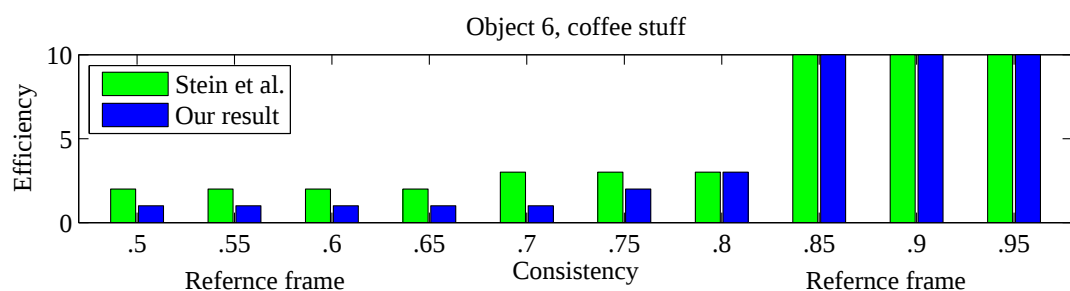


Consistency: 0.929 Efficiency: 1

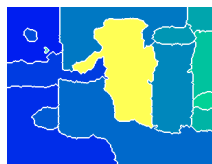


Consistency: 0.988 Efficiency: 2

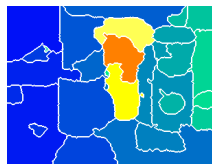




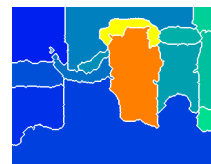
Consistency: 0.734 Efficiency: 1

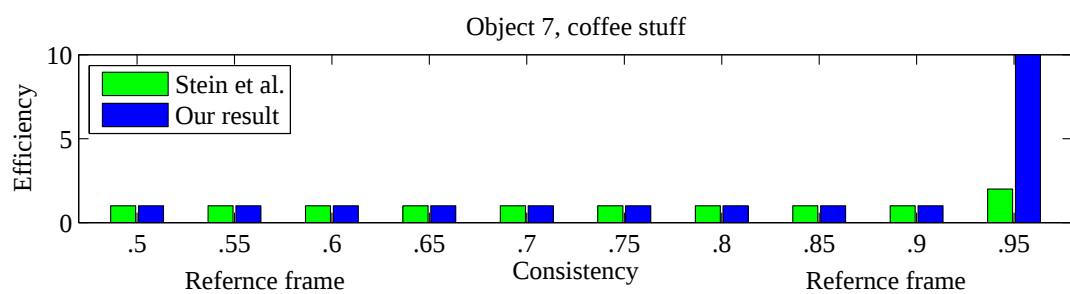


Consistency: 0.813 Efficiency: 3

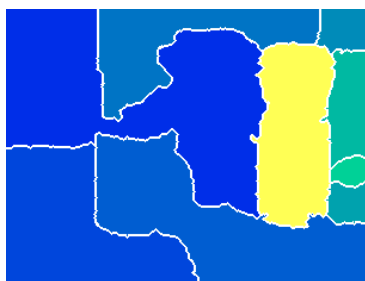


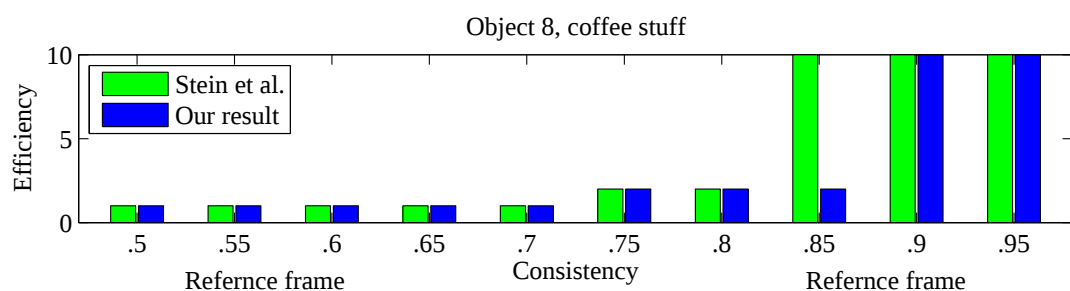
Consistency: 0.767 Efficiency: 2



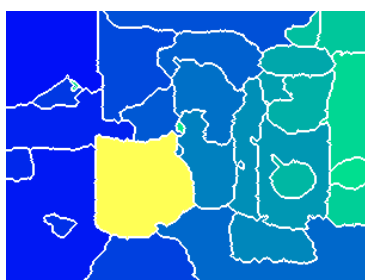


Consistency: 0.937 Efficiency: 1

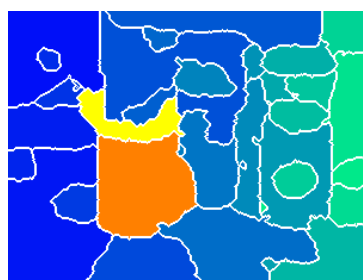


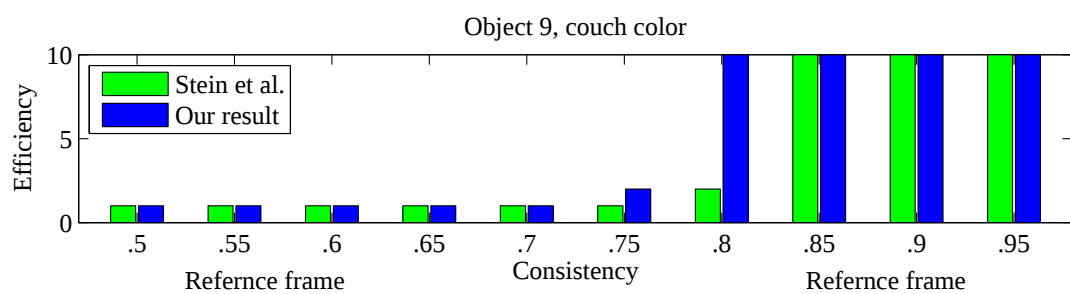


Consistency: 0.713 Efficiency: 1

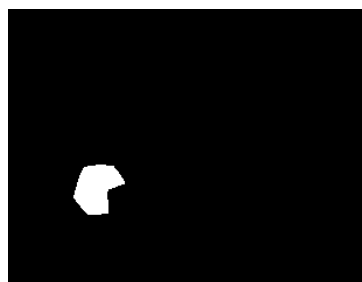
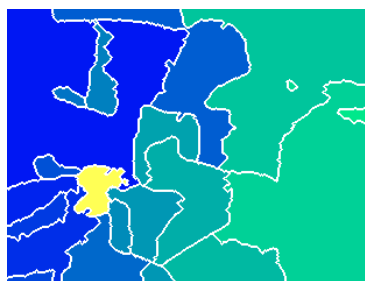


