ATD-LabTech
Software & Data Acquisition

While an industrial PC with ATD-LabTech software is the central unit for any of the primary Test Systems; the software and data acquisition are also offered as individual units. Capable of acquiring and analyzing data from a variety of DAQ manufacturers, (DTS, Kistler, Messring, mg-sensor, etc.), the ATD-LabTech software and data acquisition solutions are universal and user-friendly.

Analysis Toolkit

The Analysis Toolkit is used for the evaluation and reporting of test data from dummy certifications. The toolkit is available as a plug-in for the DIAdem software from National Instruments. ISO-compliant MME data can be loaded and saved with several custom functions also available.
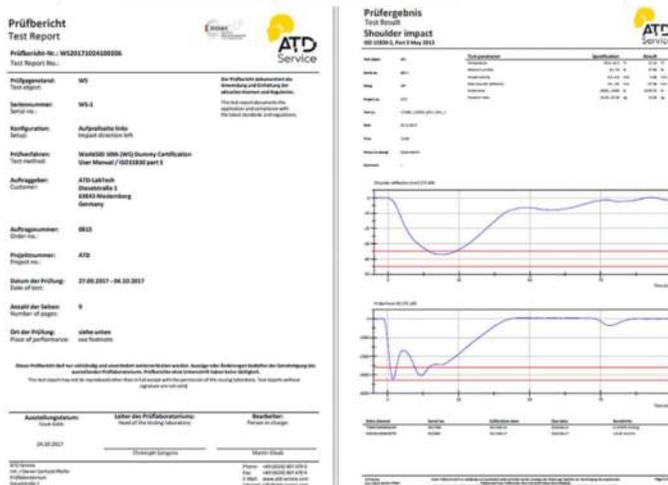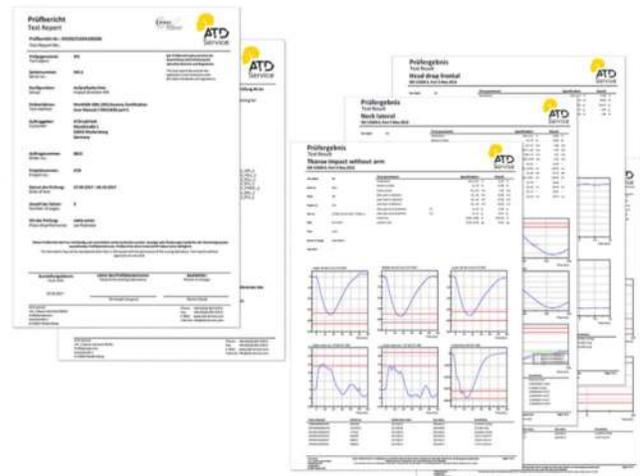

Test reports that are compliant with ISO/IEC 17025:2017 are created from the analyzed measurement data. Design and layout can be flexibly adapted: for example, logos and texts can be changed to customer requirements or reports could be generated in several languages. The analysis can also be tailored to specific customer needs.
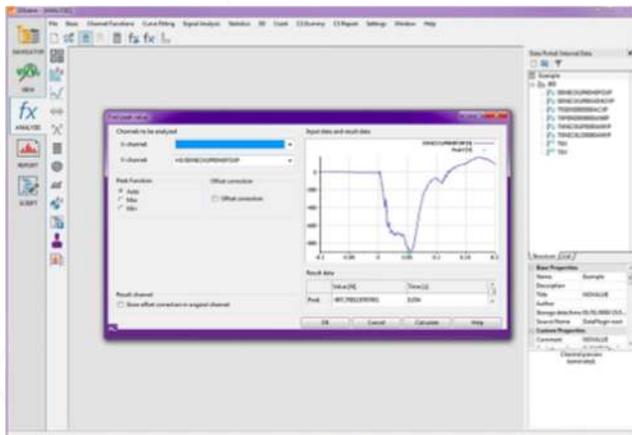
Software & Data Acquisition, Continued

