▲ DEWESoft®

AEROSPACE SOLUTIONS

WELCOME TO THE DEWESOFT EXPERIENCE. ONE SOFTWARE, ONE HARDWARE, YOUR SOLUTION.

20 years ago, as young engineers we dreamed of creating a revolution in the world of measurement. We dreamed of creating data acquisition software that was versatile and powerful - and yet easy to use - something that didn't exist.

We are who we are because of you - our customers - working in the most advanced labs around the world. You had the same dream: you introduced us to the challenge that drives our passion for constant improvement, keeping our minds sharp and our spirits free.

IN PARTNERSHIP WITH YOU, WE BUILT SOLUTIONS THAT EXTENDED FAR BEYOND WHAT WE EVER IMAGINED WAS POSSIBLE TWO DECADES AGO. THANK YOU!

Today, we offer a variety of hardware and software solutions made just for you. And you're still our greatest asset. That will never change.
Tell us what you need and we will continue to push the limits.

Dr. Jure Knez
president and co-founder

DEWESOFT IS MORE THAN A BUSINESS

DEWESOFT IS OUR WAY OF LIFE

TOTAL SOLUTION

Dewesoft hardware and software forms a total solution for all test and measurement applications

MODULAR AND EXPANDABLE

Systems can be gradually expanded from one to thousands of channels for any measurement challenge

NO HIDDEN COSTS

Free lifetime software upgrades, no maintenance fees

AWARD WINNING DEWESOFT X3

One software for all measurement applications. Fast learning curve, no programming needed

VERSATILE AND EASY TO USE

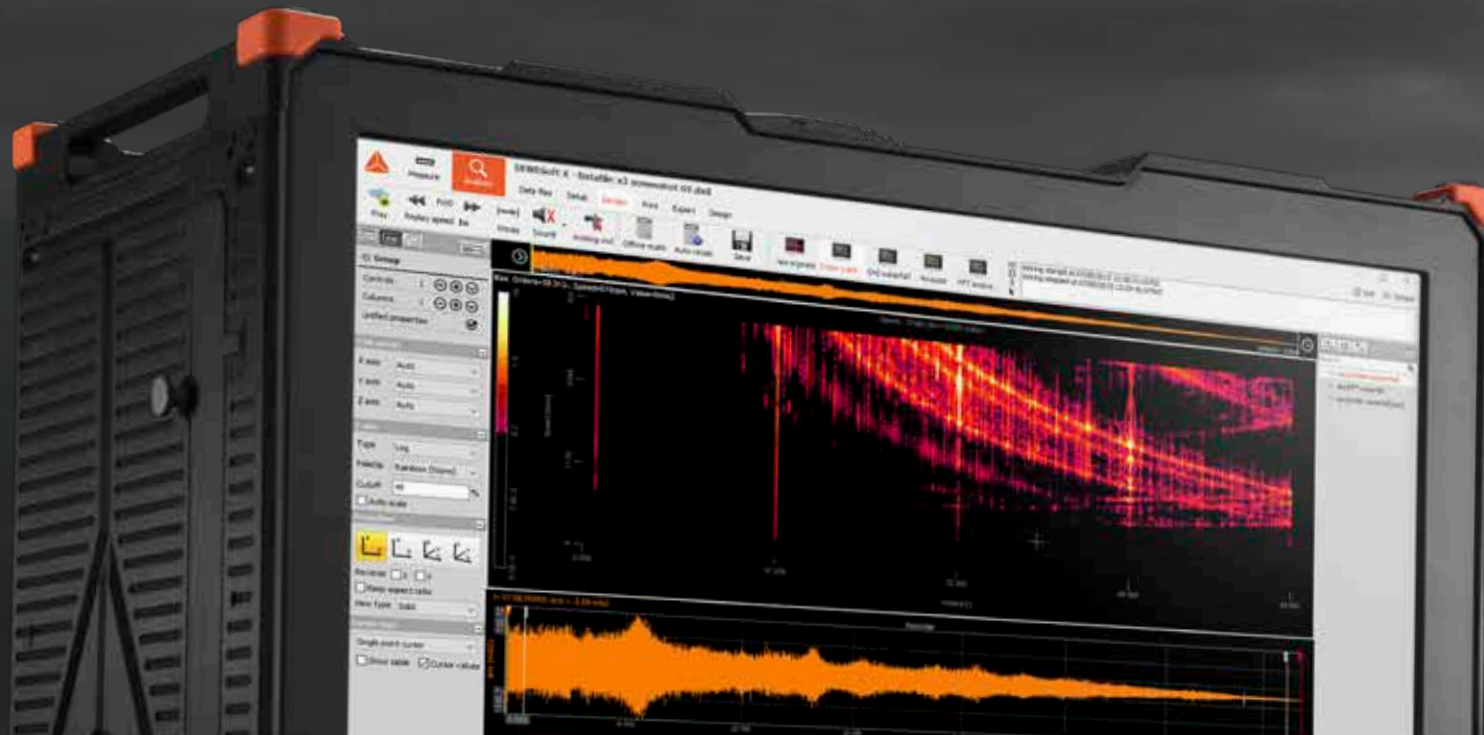Get your measurements in 30 seconds

PLUG AND PLAY

Any device, sensor or signal

DEEP IN FUNCTIONALITY

Used in the most advanced research labs around the world

FREE ONLINE COURSES

Learn how to measure and process data
with Pro Training

MEASURE SYNCHRONISED

Analog, digital, vehicle buses, navigation, video, data bus systems, outputs...

STORE EVERYTHING

High performance storing >500MB/sec, instant file loading, triggering, networked acquisition and cloud storage

VISUALISE

Extensive visual control library, flexible displays, optimized graphics

PROCESS AND ANALYZE

Extreme fast data review, advanced math libraries, power analysis, vehicle analysis, machinery diagnostics, acoustic

REPORTING AND EXPORT

Inbuilt PDF and paper reporting tool, wide variety of export format, screen video export

EXTEND

Sequencer, inbuilt C++ scripting, open interfaces for plugins, visual controls, export, DCOM, open network interface

SIRIUS® MOST FLEXIBLE DATA ACQUISITION SYSTEM EVER

FLEXIBLE CONFIGURATIONS as the system is available in many form factors from four to thousands of channels
HIGH DYNAMIC DualCoreADC® technology provides amazing dynamic range
HIGH ISOLATION High channel-channel and channel-ground isolation prevents ground loops

MODULAR

Most flexible single distributable slices with USB and EtherCAT® interface

SBOX

Synchronised, highly reliable data logger and powerful data processing computer

R4

Integrated solution with 4 SIRIUS slices and powerful SBOX computer in one unit with real time EtherCAT® slave interface

DualCoreADC® SLICES: dual 24 bit with 160 dB dynamic range, 200 kHz rate, each of 8 isolated amplifiers in a slice can be chosen from

