CS248 Lecture 6

SIMPLE ANIMATIONS IN UNITY

January 25th, 2018

Overview

- Course Logistics
- Short-Form Assignment Feedback
- Practical Uses of Simple Animation

- Animation in Maya
- Animation in Unity
- In-Class Demo

Course Logistics



Piazza

- Please be on it.
- Please use it.
- Last reminder if you joined late.



Grades

- You should have gotten an email with your grades.
 - > We will send this out every Thursday to keep you updated
 - If you are SCPD or doing long form responses and haven't sent them in yet, that could skew what you're seeing.

Short-Form Assignments

- Write your name (or at least your SUNetID).
 - > Lecture 4 had one without a name.
 - If you have any doubts, please email us (cs248.staff@gmail.com) to double check to see if we have recorded your attendance.
- Write legibly.
- Answers should be RELEVANT.
 - > Future answers with horribly irrelevant answers will have points deducted.
 - > Don't get points deducted from your attendance when you actually attended.



Short Form Assignments Feedback

YES, I READ THEM



Rigid Bodies

- A general approximation for certain objects in the world.
- The ENTIRE object can only translate/rotate/scale.
 - > Each vertex gets transformed the same way.



Graphics

Technically Impressive



Aesthetically Pleasing



- Both are good!
- A good game should be aesthetically pleasing/coherent.
 - A good game is not necessarily technically impressive.
- "Gameplay over Graphics"
- Do NOT spend significant time implementing rendering techniques not packaged with Unity (e.g. real-time ray-tracing).

General Good Advice

- Start small.
- Design your game around a singular mechanic.
 - > Super Mario = Jumping.
 - > Flappy Birds = Tapping.
 - > Etc.
- Sound/music is an often overlooked part of video games but they contribute a lot.

- > Generally harder to find/create though so don't worry about it that much.
- DO WHAT YOU ENJOY
- What is fun?
 - > Fun is different for different people.
 - > Casual vs Hardcore.
 - > PC vs Console vs Mobile.
 - > RPG vs RTS etc.



How to Make Animations

- Pre-Made
 - > Maya
 - > Blender
 - > Unity
- Scripted
 - > Tweening Package
 - > Change based off some velocity/acceleration value and/or user input.

