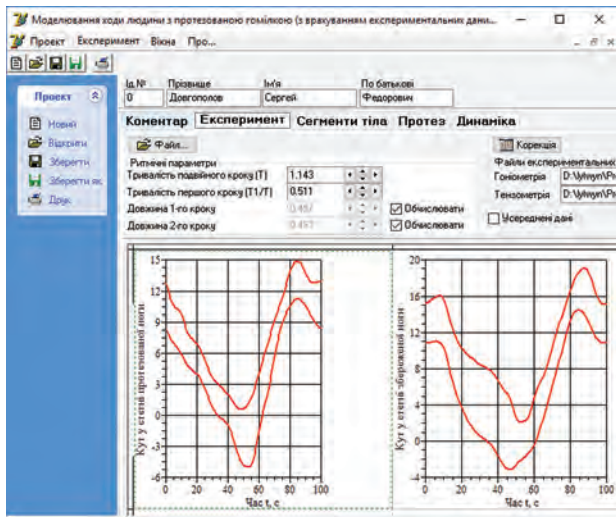# SOFTWARE FOR CALCULATING THE DYNAMIC AND ENERGETIC CHARACTERISTICS OF THE HUMAN GAIT WITH BELOW-KNEE PROSTHESIS

Input of biomechanical measurement data

Areas of Application

The software is designed for calculating dynamic and energetic characteristics of the human gait with below-knee prosthesis based on the data of biomechanical (goniometric, podographic, and tensometric) measurements
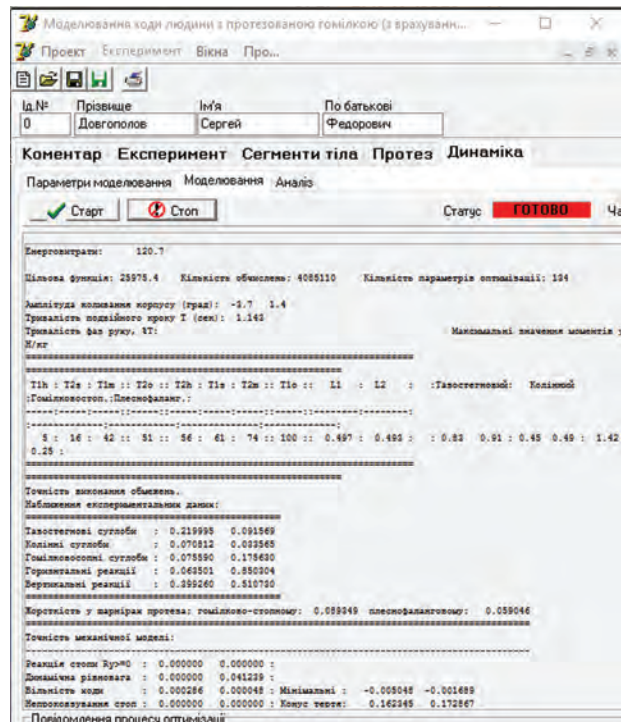
Specification

The software is a modern Windows application with multi-window interface suitable for inputting data, calculating the human gait characteristics, saving data (datasheets, charts), and printing. The software is based on mathematical model of the human gait with below-knee prosthesis developed by authors and optimal energetic approach to calculating the gait characteristic with incomplete set of initial data

Human gait parameter calculation results

Advantages

There are no domestic analogs of software. In comparison with foreign counterparts the proposed software has a much lower commercial cost, is based on simpler models of the human gait, and takes into account full natural sequence of feet movement, kinematic and dynamic restrictions within double step interval, and prosthesis stiffness

Stage of Development. Suggestions for Commercialization

IRL3, TRL3
Supply, customization, support, and staff training, upon request

IPR Protection

IPR2

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