HD SLICES: 24 bit, 200 kHz rate ADC; 16 channels per slice with

STG or STGM universal and strain gage amplifier

ACC or CHG for IEPE Accelerometer/microphone

HV for high voltage up to ±1200 V

LV for powered sensor inputs

HD STGS universal and strain gage amplifier HD LV powered sensor input

HD ACC for accelerometer/microphone; HD LV BNC for 100 V voltage input

R8/R8DB

Integrated instrument with 8 SIRIUS slices, powerful SBOX computer, optional 19" display (R8D) and batteries (R8DB) and real time EtherCAT® slave interface (R8rt)
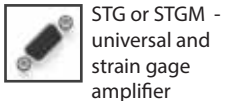
R1DB/R2DB

Small size instrument with embedded computer, 12" display and batteries

R3

Up to 3 SIRIUS slices in a rack mounted lab unit with standard easy-to-upgrade computer

HS SLICES: with 16 bit, 1 MHz rate ADC, each of eight isolated amplifiers in a slice can be chosen from

STG or STGM - universal and strain gage amplifier

ACC for dynamic pressure sensors CHG for combustion pressure

HV for high voltage up to ±1600 V

LV for high bandwidth current transducers

OPTIONAL INPUTS/OUTPUTS

Counter/encoder/digital IO with SuperCounter® patented technology perfectly synchronizes analog and counter angle data
Analog out 24 bit analog outputs, as a multi-channel function generator, can act as real time signal conditioning, as analog replay of data in analysis or as manual or automated control output, with output voltage levels of up to ±10V
CAN bus interface

KRYPTON® RUGGED SYSTEMS FOR HARSHEST ENVIRONMENTS

DISTRIBUTABLE DEVICES will bring data acquisition directly to the sensors

SINGLE CABLE with EtherCAT® interface up to 100m between devices for power, data and synchronization

MADE TO BE EXTREME IP67, dust proof, waterproof, 100g shock and vibration resistant, wide temperature operating range

KRYPTON®

Ultra rugged and distributable data acquisition devices from -40 to +85 °C operating range

KRYPTON® CPU

Compact, highly portable logger for data recording in harsh environments from -40 to +70 °C operating range

KRYPTON® 1 SERIES

Distributable measurements down to a single channel

WIDE VARIETY OF KRYPTON AMPLIFIERS:

8XTH, 16XTH isolated universal thermocouples module

4XLV, 8XLV isolated voltage input module

3XSTG, 6XSTG differential universal and strain module

8XRTD, 16XRTD amplifier for temperature

4XACC, 8XACC IEPE accelerometer amplifier Sync junction with optional GPS

8X, 16X DI / DO Digital I/O module

1XSTG isolated universal and strain amplifier

1XACC isolated IEPE accelerometer amplifier

1XLV DSUB powered sensor input

1XHV isolated high voltage module

4XDI, 4XDO four channel digital I/O amplifier

1XAO analog output

1xCNT SuperCounter® module

WATERPROOF SIRIUS® AND SBOX

SIRIUS DAQ technology in rugged chassis, DualCoreADC®, high dynamic range 160 dB, high isolation, SuperCounter®

SBOXwe

Ultra rugged and powerful
data logger from -40 to +50 °C

SIRIUSIwe

High-end signal conditioning
in rugged form factor
from -40 to +60 °C

CONFIGURATION EXAMPLES:

SIRIUSiwe 8XSTGM 8-channel, universal strain gage amplifiers
SIRIUSiwe 6XSTGM,2XSTGM+ 8-channel universal strain gage amplifier with two counter inputs
SIRIUSiwe 16XHD STGS 16 channel universal strain gage input

IOLITE® DATA ACQUISITION AND CONTROL FRONT-END FOR INDUSTRIAL APPLICATIONS

DUAL EtherCAT® INTERFACE buffered data acquisition bus and real time control bus - at the same time
REAL TIME CONTROL AND FEEDBACK MONITORING for troubleshooting of real time applications
GREAT PRICE/PERFORMANCE RATIO for measurement, test bed and production applications
REDUNDANT POWER SUPPLY together with dual interface provides maximum system reliability

IOLITEr

19" rack version with up to twelve slots, dual EtherCAT® interface and redundant power supply

IOLITEs

Sirius style chassis with up to eight slots, dual EtherCAT® interface and redundant power supply

IOLITE 6xSTG	Universal 6 channel differential voltage, current and Full/Half/Quarter bridge input with DSUB9 connector. Compatible with DSI adapters for IEPE, CHG, 200V, RTD, TH measurements.
IOLITEi 8xTH	8 channel-channel isolated universal thermocouple input module with mini TC connector. Accepts K, J, T, R, S, N , E, C, B thermocouple types.
IOLITEi 32xDI	32 channel isolated digital input module with screw terminal connection.
IOLITEi 32xDO	32 channel digital output module with screw terminal connections and integrated watchdog function.
IOLITEi 8xRTD	8 channel-channel isolated PTx temperature, resistance and voltage with Lemo 0B connector.

INSTRUMENTS AND ADAPTERS

MINITAURs
Versatile mixed signal data acquisition instrument and multichannel data logger with cutting edge technology at an attractive price.

DEWE-43A
Award winning versatile data acquisition device with unmatched price/ performance ratio.

SIRIUS MINI
4 channel ACC Sirius module, perfect for mobile DSA/NVH applications.

PCM FS2
Dual frame sync IRIG Class II decommutator with up to 40 MBit data rates.

CAN INTERFACES
2, 4 and 8 channel USB CAN interfaces with support for XCP/CCP, OBDII, J1939, DBC and CAN transmit.

DS-DISP12
Rugged, high resolution LED display for mobile, in-vehicle test and measurement applications.

DS-BP2I, DS-BP4I
Hot swappable Li-ion battery solutions with least weight per power (90 Wh for BP2i and 180 Wh for BP4i).

DSI ADAPTERS
Will turn your channel in truly universal amplifier for 200V, thermocouple, RTD, IEPE, charge, current or LVDT.

DS-CAM
A wide choice of GigE video cameras acquires high speed video fully synchronized with other data.

GPS/IMU DEVICES
High accuracy positioning systems provide time, position and velocity information.

SENSORS

ACCELEROMETERS: Single axis, triaxial accelerometers and impulse hammers for vibration measurement and structural modal analysis.

CURRENT CLAMPS: High-accuracy sensors for AC and DC current measurement. From current clamps, Rogowski coils to high-precision zero flux current transducers.

ANGLE SENSORS: A range of tacho and tape angle sensors can be used in applications like order tracking, rotational and torsional vibrations.