With just a few clicks, channels relevant for certification can be evaluated or other analysis functions can be used. Examples of this are the actual report creation, a T0 determination, CFC filter, definition of the signal direction, the merging of data sets or the "finding" of the signal peak.
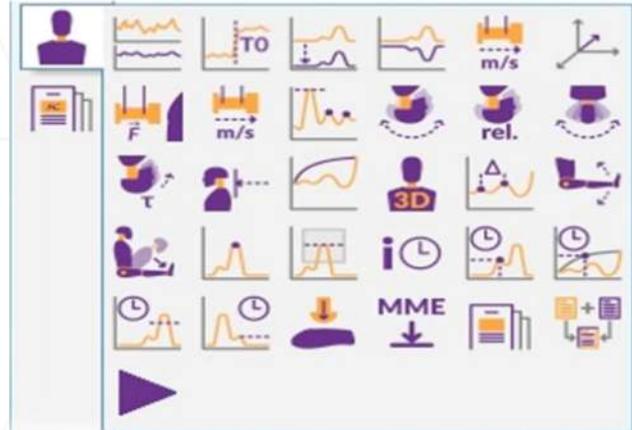
The use of the ATD-LabTech crash test dummy toolkit is intuitive, and the extensive functions can be carried out from the familiar DIAdem environment. The measurement channel selection and other parameters are set in the corresponding function dialogs. The industry-standard file formats are available for the import and export of the measurement data, which can be expanded upon customer request.

See pages below for all crash test dummies available for analysis

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All evaluations are carried out in accordance with the applicable laws and specifications of the crash test dummy manufacturers and legislators. Analyzes with different corridors for special tests.

Frontal Impact
- Hybrid III 5th Female
- Hybrid III 50th Male
- Hybrid III 95th Large Male
- Hybrid III 50th Male FAA
- Hybrid II 50th Male
- THOR 5th Female
- THOR 50th Male
- Free-Motion-Headform

Children
- CRABI 6-Month-Old Infant
- CRABI 12-Month-Old Infant
- CRABI 18-Month-Old Infant
- Hybrid III 3-Year-Old Child
- Hybrid III 6-Year-Old Child
- Hybrid III 10-Year-Old Child
- Q-Series (Q0, Q1, Q1.5, Q3, Q3s, Q6, QA, QB)
- P-Series

Side Impact
- SID-IIs 5th Female
- ES-2 50th Male
- ES-2re 50th Male
- WorldSID 5th Female
- WorldSID 50th Male

Rear Impact
- BioRID 50th Male

Pedestrian Headform
- Adult
- Child

Pedestrian Legform
- FlexPLI
- aPLI

Software & Data Acquisition, Continued

Dummy Connector Panel – DCP 3.2.0

The data-recorder is connected to a digital DTI, DTS, or nxt32 dummy via the dummy connector panel. The three interfaces are synchronized via a common test bench trigger signal. Two additional trigger outputs are also available. The connections are powered with the corresponding system voltages (DTI: 48V / 5A, DTS: 15V / 7A, NXT32: 30V / 5A). Fast data transfer to the recorder is guaranteed via LAN. The connection and data acquisition of the complete crash test dummies by plug-and-play is possible via the DTI interface. Communication to DTS components is the next logical step and is being developed. An integration of the NXT32 into the ATD-LabTech software and measurement technology is available on customer request.

Analog+DTI-Module – ADM 6.2.2

The Analog+DTI-Module is the interface to crash test dummies with integrated analog sensors as well as dummy components with DTI integration. Relevant sensors from the test bench are also connected to the recorded via this module.

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Analog+DTI-Module for Neck Pendulum – ADM 6.2.2-N

A modified, crash-proof variant of the ADM makes it possible to use this module integrated on to a neck pendulum.

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Data Acquisition for All Common Dummy Types

Whether a dummy is equipped with DTI or DTS measurement technology or has analog sensors, ATD-LabTech offers the innovative measurement solution. **It is possible to equip and operate the ATD-LabTech test benches in parallel with all the interfaces mentioned or as upgrades for existing equipment.**