Consistency: 0.858 Efficiency: 2

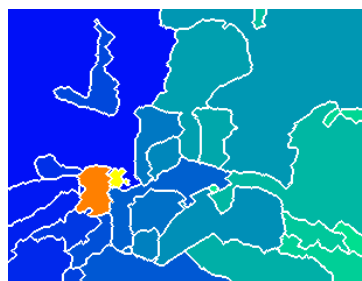


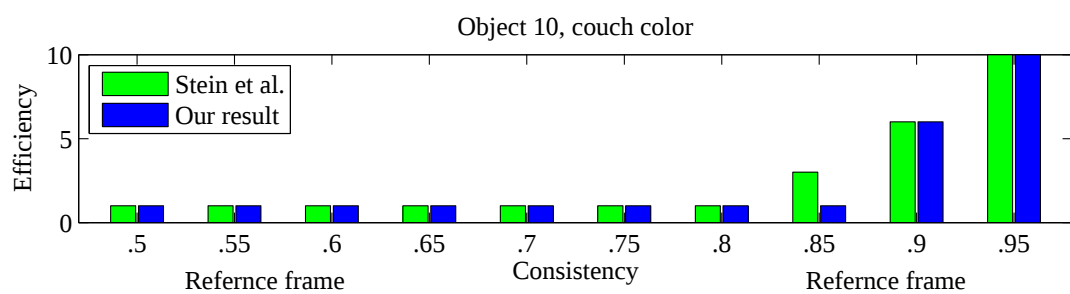


Consistency: 0.738 Efficiecnyn: 1

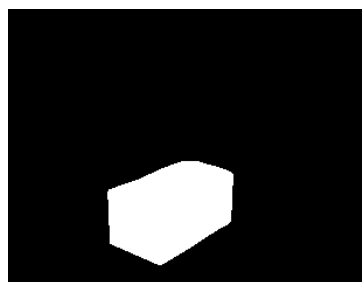
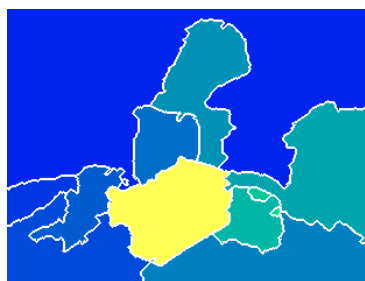


Consistency: 0.762 Efficiecnyn: 2

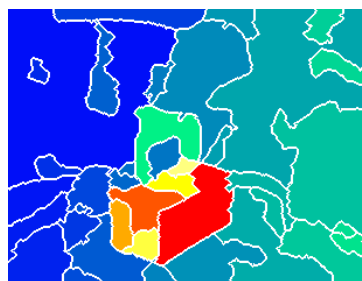


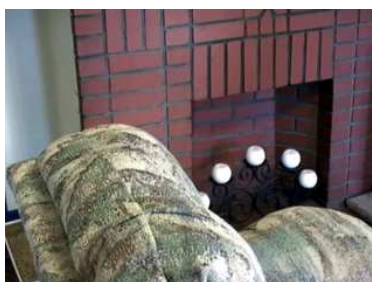
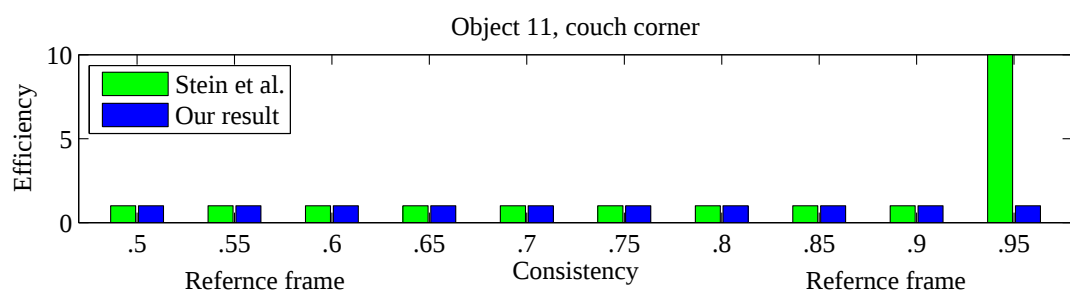


Consistency: 0.868 Efficiecn: 1



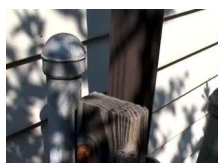
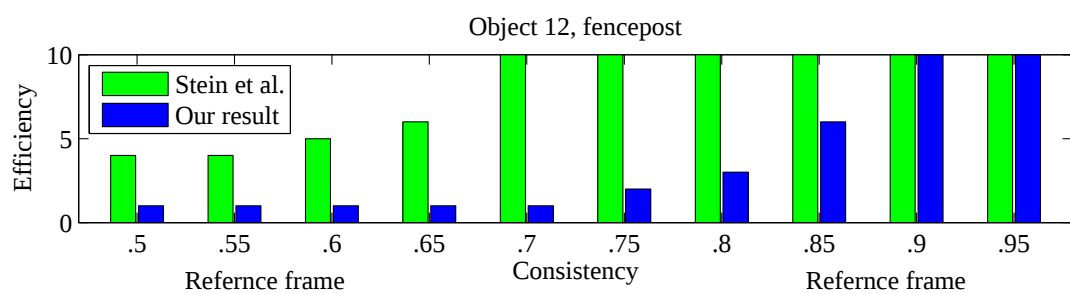
Consistency: 0.911 Efficiecn: 6