COMPONENT TESTING
Data recording, FFT analysis, power analysis, order tracking, balancing, modal testing, fatigue analysis

GROUND TELEMETRY
Chapter 4 PCM, Chapter 10, iNET support, full software decom, fully synchronized with ground measurements

SATELLITE TESTING
Modal analysis, sine reduction, fatigue analysis, temperature stress testing

WIND TUNNEL TESTING
Large channel counts, 24-bit resolution, integration with real-time systems, synchronized video recording

YOUR SOLUTION FOR COUNTLESS

ENGINE TESTING

Large number of channels >1000, extreme storing speeds, real time data for test bed control systems

EXPERIMENTAL FLIGHT TESTING

Data recording, multiple vehicle tracking, Arinc 429, MIL-STD 1553, vibration analysis, PCM output
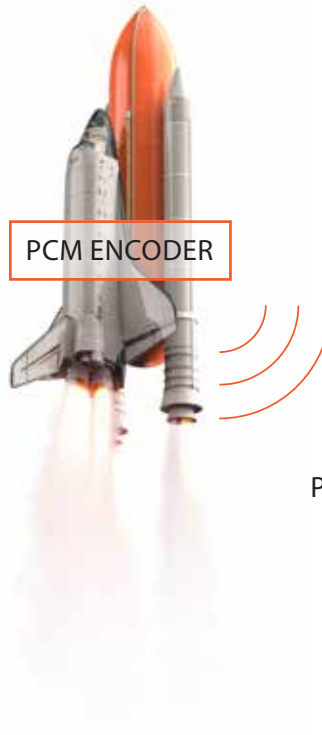
LAUNCH PAD INSTRUMENTATION

Rugged systems for extreme environment, distributed data acquisition, perfect synchronization

AEROSPACE APPLICATIONS

TELEMETRY IRIG CHAPTER 4 PCM

DECODE AND VISUALIZE DATA FROM TELEMETRY IRIG CHAPTER 4 PCM COMPLIANT DATA INTERFACES

DEWESoft X

PCM ENCODER

PCM TELEMETRY LINK

BIT SYNC

SOFTWARE DECOM
A software decommutator offers full range of decoding for normal commutated, super and sub commutated parameters, embedded frames, fast switching of decommutator.

PCM TELEMETRY FRAME SYNC
The SIRIUS PCM-FS2 instrument is a dual frame sync IRIG Class II decommutator with up to 40 MBit/s data rates.

PCM ENCODER
Dual PCM output up to 40 MBit/s in real time from DEWESoft analog data, Chapter 10, simulated data and other sources.

INDUSTRY STANDARD
Dewesoft decom is widely used in most advanced telemetry labs around the world working closely together with major vendors of flight recorders and ground equipment.

IRIG CHAPTER 10 AND INET TELEMETRY

COMPLETE IRIG-106 CHAPTER 10 ACQUISITION AND ANALYSIS SOLUTION FOR ANY KIND OF DATA SOURCE IN THE MARKET

SENSORS

ENCODER

CHAPTER 10

DEWESoft X

GROUND
STATION
RECORDER

PCM STREAM
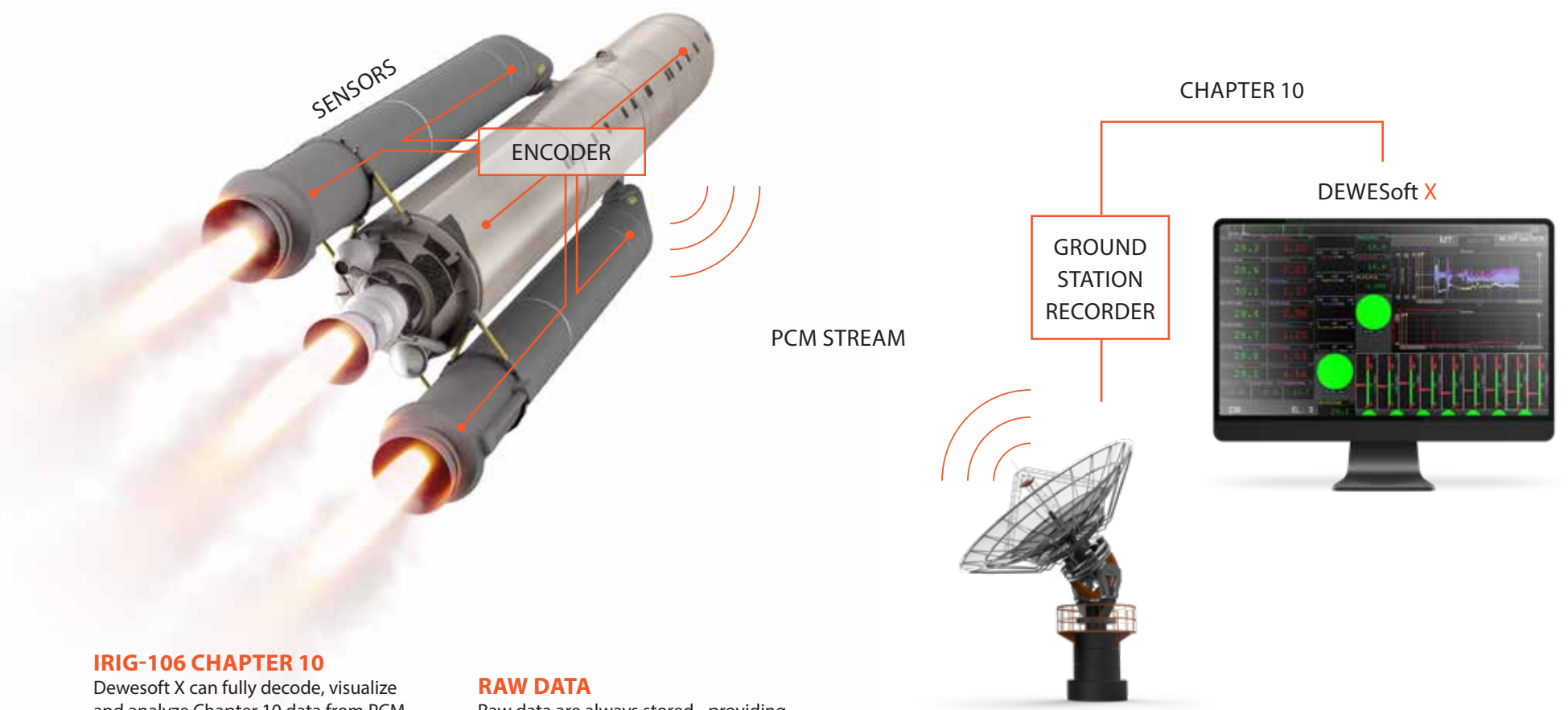
IRIG-106 CHAPTER 10
Dewesoft X can fully decode, visualize and analyze Chapter 10 data from PCM, analog, Video,MIL-STD-1553, ARINC-429, serial, Ethernet, CAN and GPS streams inside the CH10.

iNET
Data decoding from up-to-date telemetry standards.

RAW DATA
Raw data are always stored - providing optimal possibilities for offline data processing.

ONLINE AND OFFLINE MODE
Dewesoft X can read and process stored CH10 files as well as connect live to Ethernet CH10 stream during the mission.

ONE SYSTEM SOLUTION
A single system solution with the integrated digital receiver and PCM processing.

