ALEA Solutions – Engineering & Life Science

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ClickJoint



Bewegungsanalyse, Bildverarbeitung, Strichmännchen,

Bewegungsanalyse aus Videos und Fotos

Mit der ClickJoint-Software lassen sich Arm- und Beinbewegungen aus Videos oder Bildern einfach erfassen und als Strichfiguren darstellen. Die Position der Gelenkpunkte und ihre Winkel werden berechnet, als Grafik angezeigt und können zur weiteren Analyse auch exportiert werden.

- vollautomatische Detektion von farbigen Markern
- Kalibration
- mehrere Gelenkpunkte definierbar
- kompatibel mit vielen Videoformaten
- beliebige Videokamera einsetzbar
- keine Infrarotkameras notwendig

Vorbereiten		Analysieren – präsentieren
☑ Videofilm oder Bildsequenzen wählen ☑ Anzahl Gelenke mit Namen eingeben ☑ Distanz kalibrieren ☑ Zoombereich einstellen ☑ Bei Bedarf Länge von Ober-und Unterschenkel eingeben, sodass Knie-Gelenk automatisch gefunden wird	→	☑ Interessante Stelle in Video suchen ☑ Gelenkpunkte anklicken, zu nächstem Bild springen und weiter auswerten ☑ Strichfiguren anzeigen ☑ Gelenkbewegungen und Winkelverlauf beobachten ☑ Resultate exportieren

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Movement analysis, Image analysis, Stick figures,

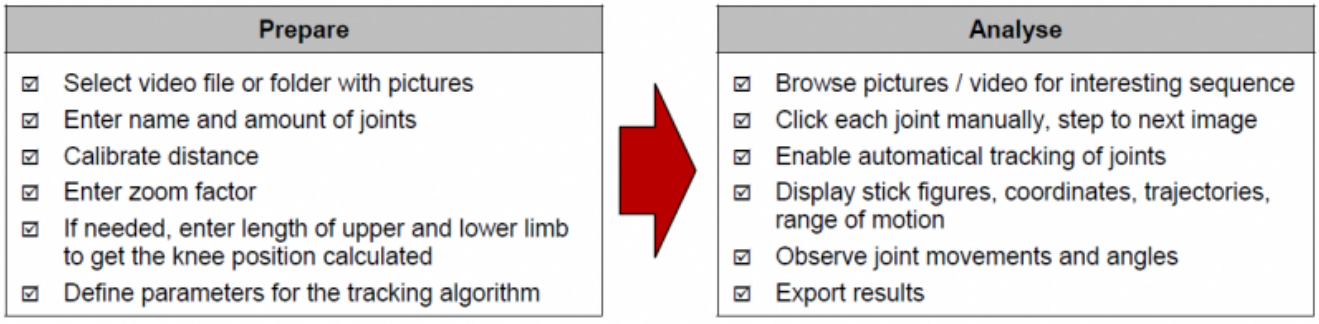
Movement analysis on videos and images

With the software ClickJoint it is fast and easy to determine the movements of arms or legs by creating stick-figures from video or pictures. One click per joint defines lines which can be saved as a series of stick-figures, coordinates or angles.
By making use of the integrated advanced tracking algorithm, markers can be detected automatically. However, as always in automated image analysis, it is recommended to take the pictures under controlled conditions regarding lighting and markers.

- automatic detection of colored markers
- calibration
- several joints can be defined
- compatibel with several video formats
- only standard video camera is required
- infrared camera is not needed

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ClickJoint Referenzen

- Profiling locomotor recovery: comprehensive quantification of impairments after CNS damage in rodents
- Björn Zörner, Linard Filli, Michelle L Starkey, Roman Gonzenbach, Hansjörg Kasper, Martina Röthlisberger, Marc Bolliger& Martin E Schwab
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- Brain 2011: 134; 2261–2273
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- Motor physiology and neural network anatomy in rats following incomplete cervical spinal cord injury
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- ETH Zurich, Faculty of Science, 2011
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- J Neurophysiol. 2010 December; 104(6): 2975–2984
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- Locomotion After Spinal Cord Injury Depends on Constitutive Activity in Serotonin Receptors
- K. Fouad, M. M. Rank, R. Vavrek, K. C. Murray, L. Sanelli, and D. J. Bennett
- J Neurophysiol. 2010 December; 104(6): 2975–2984
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