Consistency: 0.978 Efficiency: 1





Consistency: 0.738 Efficiency: 1



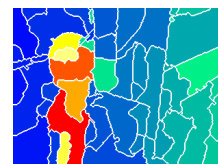
Consistency: 0.835 Efficiency: 3

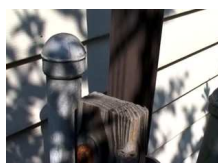
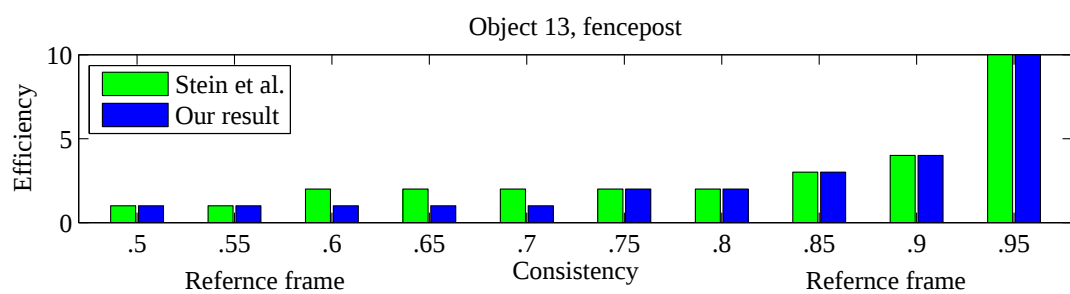


Consistency: 0.793 Efficiency: 2



Consistency: 0.855 Efficiency: 6





Consistency: 0.744 Efficiency: 1



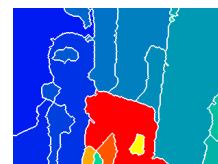
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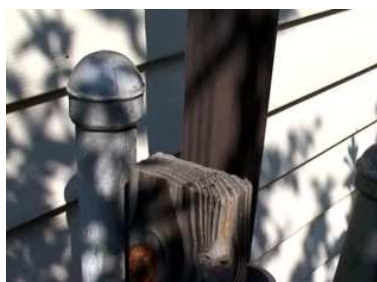
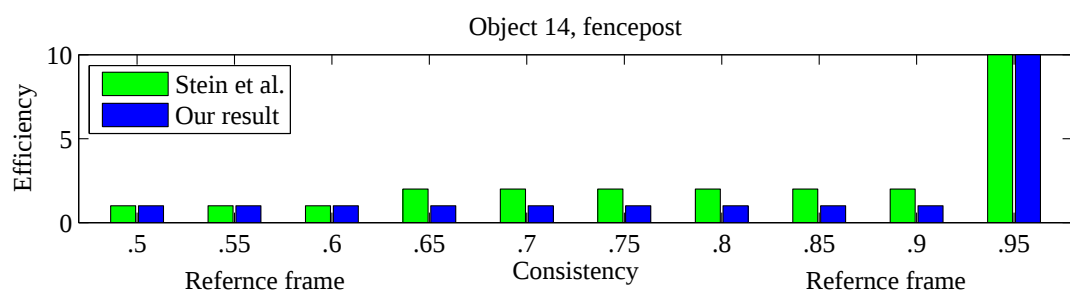