SYNCHRONIZED ACQUISITION
All data sources are synchronized down to microsecond accuracy using GPS or IRIG time.

TELEMETRY REAL TIME FLIGHT DISPLAYS

REAL TIME DISPLAYS IN DEWESOFT FOR ALL DATA COMING INTO MISSION WORKSTATIONS

ON-BOARD
MEASUREMENT
UNIT

VIEW CLIENT

NET OPTION INTERFACE
Client/Server configuration to allow an unlimited number of workstations to connect to one server.

STANDARD VISUAL DISPLAYS
Real time horizontal and vertical recorders, scopes, FFT, Digital Meter, Analog meter, bar graphs, XY Plots, Overload indicators.

ADVANCED AEROSPACE WIDGETS
Attitude indicator, Discrete text displays, Discrete and static image displays, 3D model and terrain mapping, video, gps 2D mapping and telemetry video displays.

ONLINE AND OFFLINE MODE
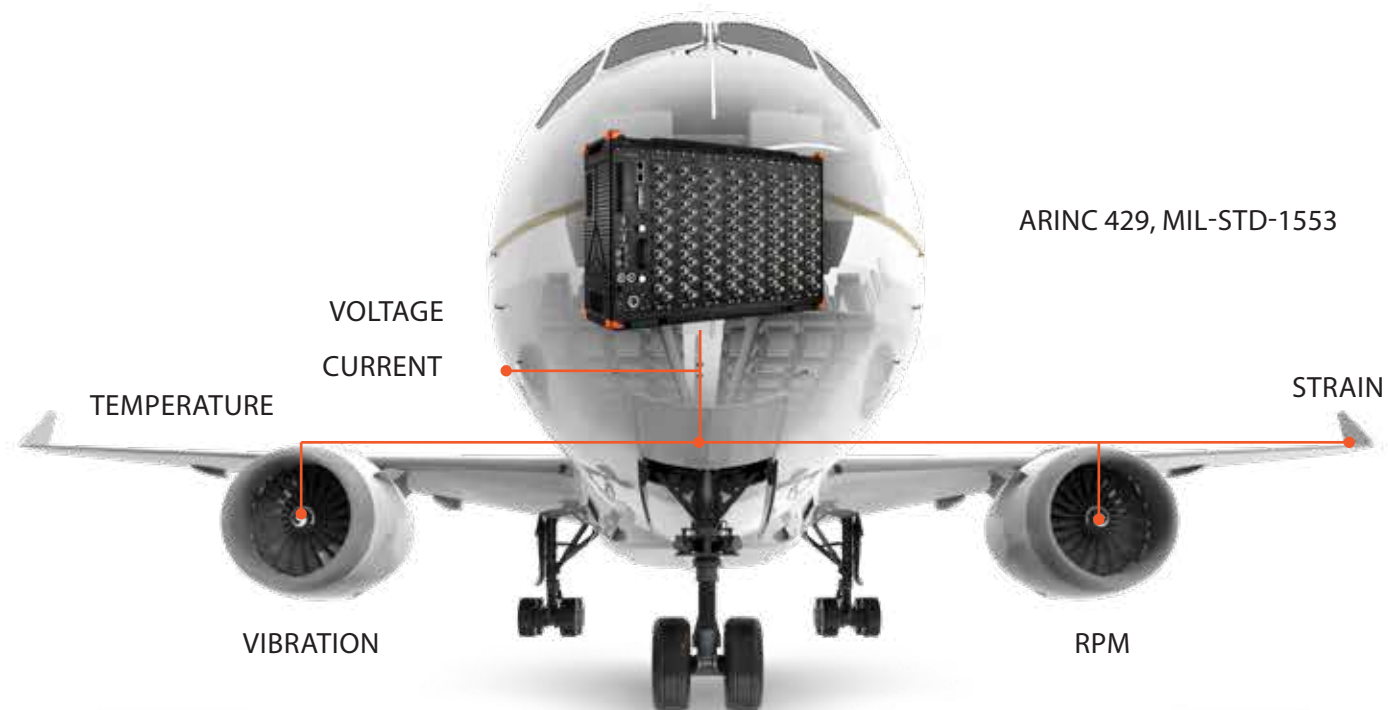DEWESoft X allows for same display capabilities in real time and post analysis.

GROUND STATION DISPLAYS
Single computer can run multiple monitors, multiple view clients can visualise the data.

EXPERIMENTAL FLIGHT AND GROUND TESTING

DEWESOFT OFFERS HARDWARE AND SOFTWARE FOR TO TEST ANY VEHICLE

ARINC 429, MIL-STD-1553

VOLTAGE

CURRENT

STRAIN

TEMPERATURE

VIBRATION

RPM

UNIVERSAL
Suitable for ground and experimental air (high G testing, performance testing) applications.

VERSATILE HARDWARE
Synchronous acquisition of analog voltage, strain, acceleration, temperature, digital, counter, video, 2 cm RTK GPS and IMU sensor, ARINC-429 and MIL-STD-1553, CAN and many others – fully synchronized.

REAL TIME ANALYSIS
A wide variety of data analysis tools provide real-time and post-mission capabilities. Among other applications, Dewesoft offers human body vibration analysis according to ISO 5349, ISO 8041, ISO 2631-1 and ISO 2631-5.

