

CPSC 314

Computer Graphics

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L12
Cameras and Projection 1

Today

- Announcements
 - Assignment 2 available, due Friday, Oct 13
 - Office hours:
 - Dinesh: W 4-5 in X853 (this week, later 005 by appointment)
 - Silver (TA): Thursday 4:30-5:30
This will be run like a tutorial
 - Reminder: you can also drop in on any Lab section
 - Homework: Read textbook Chapter 10
- Lecture
 - Assignment 1 spotlights
 - Cameras and Projection
 - Quiz 1 discussion

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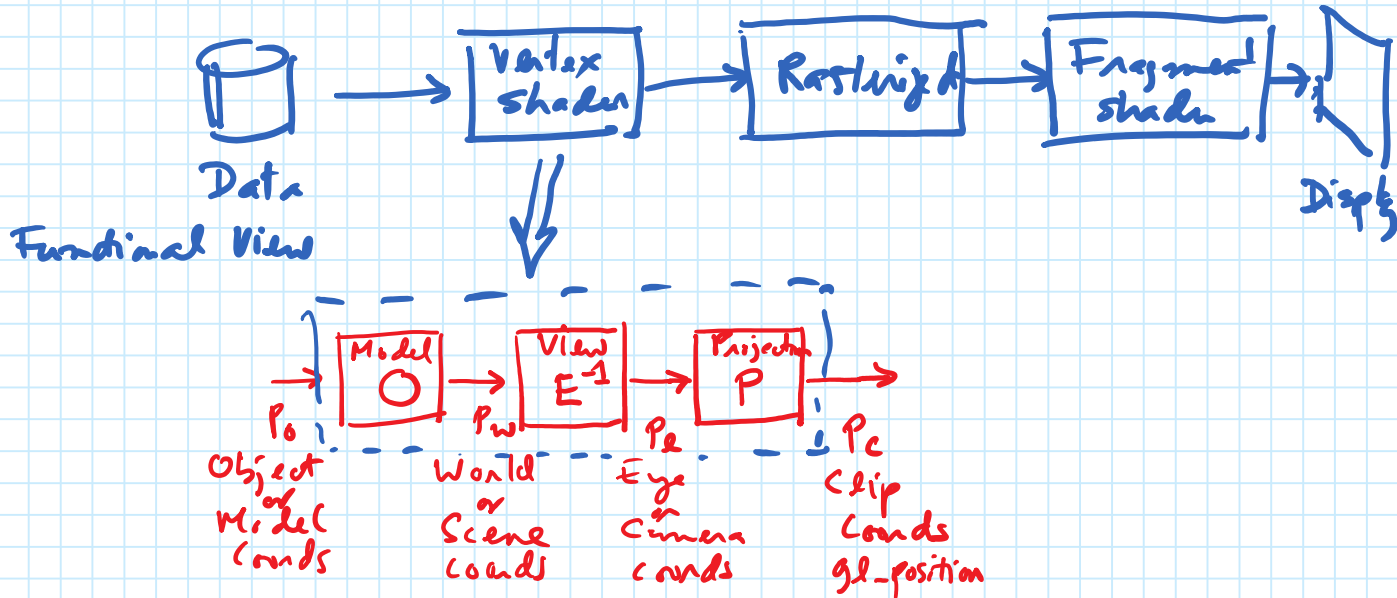
Cameras and Projection

October 4, 2017

10:13 AM

Review the graphics pipeline

High Level (Chap 1)



Today: What is P ?

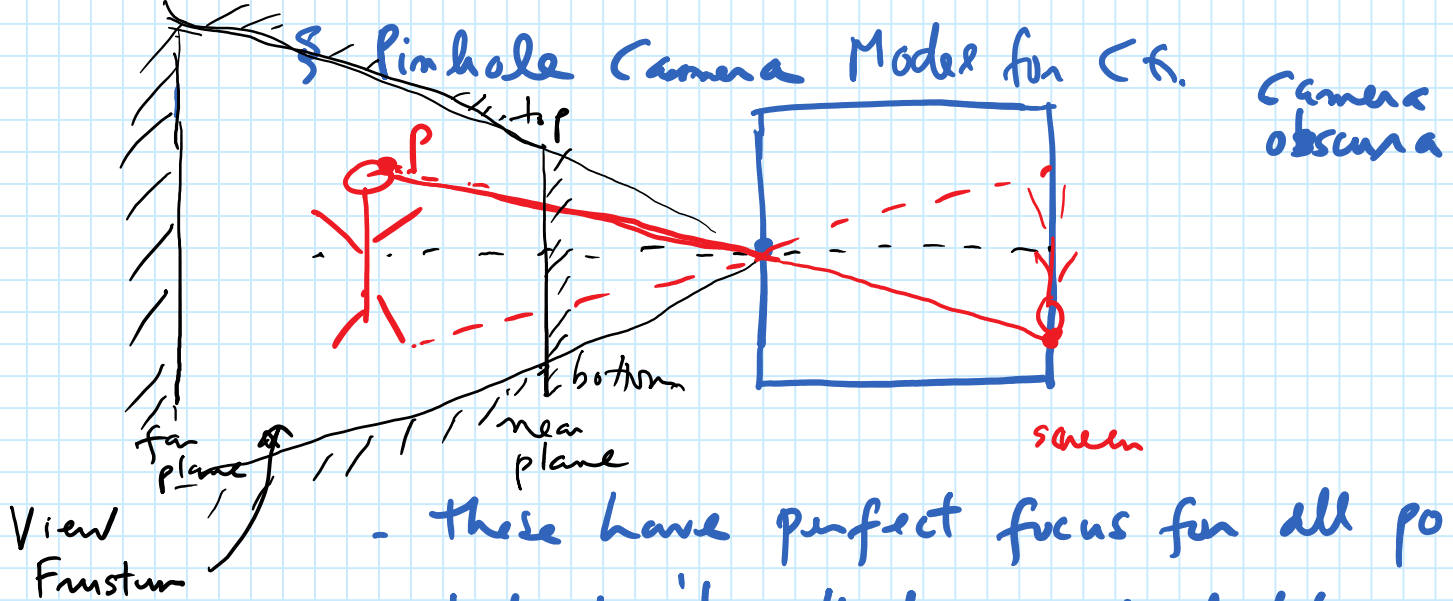
§ Approximate a real camera or human eye

- * Position and orientation of visual axis ✓
e.g. LookAt

- * Projection from 3D to 2D
use Pinhole Camera model

- * Field of view (FOV)

we'll ignore complexities like depth field, film grain, distortion due to lens, .



- these have perfect focus for all points but don't collect enough light.

- Lenses collect more photons and focus them on the screen but can focus only points in a limited depth of field.

We will approximate it with near and far planes defined by user.

- Field of View (Fov)

Approximate with View FRUSTUM