Consistency: 0.826 Efficiency: 2



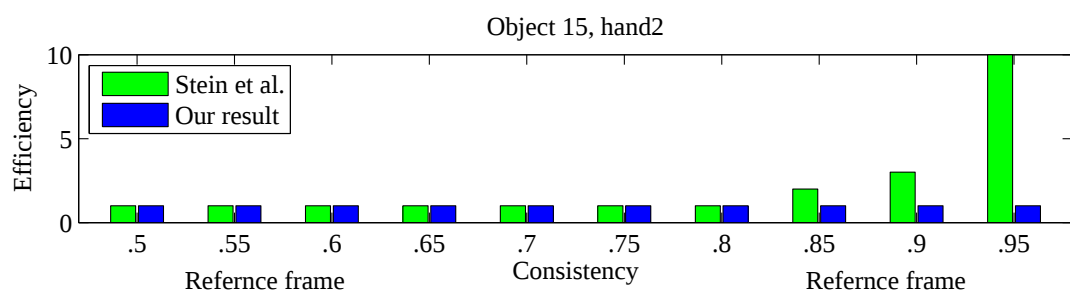
Consistency: 0.906 Efficiency: 4





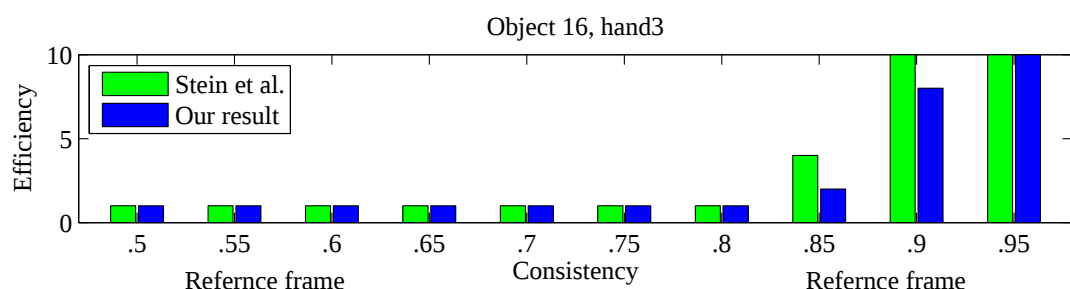
Consistency: 0.925 Efficiency: 1





Consistency: 0.952 Efficiency: 1





Consistency: 0.807 Efficiency: 1

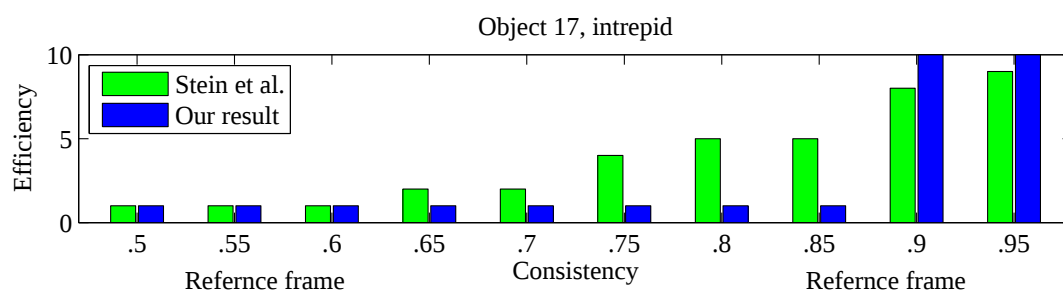


Consistency: 0.902 Efficiency: 8



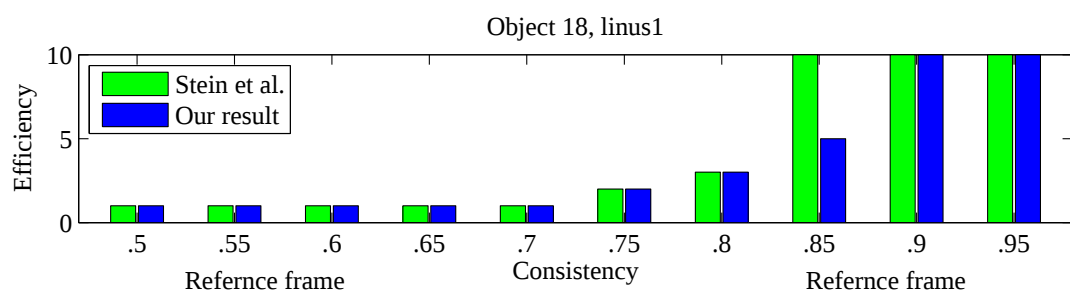
Consistency: 0.854 Efficiency: 2



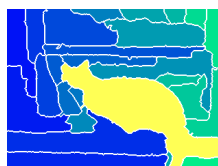


Consistency: 0.857 Efficiency: 1

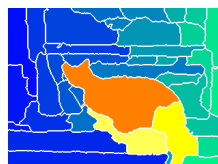




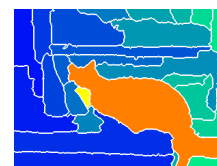
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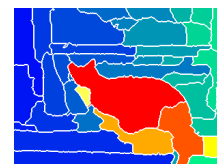
Consistency: 0.815 Efficiency: 3

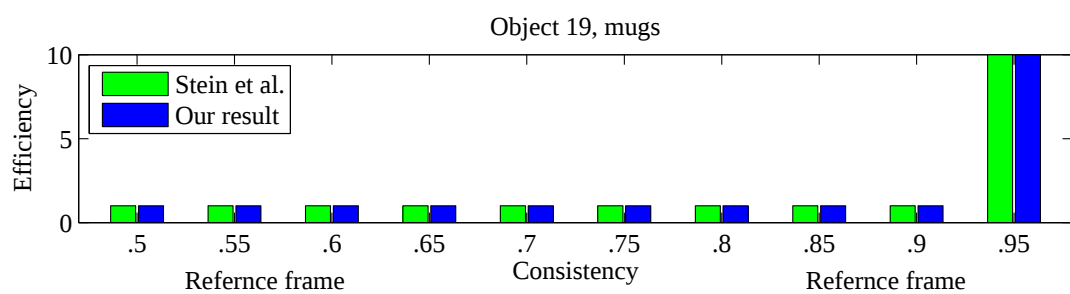


Consistency: 0.771 Efficiency: 2

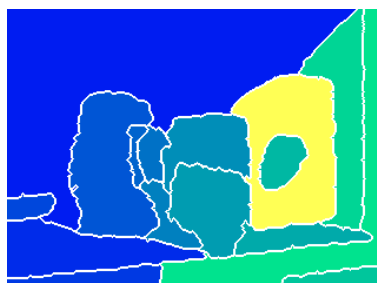


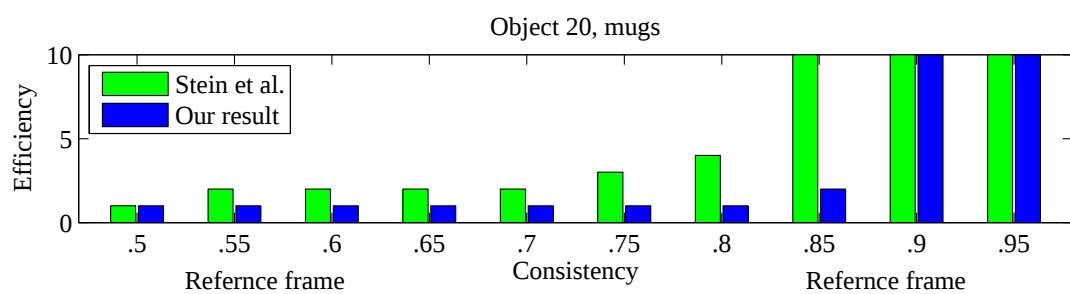
Consistency: 0.859 Efficiency: 5



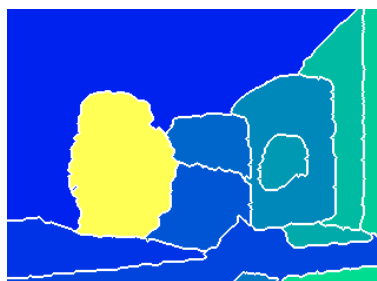


Consistency: 0.905 Efficiecnny: 1

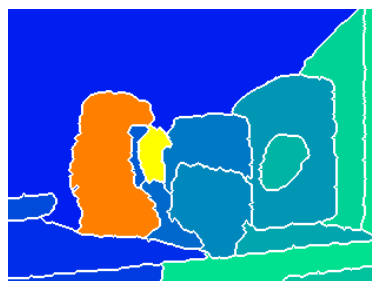


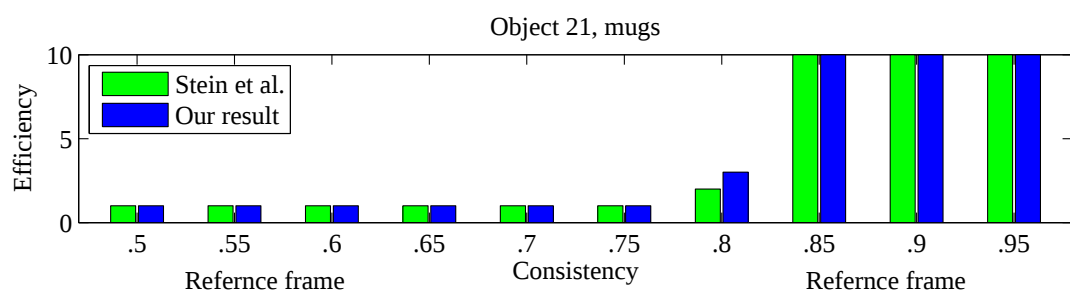


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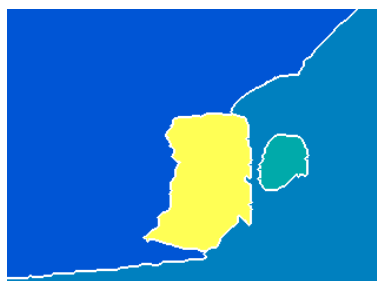


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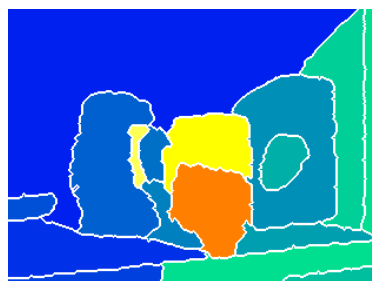