AVIONICS AND 3D MAP TOOL
Extremely powerful map and vehicle visualization tool supports mapping with satellite and height maps, vehicle visualization with yaw, pitch and row, different view angles and path tracking.
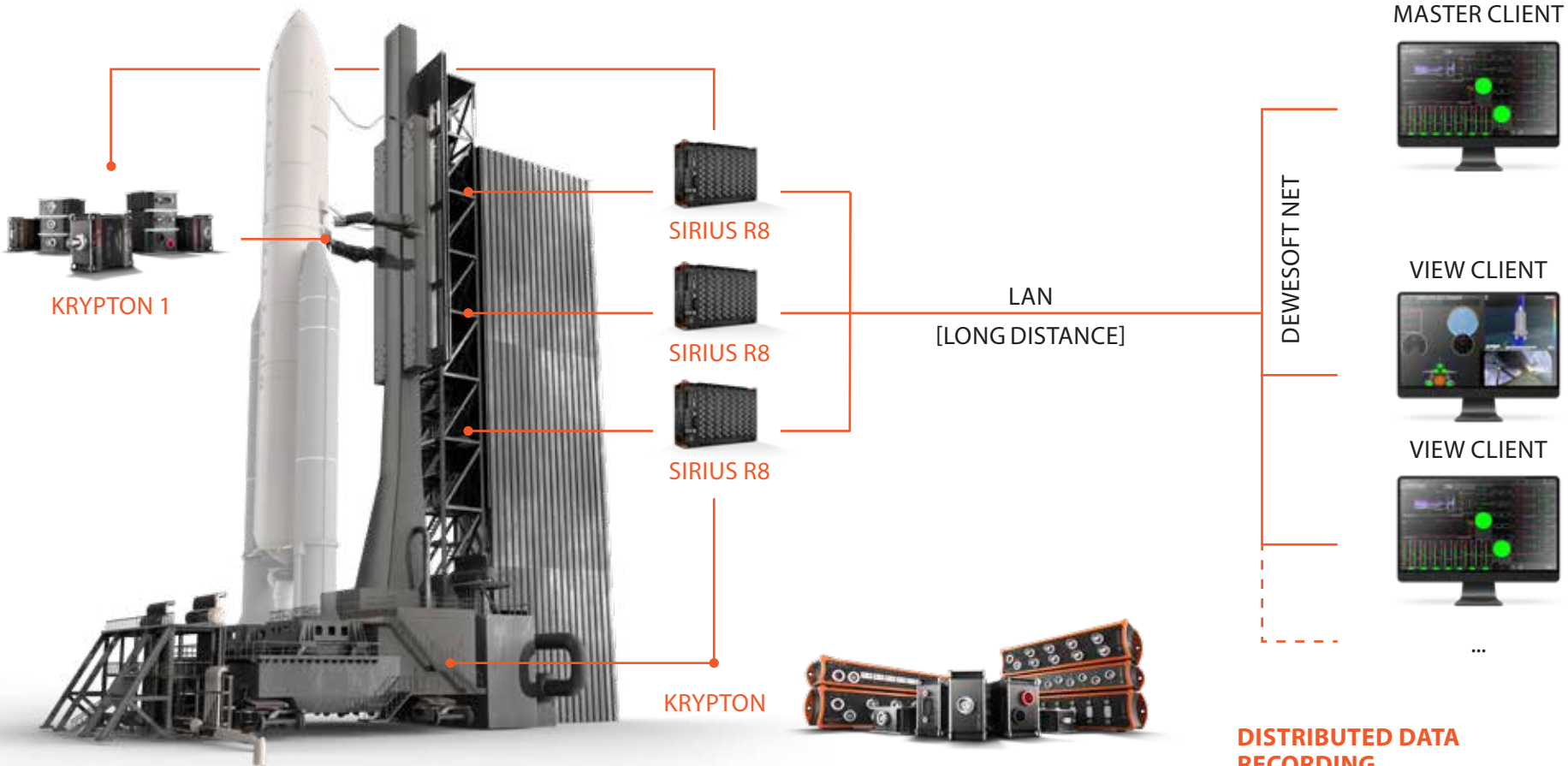
POLYGON
Easy definition of test with math analysis polygon with multiple vehicles, track, cones, gates and other static objects for all kinds of handling and flight dynamic testing.

LAUNCH PAD INSTRUMENTATION REAL TIME MONITORING & RECORDING

DEWESOFT SYSTEM ARE WIDELY USED FOR DATA ACQUISITION FOR LAUNCH PLATFORMS ALL AROUND THE WORLD

MASTER CLIENT

VIEW CLIENT

VIEW CLIENT

KRYPTON 1

SIRIUS R8

SIRIUS R8

SIRIUS R8

LAN
[LONG DISTANCE]

DEWESOFT NET

...

KRYPTON

DISTRIBUTED DATA RECORDING
Virtually unlimited number of channels, synchronized to any external time source. Example: install systems with small or large channel counts at different locations (launch gantry, control room, etc.) and stream data in real time to a central client. Data are also stored locally in case of network fault, and can be re-synchronized with the central data.

UNLIMITED CHANNEL COUNT
Dewesoft systems can acquire data from thousands of channels from any combination of sensors – even at extremely high sample rates.

RUGGED SYSTEMS
Dewesoft systems are qualified to be used in most rugged conditions with high temperature, shock and vibration.
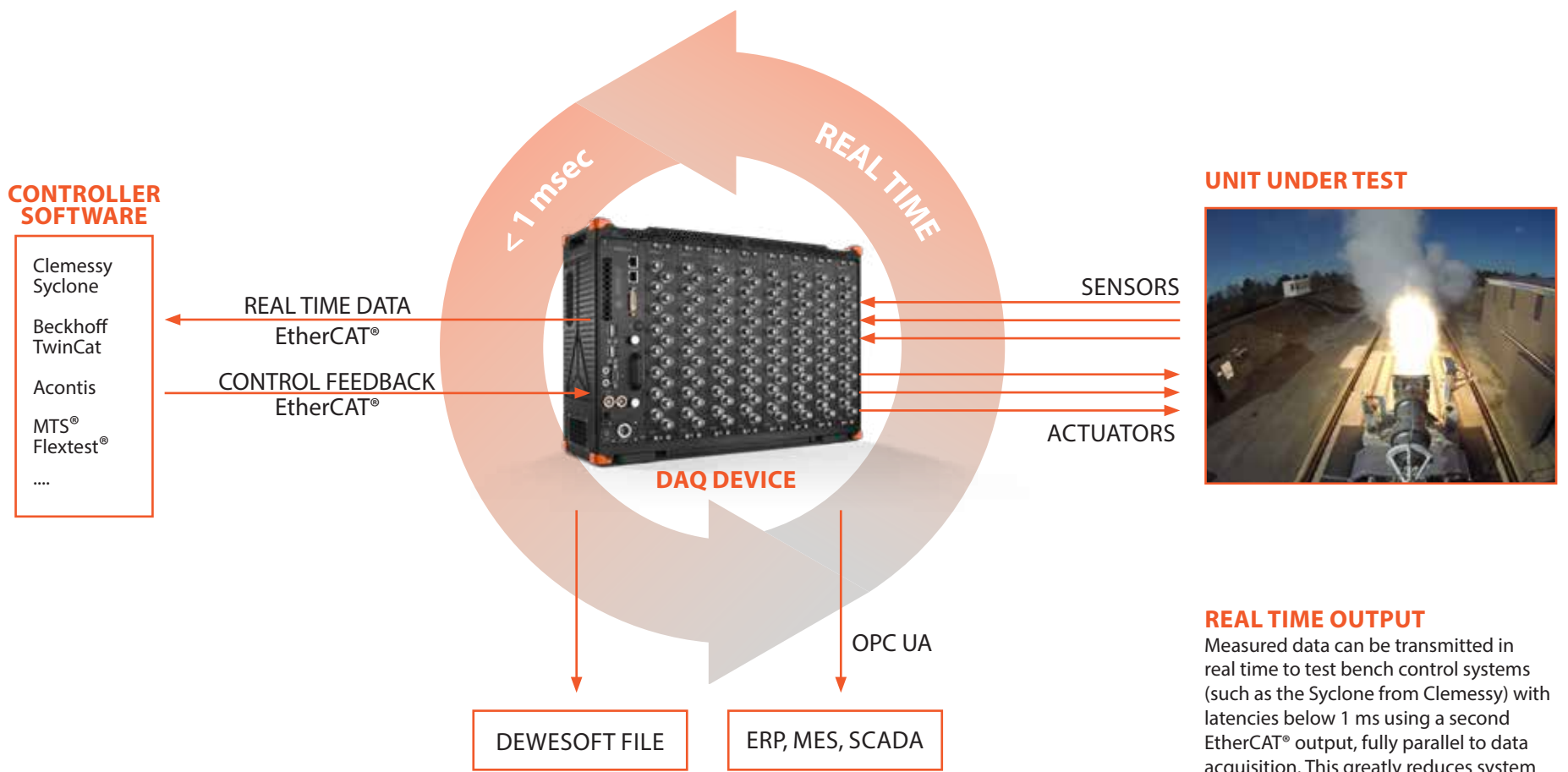
REAL TIME VIEW CLIENTS
Data can be observed in real time by any number of view clients, located anywhere on the network.

