Introduction to Processing of CT Clinical Metadata of Disabled Part of Patient Knee Joint

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This article focuses on an analysis and a transfer process of CT clinical metadata of a real patient gained within a cooperation, research and development of an individual knee joint implant at Clinique of Display Methods in Saint Anna's Teaching hospital in Brno. The first part of the article is aimed at the application of a software 3D-DOCTOR that enables gaining of demanded output data (e.g. a model of patient bone part, i.e. knee joints) from scanned input CT metadata in DICOM format (*Digital Imaging and Communications in Medicine*). The output data are gained in format *.stl (*Stereo Lithography*) to further possible usage (e.g. a design and a production of individual total joint prosthesis). The second part of the article concentrates on an application of software RP MiniMagics that enables editing, modification and the whole optimization of polygon net by which models of distal part of femur and proximal part of tibia are described.

Keywords: Knee Joint, CT Metadata, 3D-DOCTOR, Technology, RP MiniMagics

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