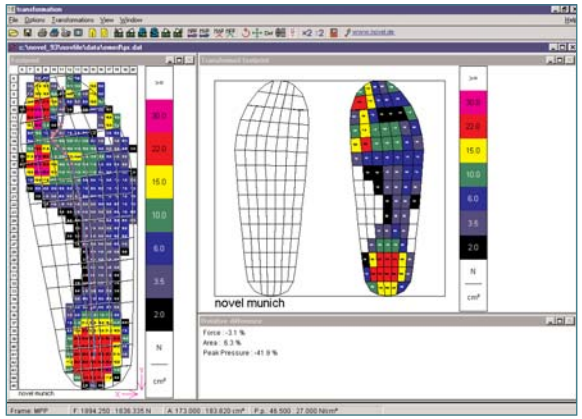
novel tools

The tools package includes special programs for data reduction, data analysis and data transformation.

Programs included:

- force & area derivatives
- differences
- file and value master
- intruders
- transformation



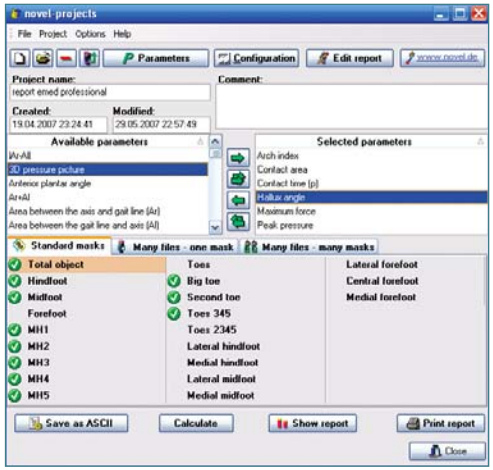
transformation of emed® platform data to pedar® in-shoe system

Features:

- calculates force and area derivatives
- calculates pressure difference between two data files
- selects user defined sequences of pressure data and allows correction of pressure data due to artifacts
- allows reading of special ASCII pressure data
- transforms emed® platform measurements to systems with lower spatial resolution e.g. pedar® insoles

novel projects

The projects software allows the user to define individual projects as macros for automatic analysis of many parameters using the installed novel data evaluation programs.



projects screen for selection of parameters

Features:

- the projects can be designed specifically to the purpose of the data evaluation
- projects allows comparison across patient's visits or within patient groups
- the results of the calculations are presented as html reports
- the results of the calculations can be stored in the database medical and there a basic test for statistical significant differences is implemented

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software

foot analysis

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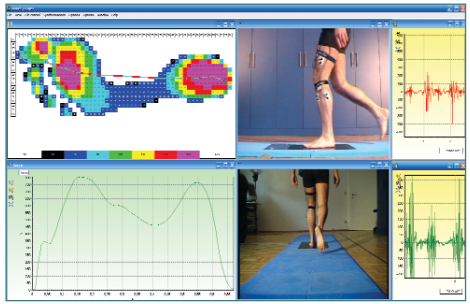
art in science

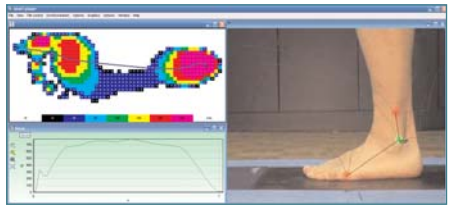
footanalysis_engV3_July22/2008_NL

novel player

The player software synchronises pressure distribution data obtained from emed® and pedar® with several video files and other ASCII files e.g. EMG.



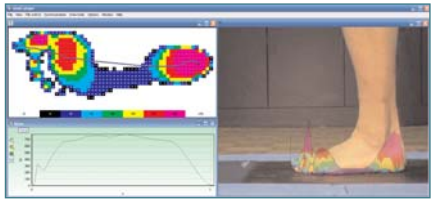
emed® platform data synchronised with video files and EMG



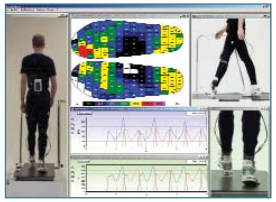
video with traced 2D markers

Features:

- displays and stores many video and ASCII files synchronised with pressure data
- overlays dynamic foot pressure analysis with digital videos
- allows 2D marker tracing and calculation of angles
- controls all dynamic analysis programs of novel
- produces an AVI file of all synchronised dynamic events for media players



video with overlayed 3D pressure distribution display



pedar® in-shoe measurement data synchronised with video files

novel multimask

The multimask package is used for the regional analysis of pressure distribution data obtained with emed® and pedar® systems.

Programs included:

- automask
- multimask and groupmask evaluation
- emascii
- average

groupmask evaluation of emed® platform measurement data files

Features:

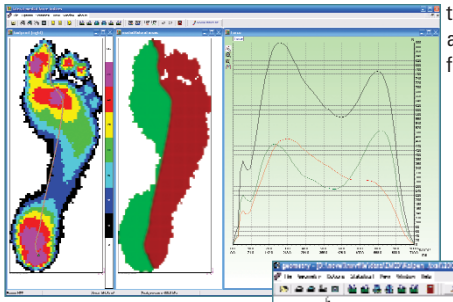
- applies masks automatically to anatomical foot regions with detection algorithm
- applies defined masks of foot regions
- calculates various parameters across user defined foot regions
- calculates statistics for parameters such as mean value, SD or 95% conf. interval
- exports results in ASCII format
- calculates the average of pressure measurement data files

novel gaitline & geometry

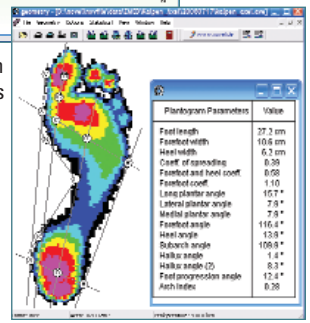
The package gaitline & geometry includes programs for the analysis of the center of pressure line and the foot geometry.

Programs included:

- lateral/medial area & force indices
- velocity of the COP
- regional velocity of the COP
- geometry



total, lateral and medial forces



plantogram parameters

Features:

- calculates lateral/medial force and area indices and the corresponding derivatives
- calculates the velocity of the center of pressure in x- and y-components, separately
- computes the time, speed and distance of the center of pressure for the total foot and four foot regions (heel, midfoot, forefoot and toes) separately
- calculates various plantogram parameters and characteristics angles