AIRCRAFT AND ROCKET ENGINE TESTING

DEWESOFT PROVIDES DATA ACQUISITION, CONTROL SYSTEM FRONT-END FOR ROCKET AND AIRCRAFT PROTOTYPE AND PRODUCTION TESTING

< 1 msec

REAL TIME

CONTROLLER SOFTWARE

Clemessy Syclone

Beckhoff TwinCat

Acontis

MTS® Flextest®

....

REAL TIME DATA
EtherCAT®

CONTROL FEEDBACK
EtherCAT®

DAQ DEVICE

UNIT UNDER TEST

SENSORS

ACTUATORS

OPC UA

DEWESOFT FILE

ERP, MES, SCADA

REAL TIME OUTPUT
Measured data can be transmitted in real time to test bench control systems (such as the Syclone from Clemessy) with latencies below 1 ms using a second EtherCAT® output, fully parallel to data acquisition. This greatly reduces system complexity and costs - and improves results.

FLEXIBLE CONFIGURATION
More than 1000 simultaneous channels – and with extreme storage speeds.

TIME SAVING
By using one system for data acquisition and control, the time required to setup test bench is reduced typically by 40% compared to traditional methods.

ALL-IN-ONE SYSTEM
Performance testing, vibration, noise, order tracking, balancing, power analysis, thermal and stress testing – these are just a few Dewesoft application areas.

DATA MONITORING
Test operators can monitor the tests from a safe distance using Dewesoft NET distributed technology.

COST SAVING
Conditioned data are sent digitally, reducing complexity and eliminating potential errors compared to the old-fashioned "sensor input > analog output > analog input" method.

HIGH SPEED AND TRANSIENT RECORDING

DEWESOFT CAN ACQUIRE HIGH SPEED DATA FROM TRANSIENT EVENT INCLUDING LIGHTNING, POWER SUPPLY INTERRUPTION, BLAST AND EXPLOSION TESTING
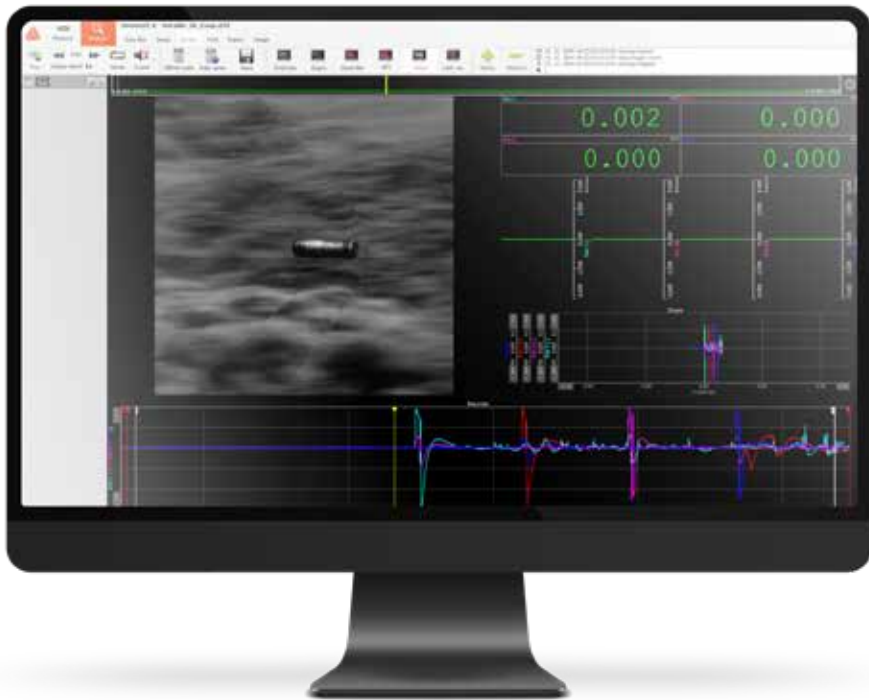
STREAMING
When there's no way to predict the trigger event in advance, data can be streamed continuously to disk, at speeds up to and beyond 500 MB/sec! This is also ideal for unrepeatable events like spacecraft launch.

ROBUST, ISOLATED CONDITIONING
Dewesoft signal conditioners acquire voltage, IEPE, charge, strain, high voltage or current signals – and all fully isolated from other channels and ground.

BALLISTICS AND MUNITIONS TESTING
These applications typically require synchronization of a variety of data sources, including pressure sensors, and other sensors distributed at the impact site. Dewesoft can synchronize remote and local measurements, and even integrate high-speed video with the data.

TRANSIENT RECORDING
Advanced triggering capabilities in every Dewesoft system allow you to capture any event.

VARIOUS SOURCES
Dewesoft can acquire high speed video and other data sources with perfect synchronization.

COMPONENT AND WIND TUNNEL TESTING

DEWESOFT OFFERS WIDE VARIETY OF SOLUTIONS FOR COMPONENT TESTING.

BUS SYSTEM TESTS
Analysis of data from vehicle bus systems (ARINC, etc.).

ONE SYSTEM FOR FIELD AND LAB TESTING
The same system can be used in your test bench AND for troubleshooting in the field. No one else offers this kind of flexibility in the same instrument.

PORTABLE, RACK AND HIGH SHOCK SYSTEMS
Built to last, Dewesoft hardware works where other systems simply don't.

MECHANICAL PARAMETERS
Measurements of deformation, fatigue, vibration, torque, RPM, displacement, and much more.

ADVANCED PROCESSING
NVH, Sound analysis, Rotating machinery analysis, Structural dynamics, Power analysis and much more.

WIND TUNNEL TESTING
large channel count systems perfectly synchronized, applications in subsonic, transonic, supersonic and hypersonic applications

ELECTRICAL PARAMETERS
Measurement of high voltage, current, resistance, power, energy, efficiency.

TEST BED INTEGRATION
The EtherCAT® slave port can feed the data to any EtherCAT® master controller in real-time. Dewesoft offers very easy integration with any control system using a single Ethernet interface.