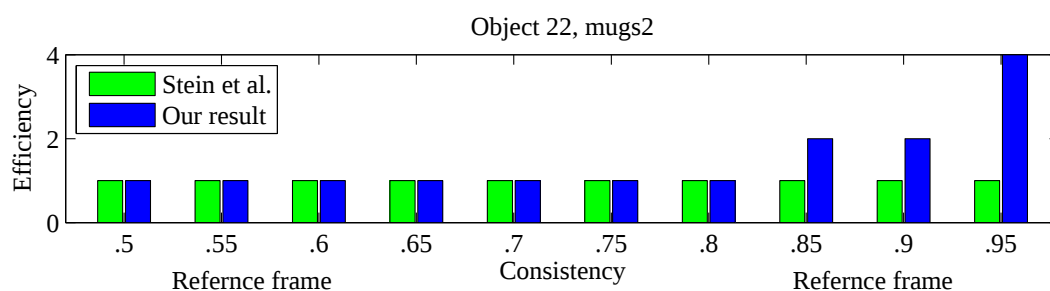


Consistency: 0.755 Efficiecnny: 1

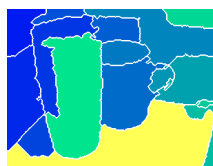


Consistency: 0.815 Efficiecnny: 3

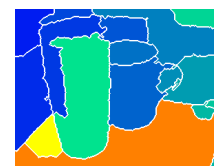




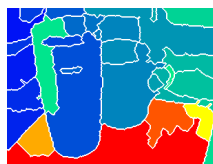
Consistency: 0.834 Efficiency: 1

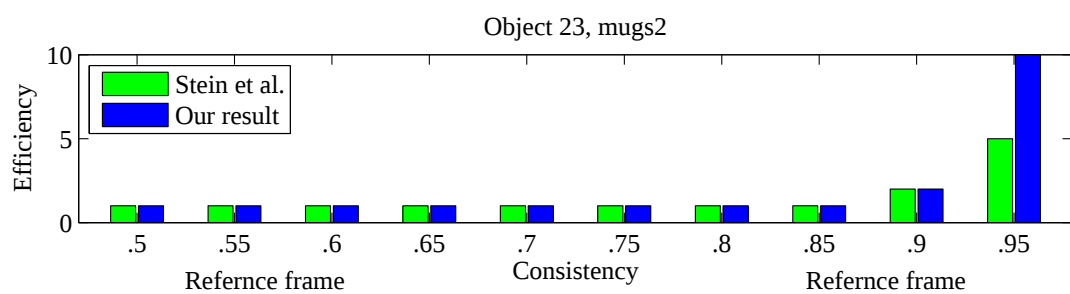


Consistency: 0.940 Efficiency: 2

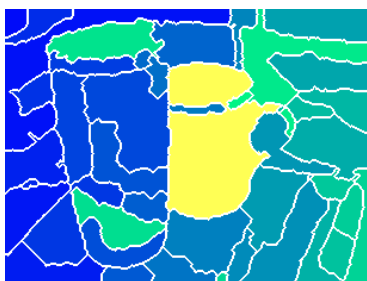


Consistency: 0.969 Efficiency: 4

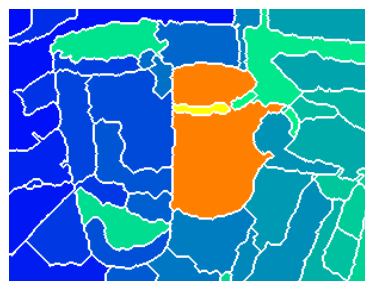


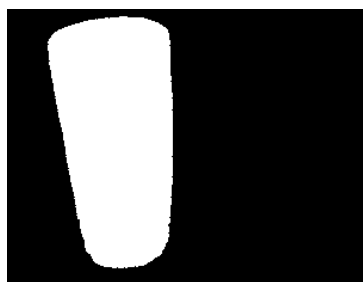
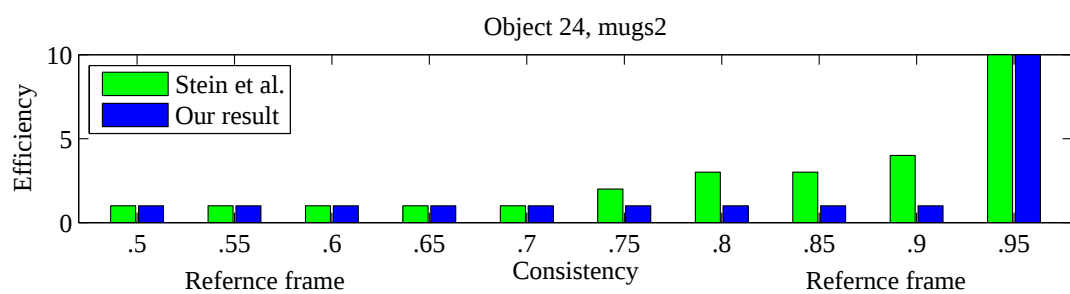