On-Rails Movement

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Chivalry: Medieval Warfare



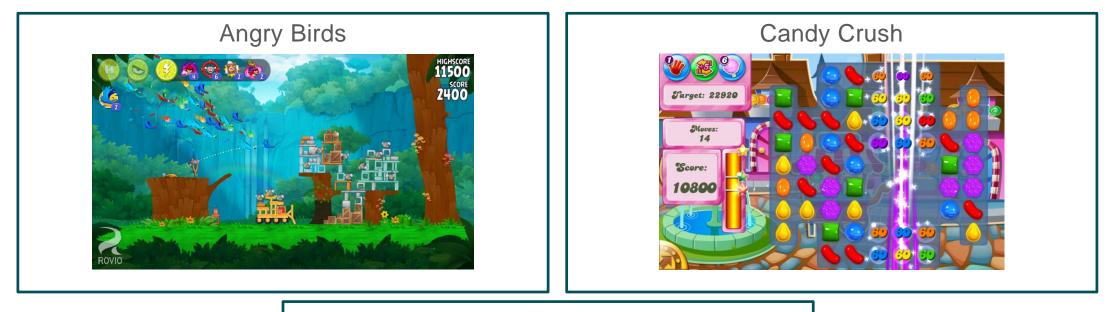
User Interface

Mass Effect	World of Warcraft
Mission Computer	

Dead Space



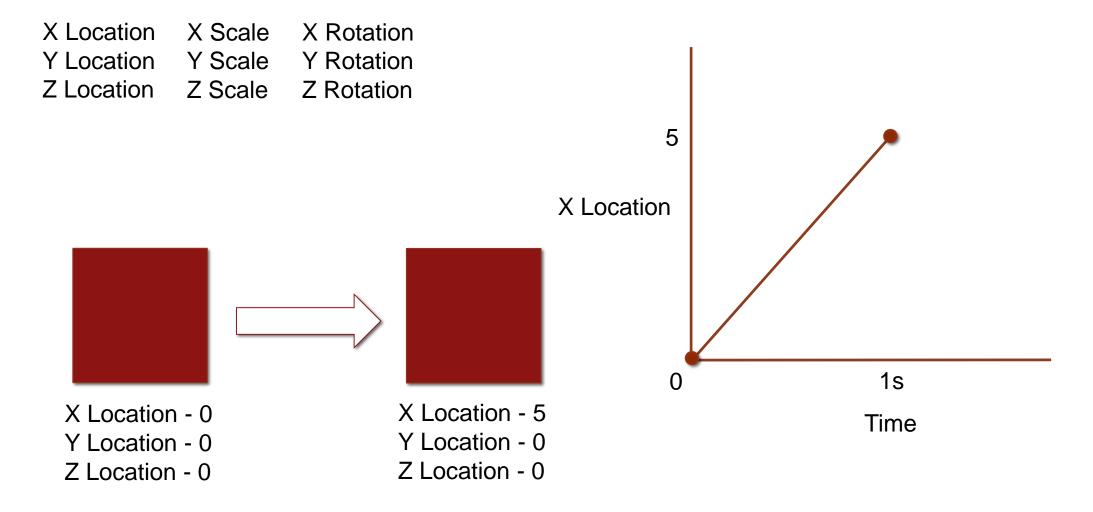
And More...



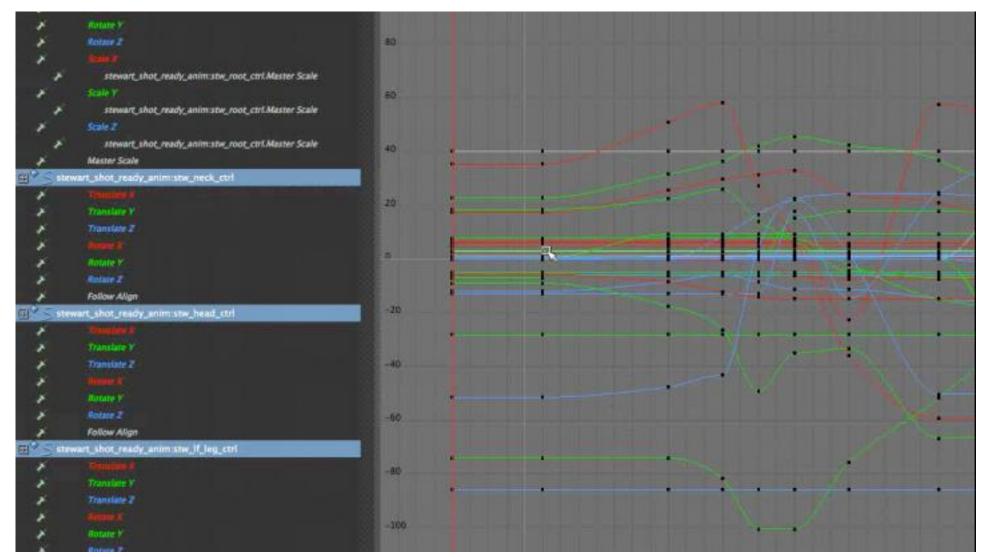
Hearthstone



Animation Splines



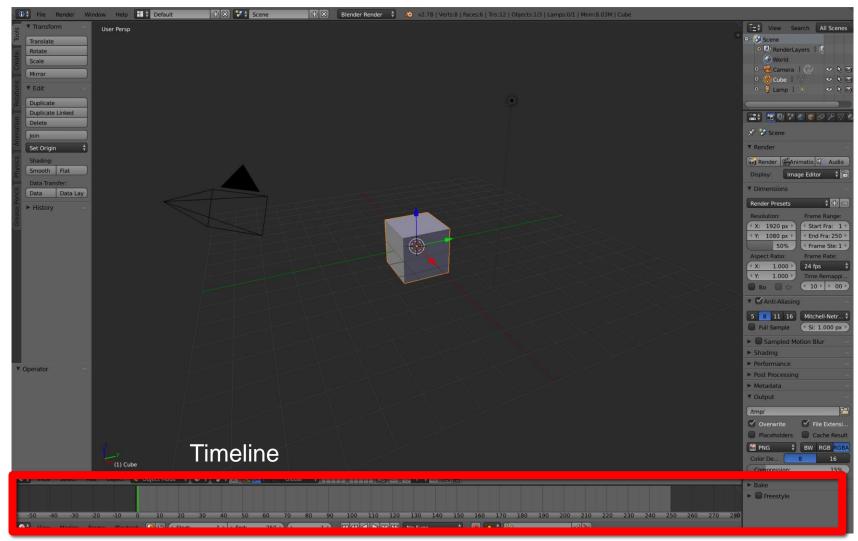
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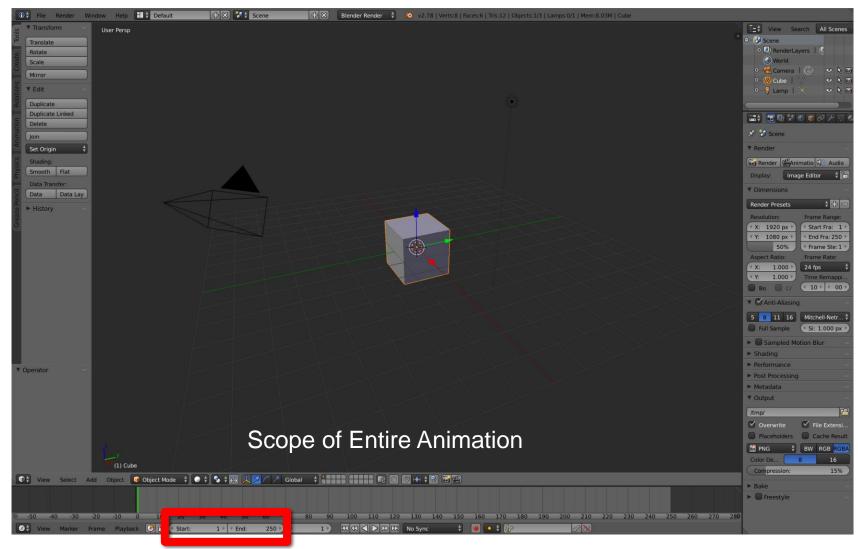