FFT / OCTAVE ANALYZER

FREQUENCY AND OCTAVE ANALYSIS IS THE BASIS OF ANY NVH TASK. THE FFT AND OCTAVE ANALYZER IN DEWESOFT SOFTWARE IS THE IDEAL TOOL FOR PREDICTIVE MAINTENANCE, STRUCTURAL ANALYSIS, AND SOUND & VIBRATION ANALYSIS

RESOLUTION UP TO 1/24 OCTAVE

For deep analysis of data, we provide narrow band analysis down to 1/24th octave.

FFT WITH ANY LINE RESOLUTION

Selectable line resolution up to 64,000 lines for most demanding tasks.

FREQUENCY SOUND WEIGHTING

Standard frequency weighting curves (A, B, C, D and Z) can be applied directly in the frequency domain for sound analysis.

FFT CURSORS AND MARKERS

Dewesoft FFT display includes maximum marker, free marker, zoom marker, sideband marker, and harmonic marker.

ADVANCED MATH

Autospectrum, cross spectrum, complex spectrum, waterfall spectrum, cepstrum (for bearing faults, speech processing), two sided full FFT (for rotor whirl analysis), STFT (for non-stationary signals), envelope detection with bearing database (for bearing fault analysis).

FREQUENCY AVERAGING

Block history with linear, peak, exponential averaging or overall calculation is available.

TRUE OCTAVE ANALYSIS

True octave filters exactly represents the filter sets defined by the IEC 61260 standards and give the user real time response for vivid live visualization of data, crucial for advanced acoustic analysis.

SOUND LEVEL METER/POWER/INTENSITY ACOUSTICS

CERTIFIED COMPLIANCE WITH INTERNATIONAL STANDARDS ENSURES MAXIMUM ACCURACY AND EXTREMELY HIGH DYNAMIC RANGE. NO MATTER WHICH KIND OF ACOUSTICS MEASUREMENT YOU NEED TO DO, OUR SLM PLUG-IN WILL BE AT THE HEART OF IT

SUPPORTED STANDARDS

Sound level meter: EN IEC 61672 Class 1, Sound Power: ISO 3741,ISO 3743-1, 3743-2, ISO 3744, ISO 3745, ISO 639-3,ISO 639-4, ISO 639-5 and ISO 639-6, Sound Intensity: ISO 9614-1, ISO 9614-2.

ADVANCED ANALYSIS - SIMULTANEOUSLY

Predefined standard frequency weighting (A, B, C, D, and Z), time weighting (Fast, Slow or Impulse), sound pressure level, equivalent, peak, minimum & maximum sound pressure levels, sound energy, impulsivity of sound, statistical noise level (LAF1, 5, 10, 50, 90, 95 and 99 % classes of values) are all available at the same time.

UNMATCHED FLEXIBILITY

SLM supports measurements in either air and can be combined with all other physical measurement parameters, vehicle bus systems, video, GPS and other math to build a thorough image of your entire measurement.

HIGH DYNAMIC RANGE

High-class data acquisition hardware with 160 dB dynamic range in time and frequency domain allows direct input of IEPE compatible microphones with support for TEDS automatic recognition. Scalable for any number of microphones. Dewesoft software supports easy microphone calibration using an external calibrator.

LAB TESTING/FIELD TESTING

Dewesoft systems are portable and rugged - so you can use them both in the lab for component and system integration testing, and in the field for landing/takeoff noise measurements, for example.

RICH VISUALIZATION

Flexible displays offering digital meters, analog bars, time domain recorders, narrow band FFT and octave analyzers can be freely combined to show your SLM data in real time as well as in post processing.

ORDER TRACKING/TORSIONAL VIBRATION

ROTATING MACHINERY

ORDER TRACKING IS THE PERFECT TOOL FOR ANALYZING THE CONDITION OF ROTATING MACHINES: RESONANCES, STABLE OPERATION POINTS, DETERMINING CAUSE OF VIBRATIONS – IT DOES IT ALL. YOU CAN COMBINE ORDER TRACKING WITH OUR POWERFUL TORSIONAL VIBRATION MODULE, AS WELL AS OTHER MATH MODULES SUCH AS OUR ENGINE COMBUSTION ANALYZER AND OUR ELECTRICAL POWER ANALYZER

PROXIMITY PROBES

RPM SENSOR
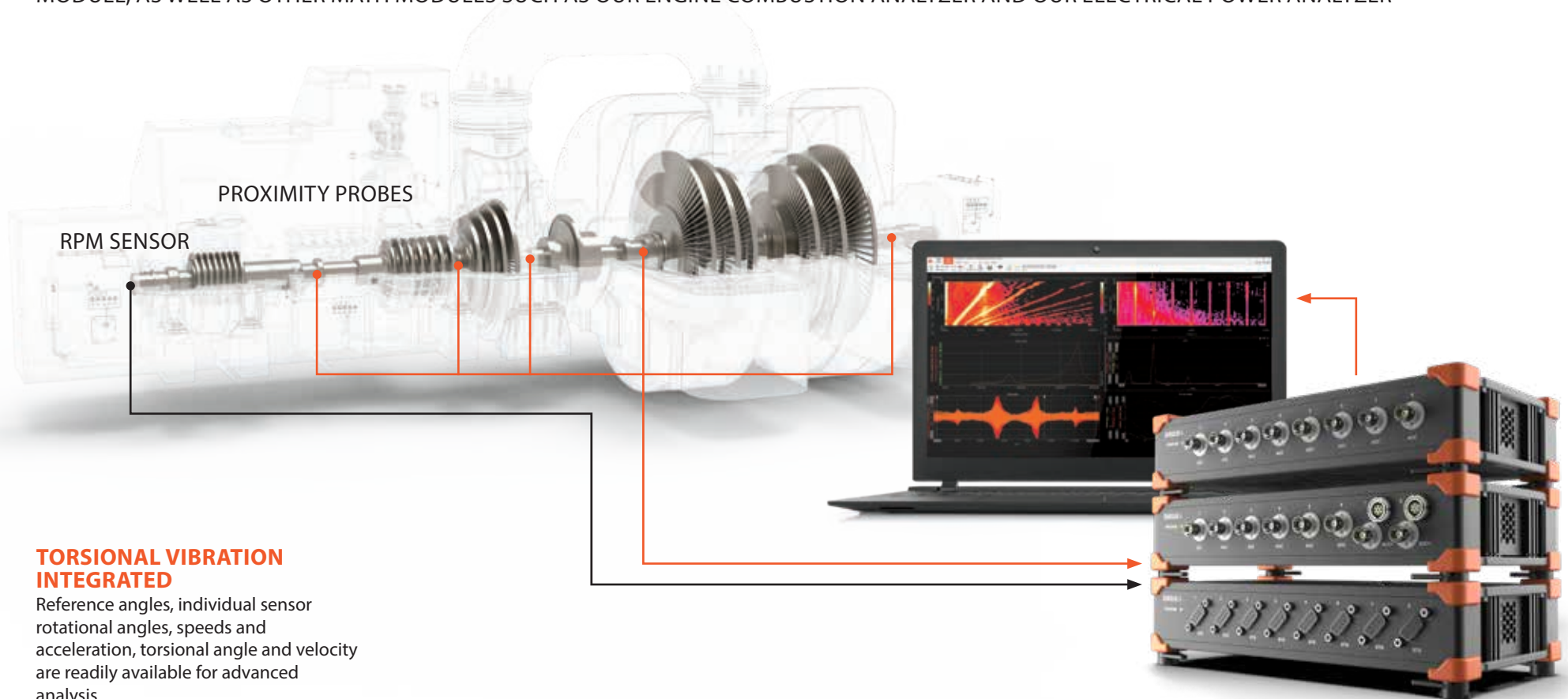
TORSIONAL VIBRATION INTEGRATED
Reference angles, individual sensor rotational angles, speeds and acceleration, torsional angle and velocity are readily available for advanced analysis.