Consistency: 0.871 Efficiecnny: 1

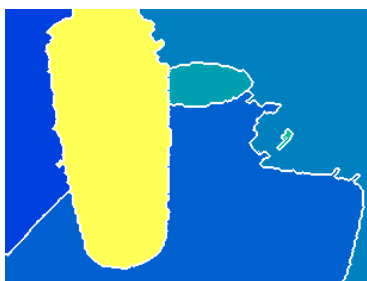


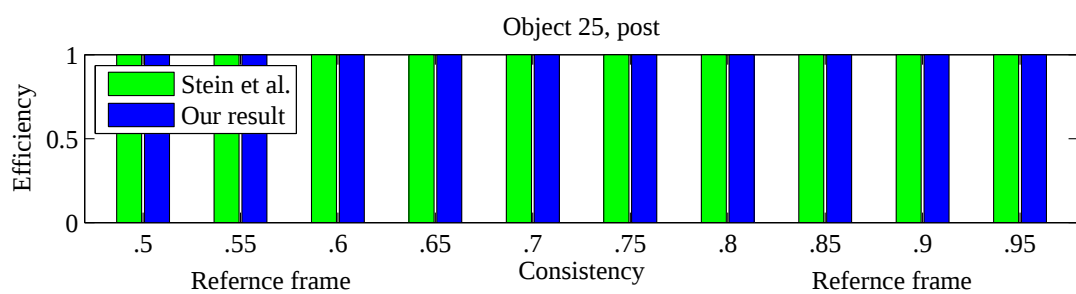
Consistency: 0.905 Efficiecnny: 2





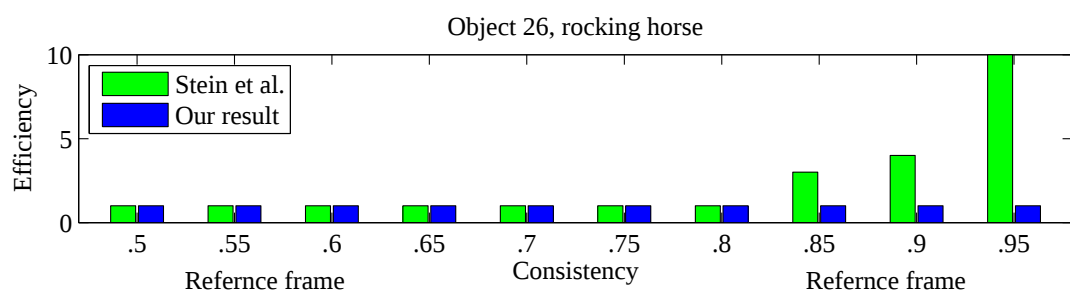
Consistency: 0.928 Efficieney: 1





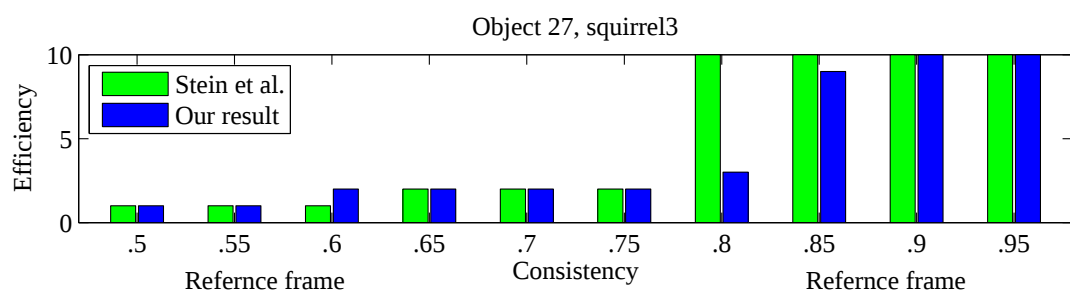
Consistency: 0.951 Efficiency: 1





Consistency: 0.952 Efficiecny: 1

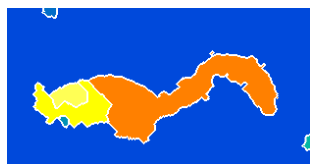




Consistency: 0.571 Efficiency: 1



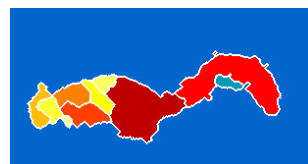
Consistency: 0.822 Efficiency: 3

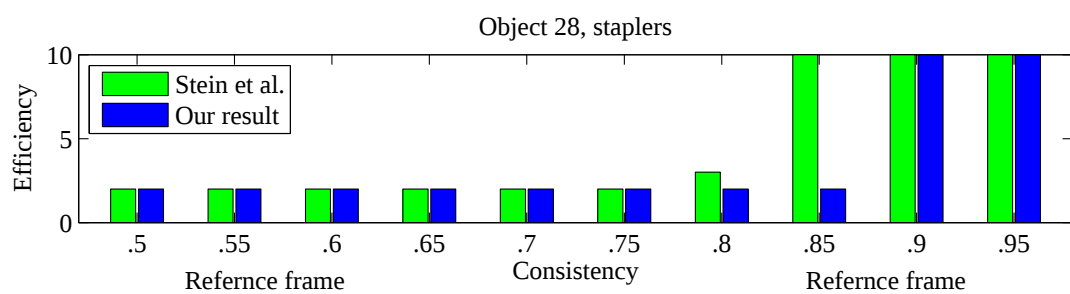


Consistency: 0.796 Efficiency: 2



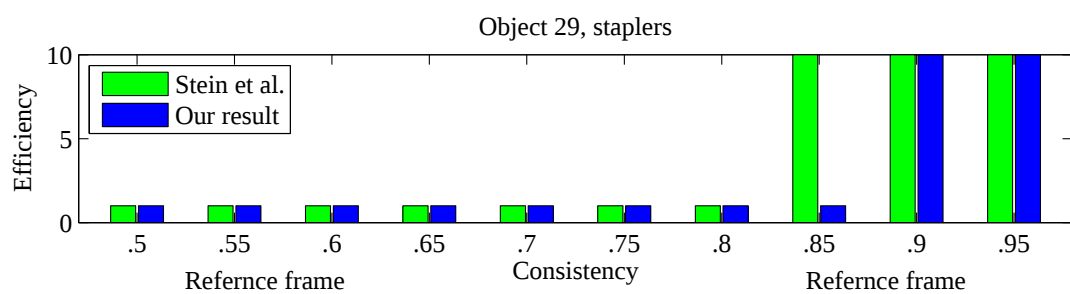
Consistency: 0.852 Efficiency: 9



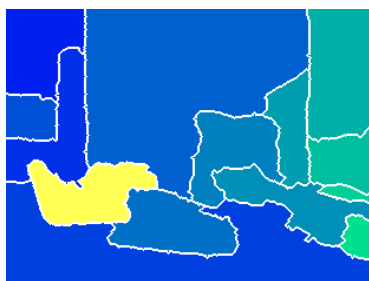


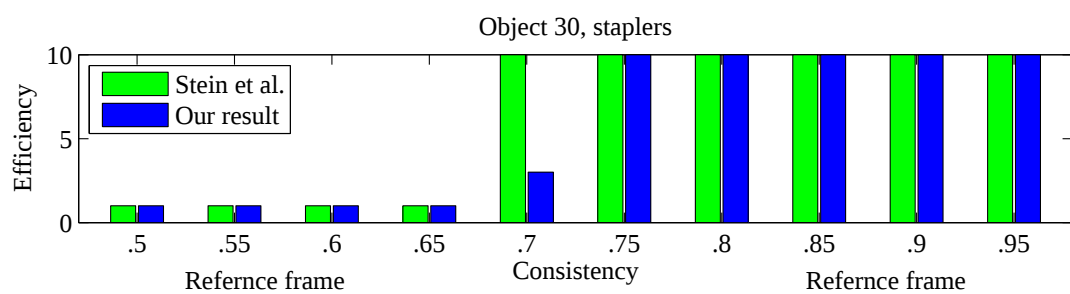
Consistency: 0.859 Efficiencny: 2



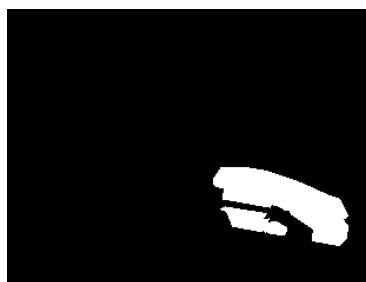
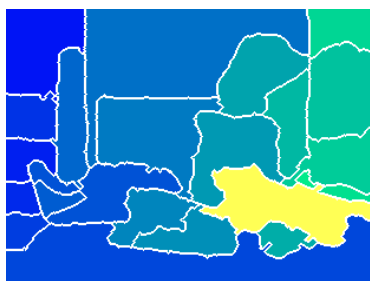