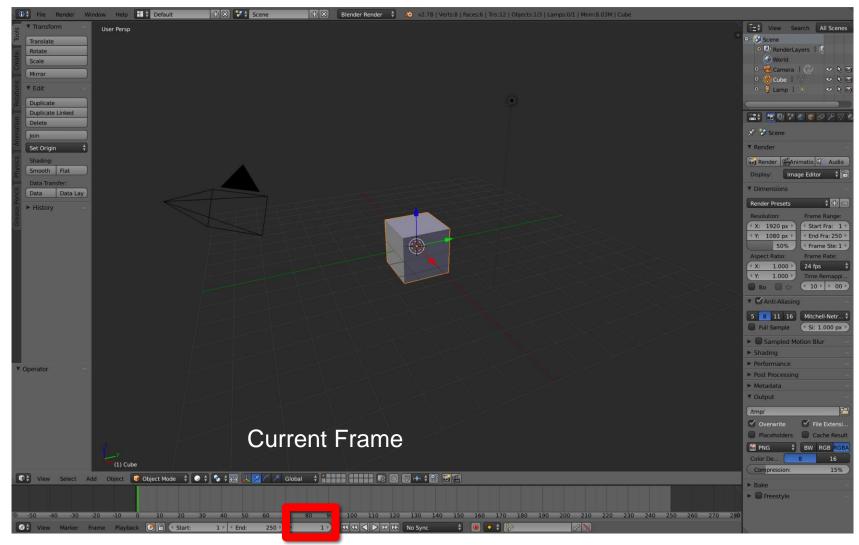
Animation in Blender

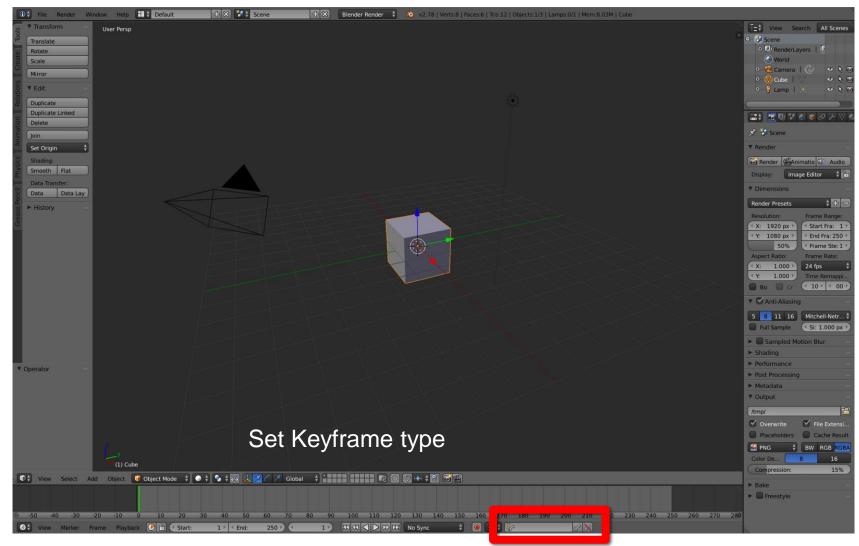
OR MAYA OR 3DS MAX.











