

1. What must the time-dependent view transformation matrix V include if we also want to modify the camera's field of view? (Which transformations does this require?)
2. What is the outline of a real-time (interactive) animation program and of a non real-time (offline) animation program? What are the main differences between them?
3. In real-time animation, how can we ensure that objects move at the same speed regardless of whether the program runs on a faster or a slower machine?
4. What do we mean by position and orientation of an object?
5. Which part of a model's (world) transformation matrix contains its position?
6. Which part of a model's (world) transformation matrix contains its orientation?
7. What does the yaw, pitch, roll model define? What is stored in this model, and how should it be interpreted?
8. Define keyframe animation.
9. Calculation Exercise: Given a property g such that $g(5) = 4$ and $g(9) = 11$, what is the linear interpolation $g(t)$ for $t \in [5, 9]$?
10. How is a hierarchical system constructed? How are the world transformations of objects stored, and how can the actual world transformation be computed?
11. What do constraints mean in the context of a hierarchical system?
12. Describe forward kinematics. What problem does it solve?
13. Describe inverse kinematics. What problem does it solve, and under what conditions is the solution unique?