EVALUATION OF HUMAN MOTION USING BIOMECHANICAL INTEGRATION: A SYNCHRONIZED APPROACH TO COMPUTER ASSISTED VISUAL EVALUATION



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- Video Images,
- 3-D Stick Figures,
- Kinematic & Kinetic Data in graphic/tabular format,
- Analog information from force plate & EMG data

Applications

- CLINICAL APPLICATIONS,
- SPORT PERFORMANCE,
- INDUSTRIAL APPLICATIONS.



Hardware

- Main Computer System
- Workstations
- High Speed Camera
- Capture Card
- Network
 - Intranet
 - Internet



Software Integration



Software Integration

- Capturing
- Digitizing
 - Locally
 - Net Digitizing
- Transformation
- Filtering
- Kinematic Results Disp
- Kinetic Results Display

Video Recording

Hi Speed Camera at 120 Hz

GR-DVL9500U

LCD Monitor VHS Camcorder

Video Capturing

Digitizing

Digitizing

- Manually
- Automatically

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Transformation

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Filtering/Smoothing

Display and Analysis

Display and Analysis

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Program Integration and Synchronization

Applications

DATA INTEGRATED GAIT ANALYSIS

Clinical Gait Phases

Heel-strike, Mid-foot, Toe-off

Sports

Thank you