Blender UI – Export Animation

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Animation in Unity

NATIVE AND IMPORTED ANIMATIONS.



Import Animations From Maya

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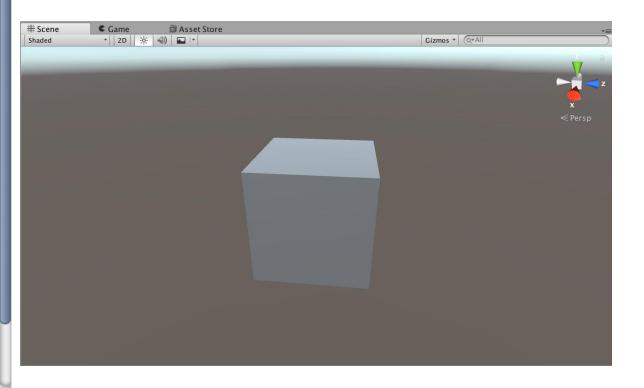
- Make sure the *.FBX is in your "Assets" folder.
 - > Unity will automatically import it.
- Drag and drop into your scene!

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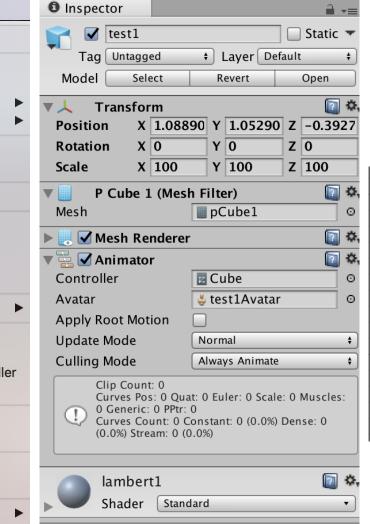
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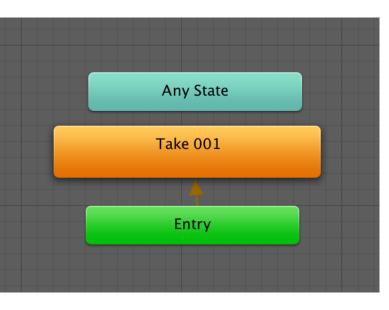


Unity Animation Controller

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Animated objects need an "Animator Controller" to actually play animations.



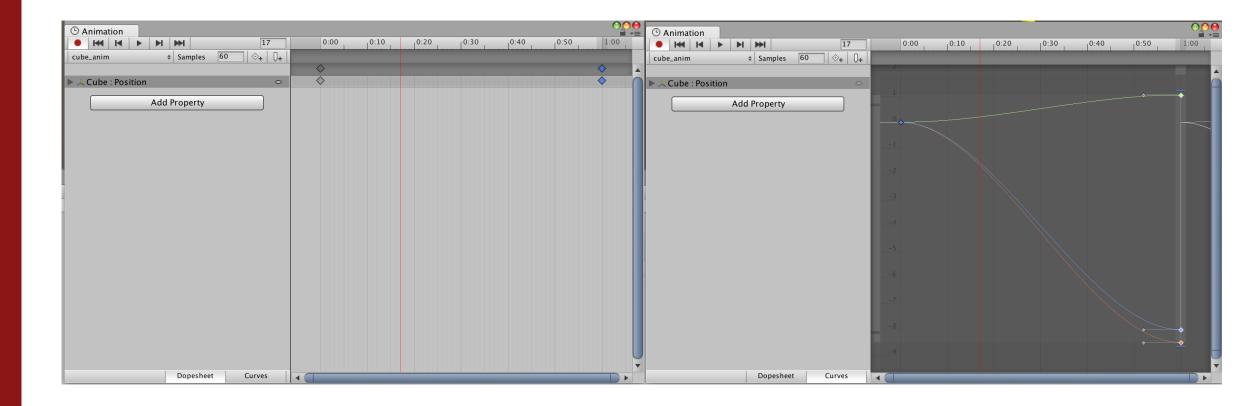
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Native Unity Animation

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Native Unity Animation



Scripted Animation (Tweening)

- Lots of Tweening packages
 - > iTween
 - > DOTween
 - > Etc.
- Useful for simpler animations (e.g. user interface).
- DOTeen Documentation: <u>http://dotween.demigiant.com/documentation.php</u>
- iTween Documentation: <u>http://www.pixelplacement.com/itween/documentation.php</u>



