Supplementary material
ROAM: a Rich Object Appearance Model with Application to Rotoscoping

Ondrej Miksik\textsuperscript{*1} Juan-Manuel Pérez-Rúa\textsuperscript{2*} Philip H. S. Torr\textsuperscript{1} Patrick Pérez\textsuperscript{2}
\textsuperscript{1}University of Oxford
\textsuperscript{2}Technicolor Research & Innovation

1. Parameters and reproducibility

The relative weights of the local and global appearance are 50 and 0.002 resp., $\lambda = 1.0$, $\mu = 0.75$, $P = 9^2$, $M = 20$ and other weights are set to 1. We will release the \textbf{full source code} on our website. As can be seen from our ablation study, all terms contribute to the energy and none of them dominates. Confidence intervals in Fig. 7 suggest that our model is relatively parameter agnostic. Note that our fast alternating optimization with exactly solved blocks should allow us to learn parameters in the future.

2. More qualitative results & videos

As part of this supplementary material, we provide the reader with results on full videos from the DAVIS [4], CPC [3], \textsc{Video SnapCut} [1], and \textsc{ROTO++} [2] datasets. We sample some images from these videos in Figs. 1, 2, 3. More results are provided in the supplementary video.

![Qualitative results](image)

Figure 1: Qualitative results on four sequences from the \textsc{ROTO++} dataset

References

Figure 2: More qualitative results on the DAVIS dataset: Comparisons on scooter-gray and car-shadow sequences between (from top to bottom): JUMP Cut, ROTOBRUSH, ROTO++ and ROAM.


Figure 3: More qualitative results: Output of ROAM on very different sequences from DAVIS, CPC and VIDEO SNAP-CUT datasets among others.