

Calcium

Calcium is a powerful skeletal creation, setup, and motion solving solution. It is an easy to use tool to solve captured marker data onto a skeleton. The marker data drives a pre-defined, rigid, hierarchical skeleton definition.

In the solving process, Calcium reads in TRC marker data of an Init or T-pose, and one or more motion capture sequences. It allows you to view the resulting HTR skeleton data and writes it to a file for later use. The HTR data can then be viewed, edited, and read into all of the major animation packages.

Calcium uses a technique called Global Optimization (GO) which has been proven to be a very effective tool for generating accurate data and minimizing errors caused by markers moving on loose skin.

The skeleton HTR data generated by Calcium is the cleanest and highest quality data you can get for character animation.

Features

- Interactive solving — make an adjustment and see the result immediately
- Multiple skeletons and solvers in one file
- The same skeleton can be driven by more than one marker set
- The skeleton is defined by joint types including “Hinge”, “Universal” and “Spherical”
- Enhanced visual representations of skeletons
- Enhanced data navigation and editing
- Enhanced layout controls
- One simple marker type (as opposed to the requirement of using reference and terminating markers)

Advantages of Using HTR Files

- Proper and complete init pose
- All segments can have translation data
- Multiple global roots are allowed
- Easy readable format
- Widely used standard for many years = robust!

- File Input and Output plug-ins are available for all major animation packages
- More meta-information is in the header than any other ASCII format

Why You Should Use Calcium Technology

- The best skeleton-fitting algorithm in the business
- The axes of rotation for a joint can be defined separately from the axes of the bone definition
- Provides a global and “holistic” solution—the whole skeleton is fitted to the cloud of markers at once, not just parts of the skeleton in separate passes
- The skeleton definition is integrated with the tracking software to run in real-time
- Custom setup modes remember your screen layouts
- Rigid segments are used yet there is never a problem with sliding end-effectors
- Gives useful results even with incomplete data
- Does re-targeting of motion directly onto a character
- Easily handles skeletons of any structure
- Can handle long sequences of shared segments (like a spine) and evenly distributes motion
- Many joint types from which to choose
- User Definable Joint Limit Range

