SYDOR TECHNOLOGIES

BIOKINETICS HELMET TESTING SOFTWARE

COMPLEX MEASUREMENTS—CRITICAL RESULTS

OVERVIEW

Biokinetics' Helmet Testing Software (HTS) is a user friendly data acquisition program specifically designed for helmet certification and performance testing. The HTS interfaces directly with all of Biokinetics' helmet test apparatus via PC based data acquisition and motion control boards. The HTS will control and/or collect test measurements from an impact tower, retention testers, roll-off tester, mass property instrument, helmet rigidity tester and linear impactor.

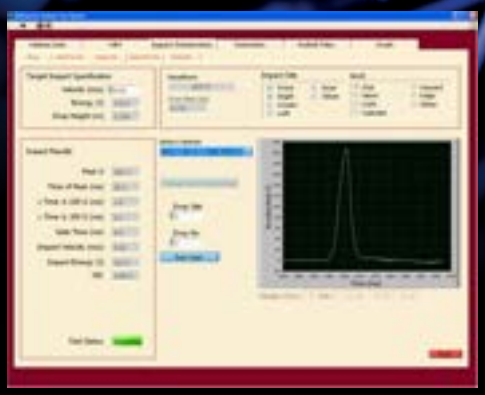
OPERATION

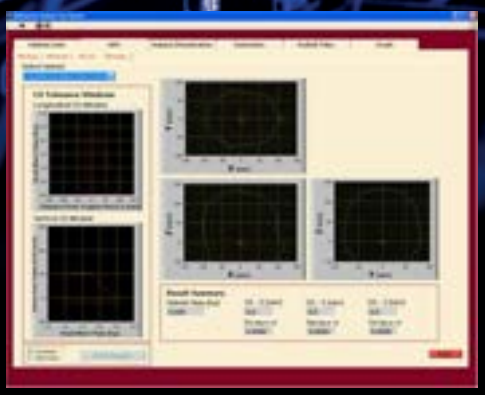
Prior to the commencement of testing, database fields incorporated in the HTS simplify record keeping and report generation once testing is completed. Information such and sizing, helmet identification, conditioning environments and test standard can be entered and are stored with the test data.

Test screens specific to the test apparatus supported by the HTS simplify the performance of pre and post-test instrument verification and the entire test sequence on a helmet. The results from each test are instantly displayed both numerically and graphically. The data are also saved to disk for review at a later date.

When testing is complete, the HTS generates a test report that can be sent directly to any printer installed on the computer, including PDF creation programs.

SAMPLE SCREENS FROM THE HTS





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PRODUCT SPECIFICATIONS

Computer Requirements
- Windows XP, Pentium P4 2.0 GHz, 512 Mb RAM
- 1280 x 1024 minimum screen resolution
- 1-4 PCI expansion slots required

Data Acquisition Hardware
- Integrates with MPI, HIT, HST, HRT-S, HRT-D
- Measurement: National Instruments PCI 6221
- 16 bit input resolution, 250 KHz sampling
- 80 MHz counter for event timing
- Motion Control: National Instruments PCI 7332

Accommodated Measurement Instruments
- Accelerometer (uni-axial or tri-axial)
- Linear potentiometer
- Load cells
- Velocity gate

Test Result Documentation
- Impact attenuation
- Retention elongation
- Helmet stability
- Penetration resistance
- Mass, CG and mass moment of inertia

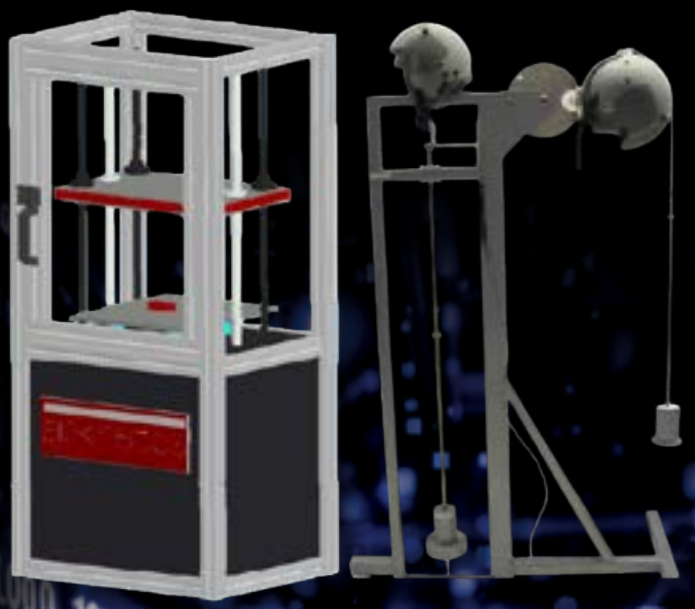
Routine Calculations
- Peak accelerations
- Impact velocity
- Impact energy
- HIC
- GADD Severity Index
- Dwell time at 150 g and 200 g levels

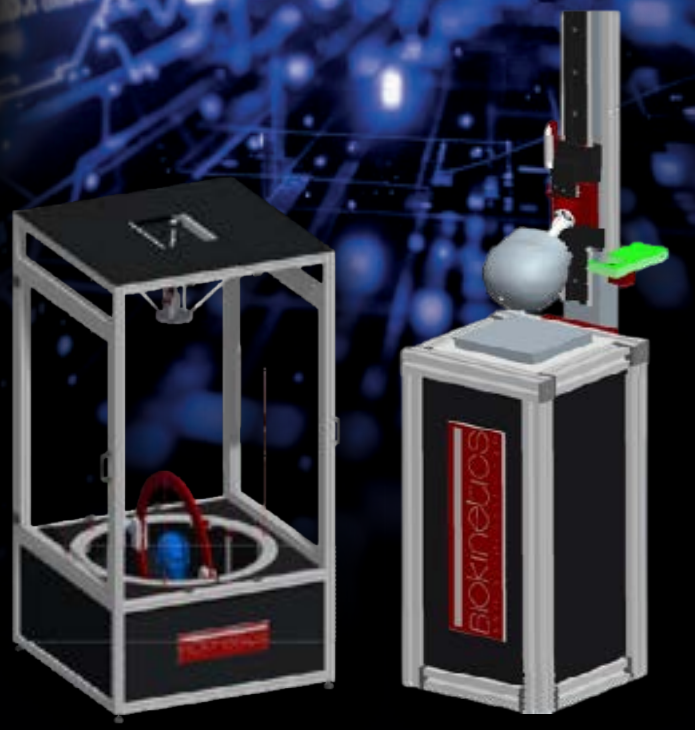
Other Software Features
- Graphical user interface and intuitive layout
- Automated data collection, analysis and summary
- Automated report generation
- Allowance for testing of multiple helmets in one session (up to 40)

Biokinetics

Sydor Technologies is a proud distributor for Biokinetics

HST - Helmet Stiffness Tester | HRT-D Helmet Retention





MPI - Mass Properties Instrument | HIT - Helmet Impact Tower

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