Consistency: 0.877 Efficiencny: 1

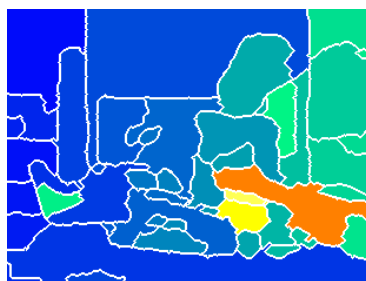


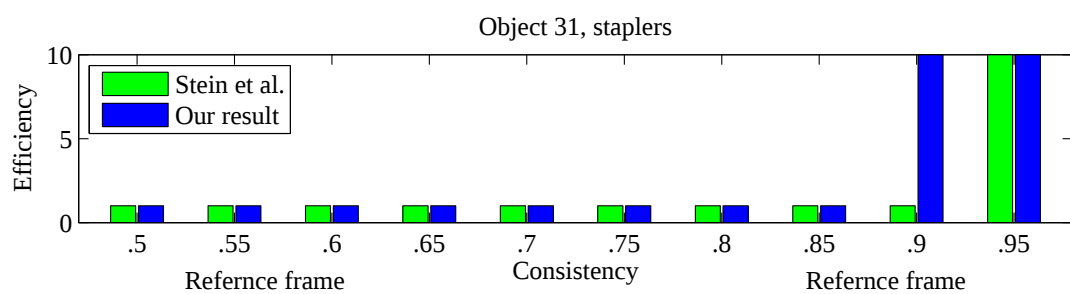


Consistency: 0.677 Efficiencny: 1

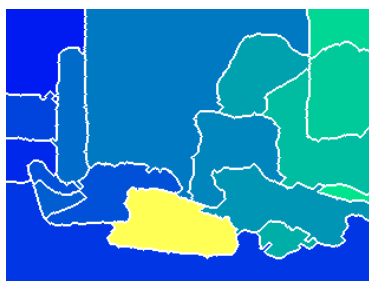


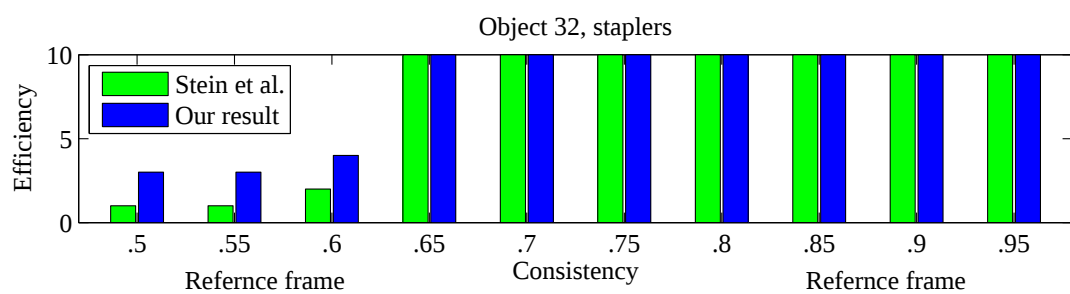
Consistency: 0.705 Efficiencny: 3



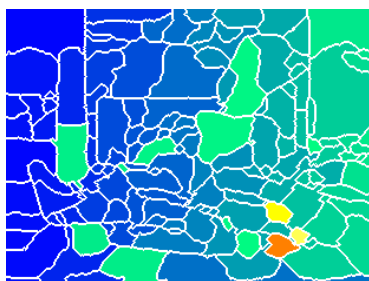


Consistency: 0.869 Efficiency: 1

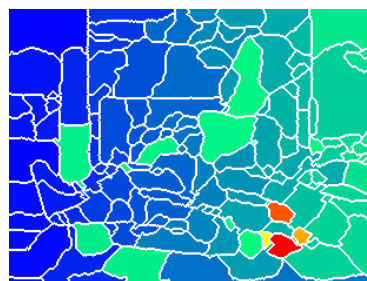


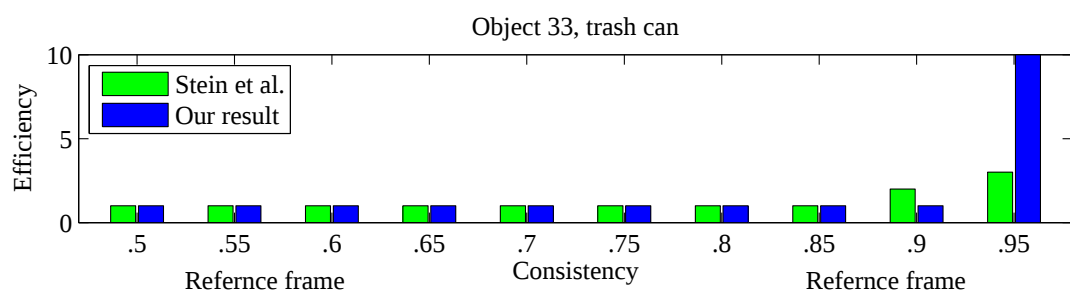


Consistency: 0.560 Efficiency: 3



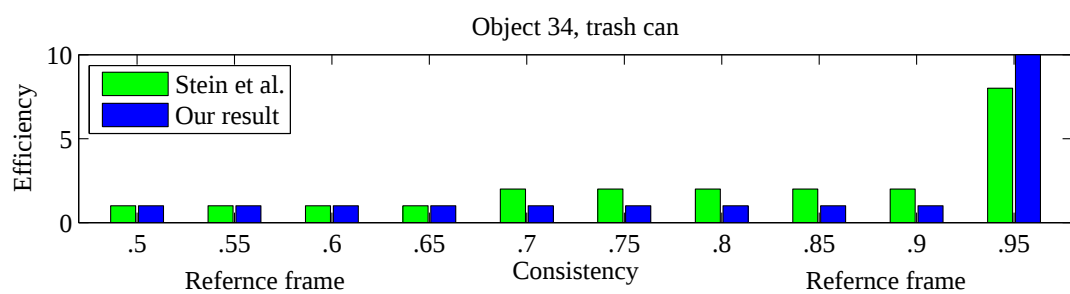
Consistency: 0.609 Efficiency: 4



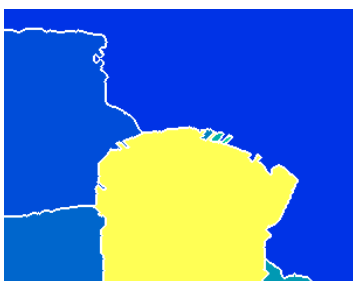


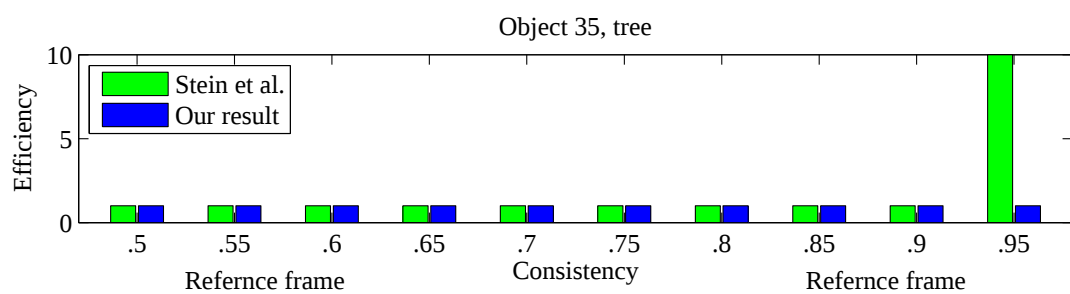
