

Visualization Tool for the Examination of 3D Tracking Results

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Abstract

Many tracking packages claim their high precision in following objects. When such packages are applied to "my data", we cannot refrain ourselves from checking if the package really did the tracking by carefully examining the position of each moving object in the original sequence and the estimated track. This evaluation process is in general not so easy due to the multi-dimensional nature of 3D time series. One simple way is to use the visualization module packaged together with the tracking software, but we are then constrained to that single software package and cannot liberate each processing steps such as preprocessing, segmentation, linking or visualization, and flexibly combine these modules from different packages for the best outcome. In case of visualization, tools that allow you to easily import coordinate text data and visualize them as 3D time series are hardly available. For this reason, a track visualization tool was made by extending the 3Dviewer plugin of ImageJ / Fiji created by Benjamin Schmid (Uni. Wuerzburg). The tool loads track data in text file and visualizes 3D tracks in 3DViewer to compare them with the original 4D sequences.

Keywords

3D viewer, 3D tracking, visualization

