

Image Morphing

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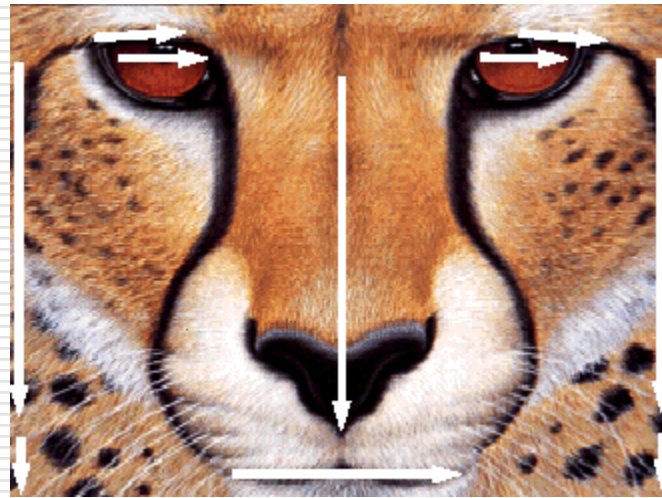
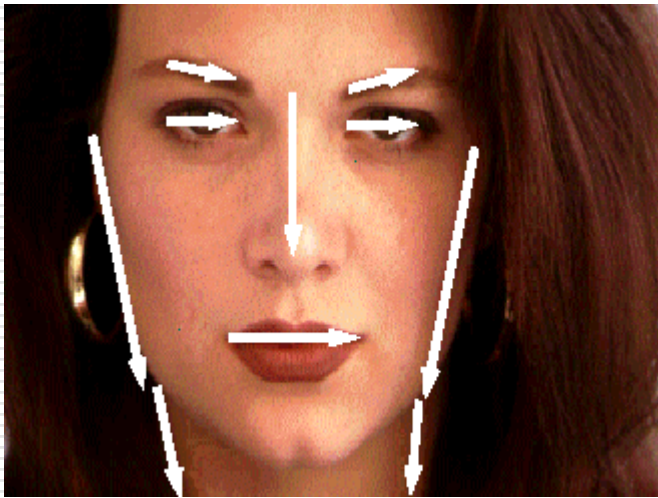
Image Morphing

- Morphing = warping + cross-dissolving
 - Warping : for shape (geometric)
 - Cross-dissolving : for color (photometric)

 - Warp specification
 - Field warping
 - Mesh warping
 - Point warping
-

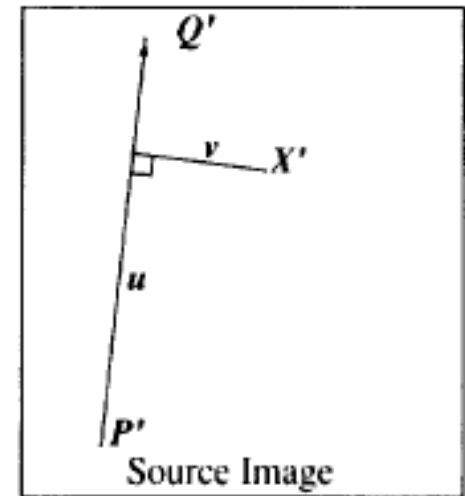
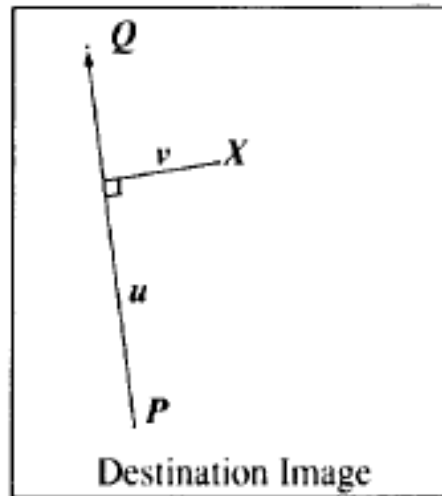
Warp specification: Field warping