Consistency: 0.927 Efficiency: 1





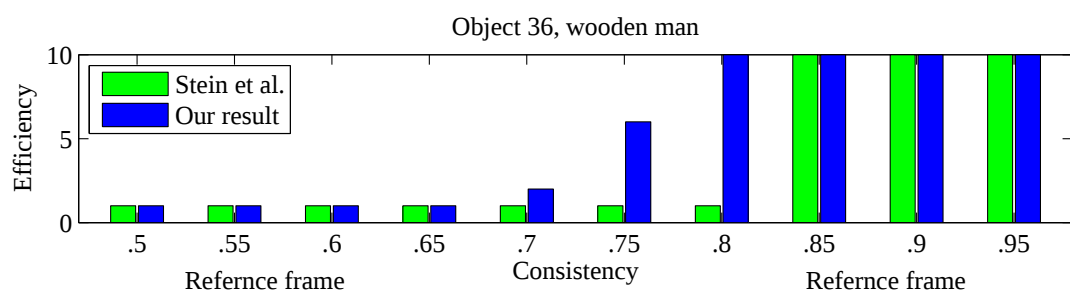
Consistency: 0.934 Efficiecnny: 1





Consistency: 0.960 Efficiecny: 1

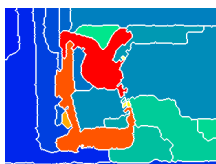




Consistency: 0.681 Efficiency: 1

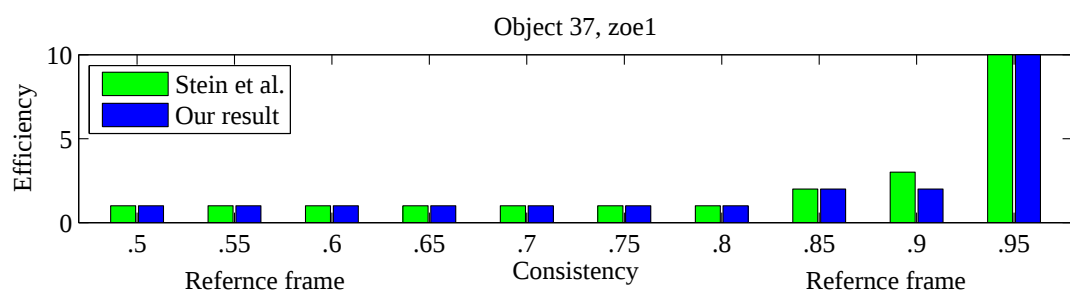


Consistency: 0.750 Efficiency: 6

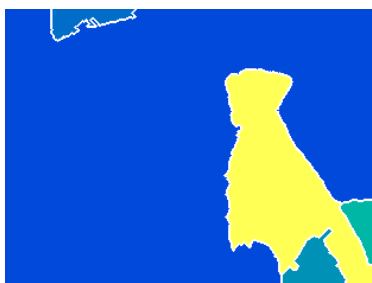


Consistency: 0.733 Efficiency: 2

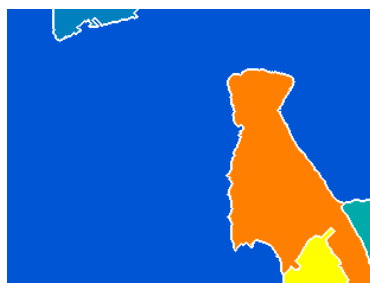


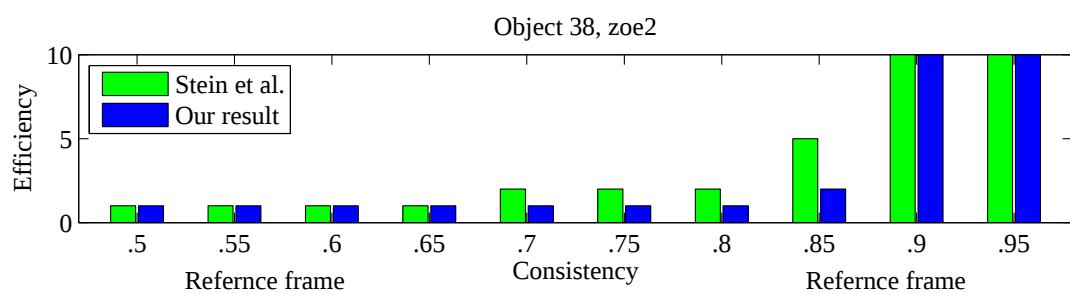


Consistency: 0.822 Efficiecnny: 1



Consistency: 0.928 Efficiecnny: 2





Consistency: 0.846 Efficiecnny: 1



Consistency: 0.861 Efficiecnny: 2

