

15-464/15-664 Reference List for February 8

Most of the websites we viewed yesterday are referenced in the slide deck. However, we also took a look at this paper, which describes in detail some common motion capture file formats. In particular, we looked at the details of how to draw a character having motion expressed in a BVH format motion capture file.

Meredith, Maddock, and Steve Maddock. "Motion capture file formats explained." *Department of Computer Science, University of Sheffield* 211 (2001): 241-244.

<http://staffwww.dcs.shef.ac.uk/people/S.Maddock/publications/Motion%20Capture%20File%20Formats%20Explained.pdf>

We also took a very quick look at this slide deck, which may have been put together by Aryel Beck (if someone knows for sure, let me know), which does a great job of portraying CCD IK in pictures.

<http://www.cs.cmu.edu/~15464-s13/lectures/lecture6/InverseKinematicsBeck.ppt>

The following references detail the mathematics for the 2D CCD case, including equations and code and are an easy introduction to the topic.

Lander, Jeff. "Oh my god, I inverted kine." *Game Developer Magazine* 9 (1998): 9-14.

http://www.cs.cmu.edu/~15464-s13/lectures/lecture6/jlander_gamedev_sept98.pdf

Lander, Jeff. "Making kine more flexible." *Game Developer Magazine* 1, no. 15-22 (1998): 2.

http://graphics.cs.cmu.edu/nsp/course/15464-s15/www/lectures/lec06/jlander_gamedev_nov98.pdf

The following paper covers in detail most of the practical issues that one might encounter when trying to make CCD work as a reliable tool for IK for posing of characters of varying types.

Kenwright, Ben. "Inverse kinematics—cyclic coordinate descent (CCD)." *Journal of Graphics Tools* 16, no. 4 (2012): 177-217.

http://www.virtualpuppetry.com/inverse_kinematics_ccd/paper.pdf