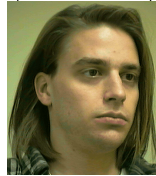
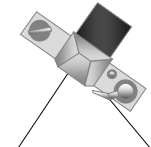
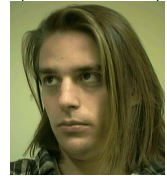
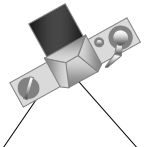


Announcements

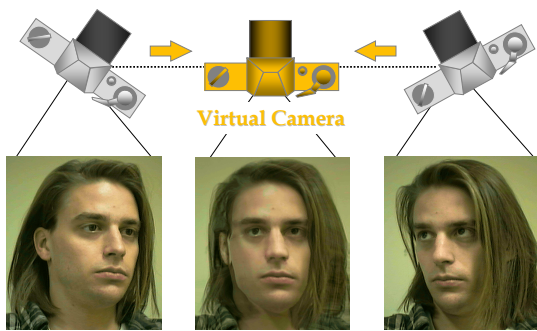
- Review on Thurs
- Project 4
 - due Wed night
 - no later than Friday night (with late days)



Photograph

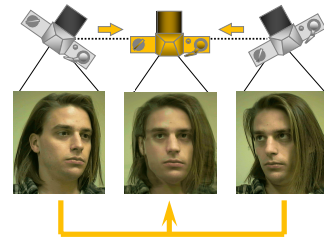


Photograph



Morphed View

View Interpolation



Problem Statement

Input: *two views of an unknown rigid scene*

- from unknown viewpoints

Output: *in-between views from a virtual camera*

Image Morphing



Photograph

Morphed Image

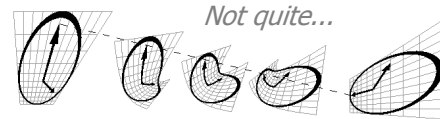
Photograph

Linear Interpolation of 2D shape and color

Image Morphing for View Synthesis?

We want physically-correct view interpolations

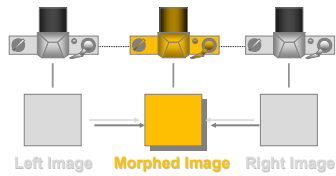
- Can image morphing do this?



Goal: extend to handle changes in viewpoint

- Produce valid camera transitions

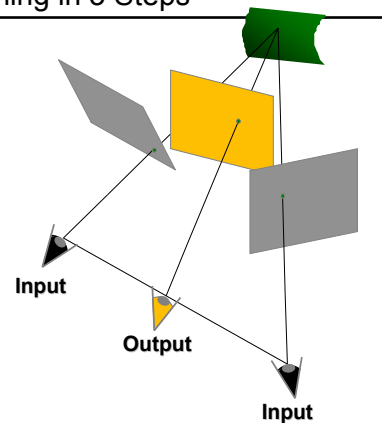
Special Case: Parallel Cameras

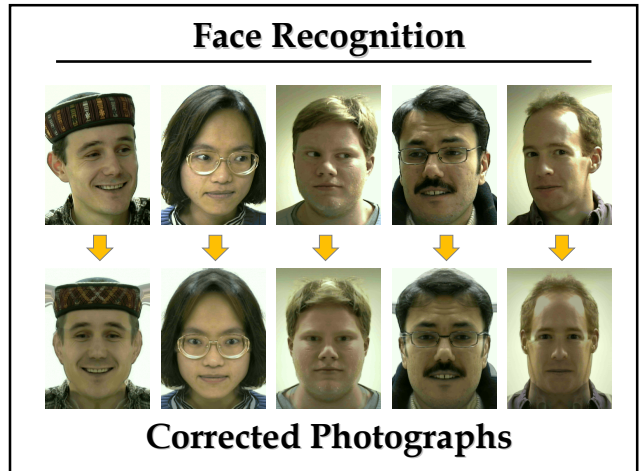
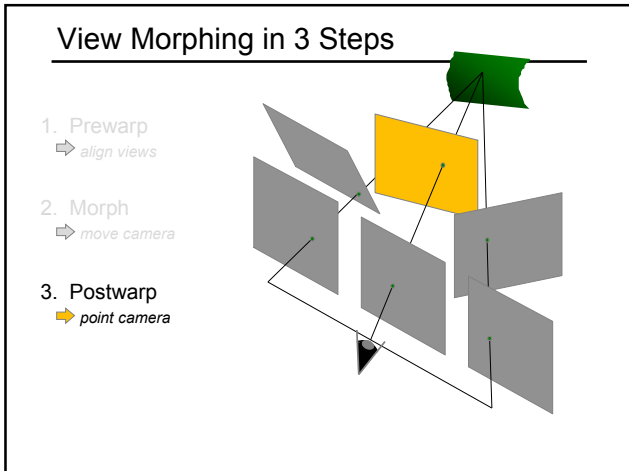
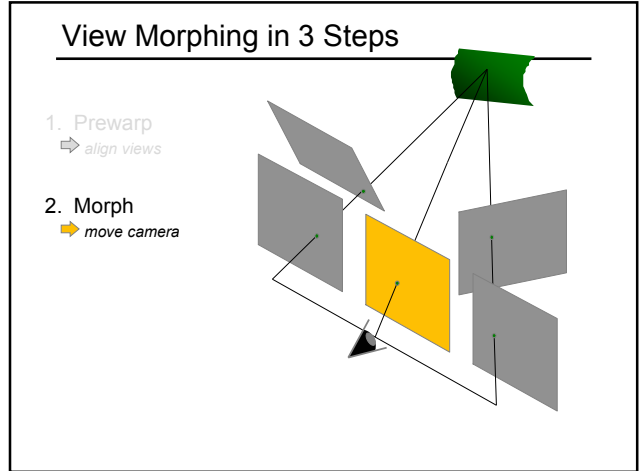
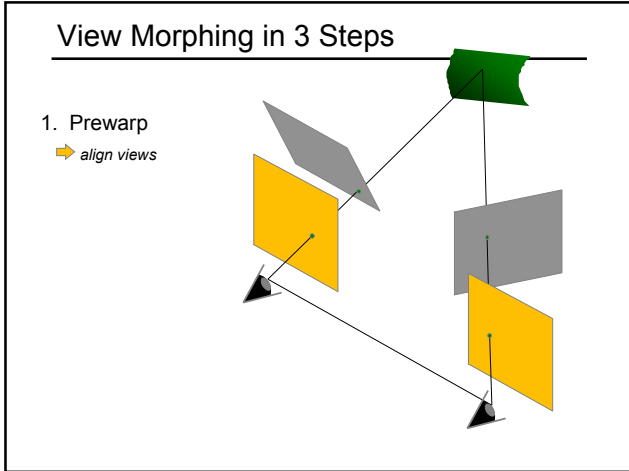


Morphing parallel views → new parallel views

- Linear image motion ↔ linear camera motion
- Works because projection matrices have a special form

View Morphing in 3 Steps





Videos

- View morphing
- Blanz & Vetter (SIGGRAPH 99)
- MIT single view (SIGGRAPH 01)
- Yu inv-radiosity (SIGGRAPH 00)
- Debevec relight (SIGGRAPH 02)
- Video rewrite (SIGGRAPH 97)
- Vision-based pong (Seitz tape)
- Debevec IBMR in art & cinema tape
- Debevec face relighting demo