□ Beier&Neely (SIGGRAPH 1992)



Warp specification: Field warping

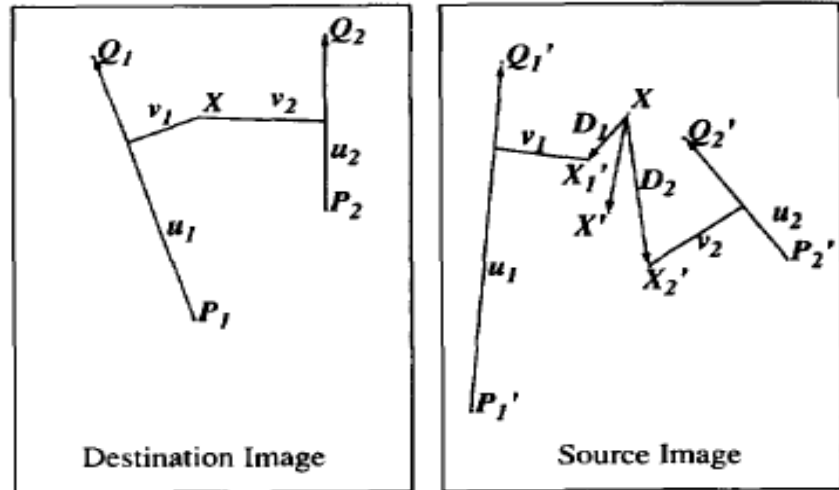
Single pair of lines



- For each X in the destination image:
 - 1. find the original u, v
 - 2. get X' of source image from u, v
 - 3. Destination Image(X) = source Image (X')
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Warp specification: Field warping

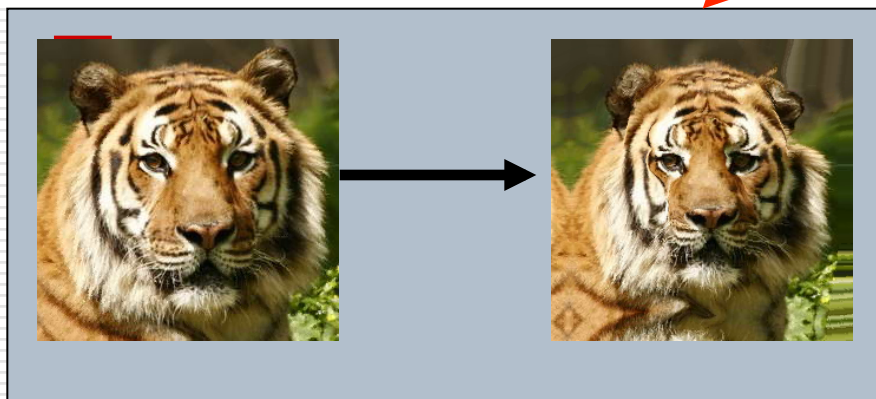
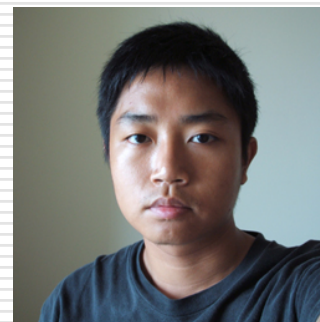
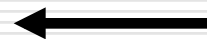
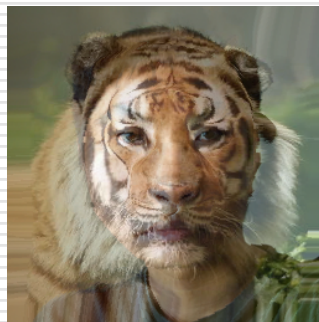
Multiple pairs of lines



- For each X in the destination image:
 - 1. For each line pair I , get X_i' , W_i , D_i
 - 2. $X' = X + \text{DSUM} / \text{weightsum}$
 - 3. $\text{Destination Image}(X) = \text{source Image}(X')$

Warp specification: Field warping

Morphing between two images



Warp specification: Field warping

Demo

The End



Thank You!

