



RADIN.ortho

RADIN.ortho is a software component of the RADIN product family especially developed for orthopedics. The main function is to provide a digital environment to assist in the assessment of geometrical changes of the lower extremities and make all surgical planning without the need for a film.

After the physician has entered the patient details, RADIN.ortho can retrieve historical patient information stored in the Image Management System. This will ensure that all information is made available to the physician for the diagnosis and surgical procedure preparation. RADIN.ortho also has the possibility of making highly accurate measurements to ensure that critical features and factors are determined quickly and accurately.

RADIN.ortho includes the following modules:

- Hip Endoprosthetics for the systematic selection of prostheses and for planning hip implants to ensure an exact fit
- Choice of artificial prostheses, for accurate size planning of hip implants.
- Hip biomechanics for a perfectly prepared implantation.
- Coxometry for accurate measuring of clinically relevant hip values for children and adults.
- Knee endoprothetics for optimum surgical planning using both partial and complete leg images.
- Osteotomy for optimum identification of pre-operative axis and simulation of single and multiple osteotomies. That increases the durability of the implant.
- The software package includes a digital prostheses template. Others can be obtained on request.

The module Osteotomy II is available as an **option** for the calculation and correction of complex deformities of the lower extremities according to Dror Paley.

Benefits:

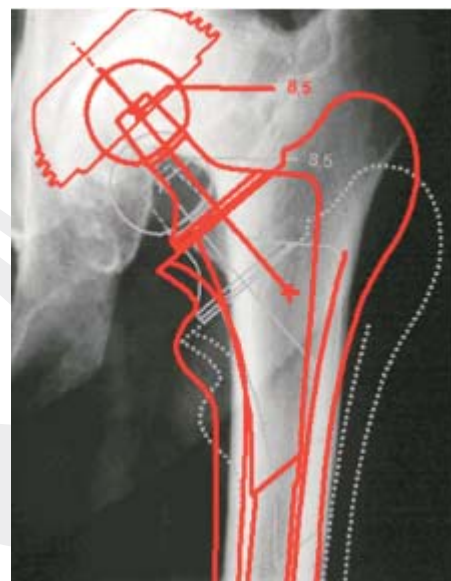
- By acquiring and sending back digital surgical planning images and measuring data to the central RADIN database, workflow is optimised.
- Using only a few mouse clicks, pre-operative biometrical measurements are done accurately.
- High quality standards are ensured for preoperative diagnosis and therapy planning.
- Prostheses can be accurately customised to exact anatomical conditions. Therefore errors are avoided in the preliminary stages.
- All required manufacturer templates can be selected from a single prosthesis database.
- Operation is similar to other popular MS/Windows applications, and is supported by a wizard function.

Image data is transferred from the RADIN Image Management System to the software module RADIN.ortho where the surgeon can pre-plan surgical procedures. The resulting data is then sent back to the RADIN Image Management System and if required all planned procedures can be printed using a standard Windows printer.

The RADIN.ortho software package is easily integrated and added to existing RADIN installations.

Example endoprothetic hip

Simulation of leg length compensation, medialisation, lateralisation, abduction and adduction.



Example biomechanic hip

In accordance with biomechanical models according to Babisch / Layher / Blumentritt, an optimum zone (green) is calculated automatically, which is to be positioned in the joint geometry. This is mainly relevant for dysplasias.





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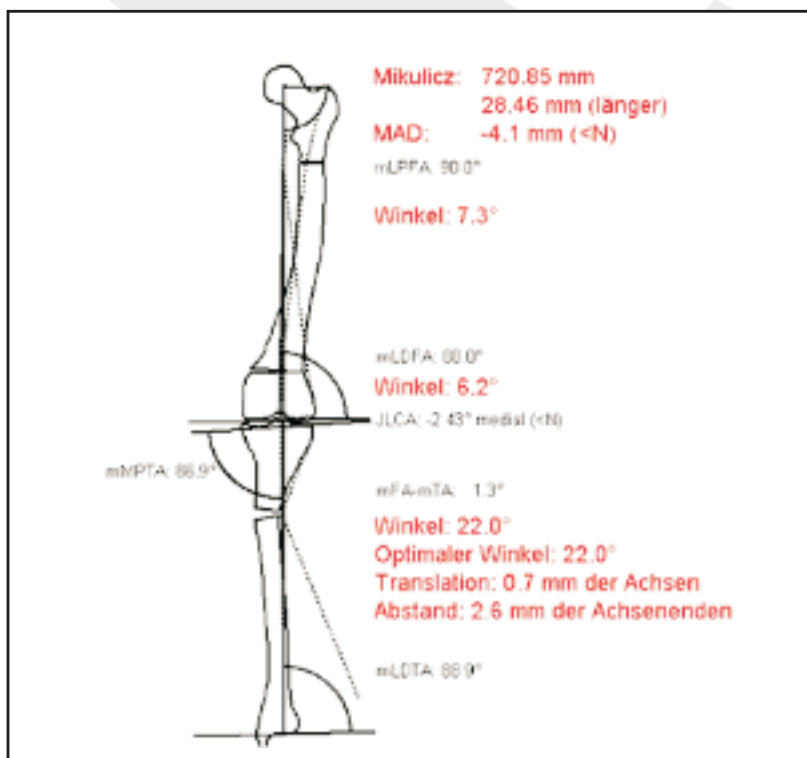
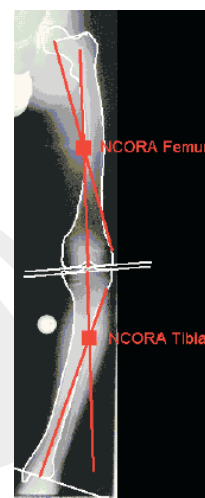
Hardware requirements:

- Parallel port (ECP/EPP) or USB port
- CDROM drive for installation
- Min. 700 MHz CPU
- Min. RAM 512 MB
- Min. Hard Disk space 512 MB
- Mouse with scroll wheel
- Display: True color or 16 bit colors

Software requirements:

- Microsoft Windows XP SP1a, 2000 SP4, NT 4.0 SP6a, 98+
- RADIN.expert Client License (in connection with RADIN)

A color monitor is recommended to clearly identify colored illustration.



**Axes corrections and/or osteotomies for 1 or 2 levels
 - AP and SAGITTAL
 as Prof. Dror Paley - Balitmore/Maryland**