TIME, FREQUENCY AND ORDER DOMAIN - AT ONCE
High sample rates and our advanced alias-free resampling technique ensures that data is available in all three domains (time, frequency and order) – everything at the same time in one screen and data file, perfectly synchronized.

ANGLE SENSOR SUPPORT
All angle sensors from tacho, encoder, geartooth, gear tooth with missing or double teeth, tape sensors and others are supported to perfectly determine angle and rotational speed with 10 nsec resolution using Dewesoft's patented SuperCounter® technology.

ADVANCED ORDER TRACKING MATH
Order and time domain harmonics can be extracted with amplitude and phase, available versus rotational speed or time in run-up or coast-down modes.
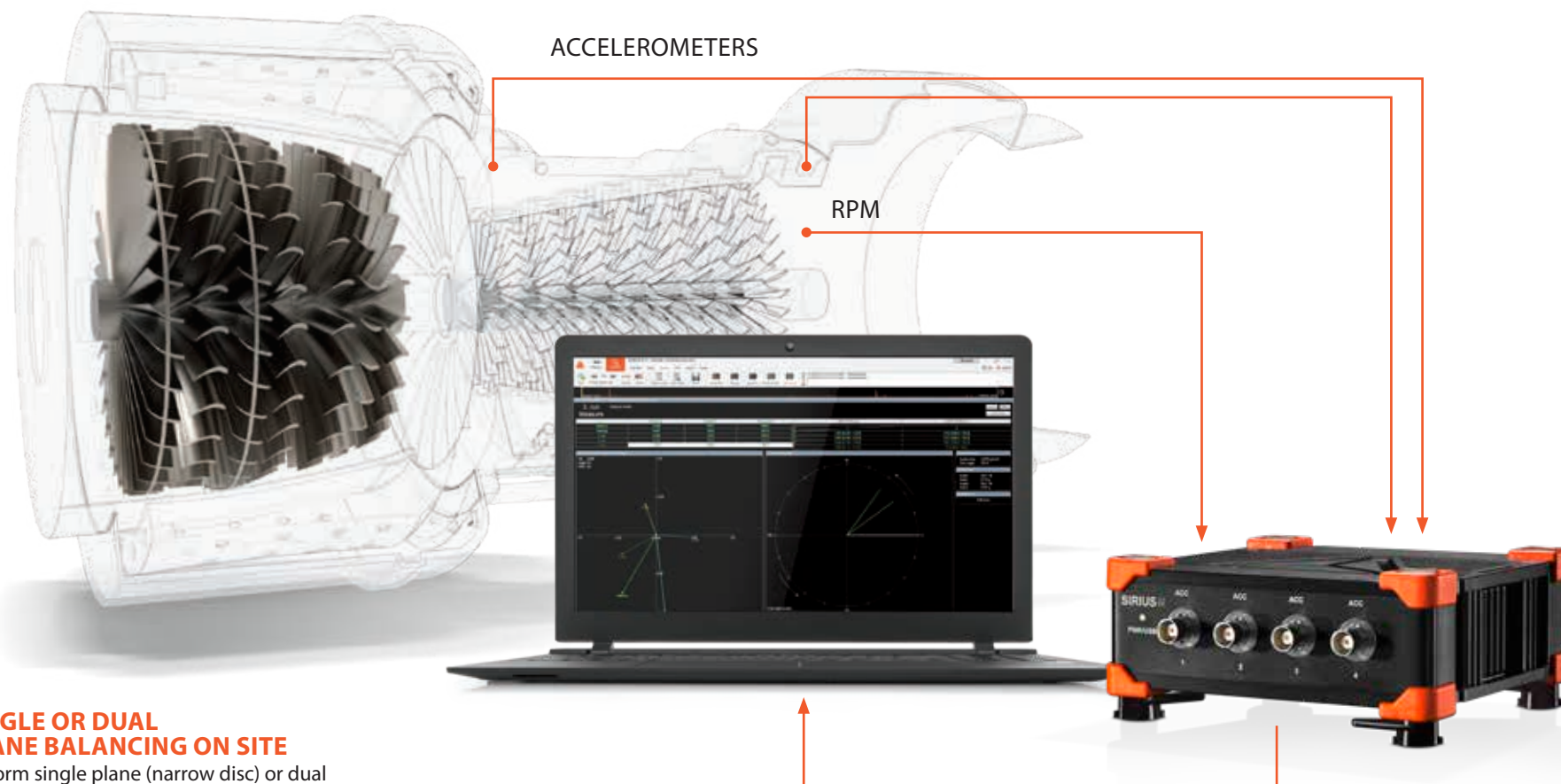
RICH VISUALIZATION
3D frequency and order plots provide you with the tools to determine the health of the machine under test. Nyquist, Bode and Campbell plots are available for data presentation. Orbit analysis with raw or order view is ideal for turbo-machinery analysis.

BALANCING

BALANCED ROTORS ARE ESSENTIAL FOR THE SMOOTH OPERATION OF ROTATING MACHINERY. IMBALANCE WILL CREATE HIGH VIBRATIONS, REDUCING MACHINE LIFE AND CAUSING MATERIAL DEFECTS. WITH OUR EASY-TO-USE TOOL YOU CAN BALANCE YOUR SYSTEM IN PLACE, ELIMINATING DOWN-TIME

ACCELEROMETERS

RPM

SINGLE OR DUAL PLANE BALANCING ON SITE
Perform single plane (narrow disc) or dual plane (long shaft) balancing.

RICH VISUALIZATION
Results from all runs are displayed to support decision for the next steps. Live visualization of unbalance vector for judging the stability of the measurement. RPM display has color indicator to determine in-out range.

SIMPLE STEP-BY-STEP PROCEDURE
Guidance through the balancing steps for flawless operation including setup of angle sensor with live preview. Multiple modules can be combined for multi axis balancing to save time and improve the quality of balancing.

WEIGHT SPLITTING
Adds possibility to split needed balancing weight into equidistantly spaced points, for example holes on the rotor.
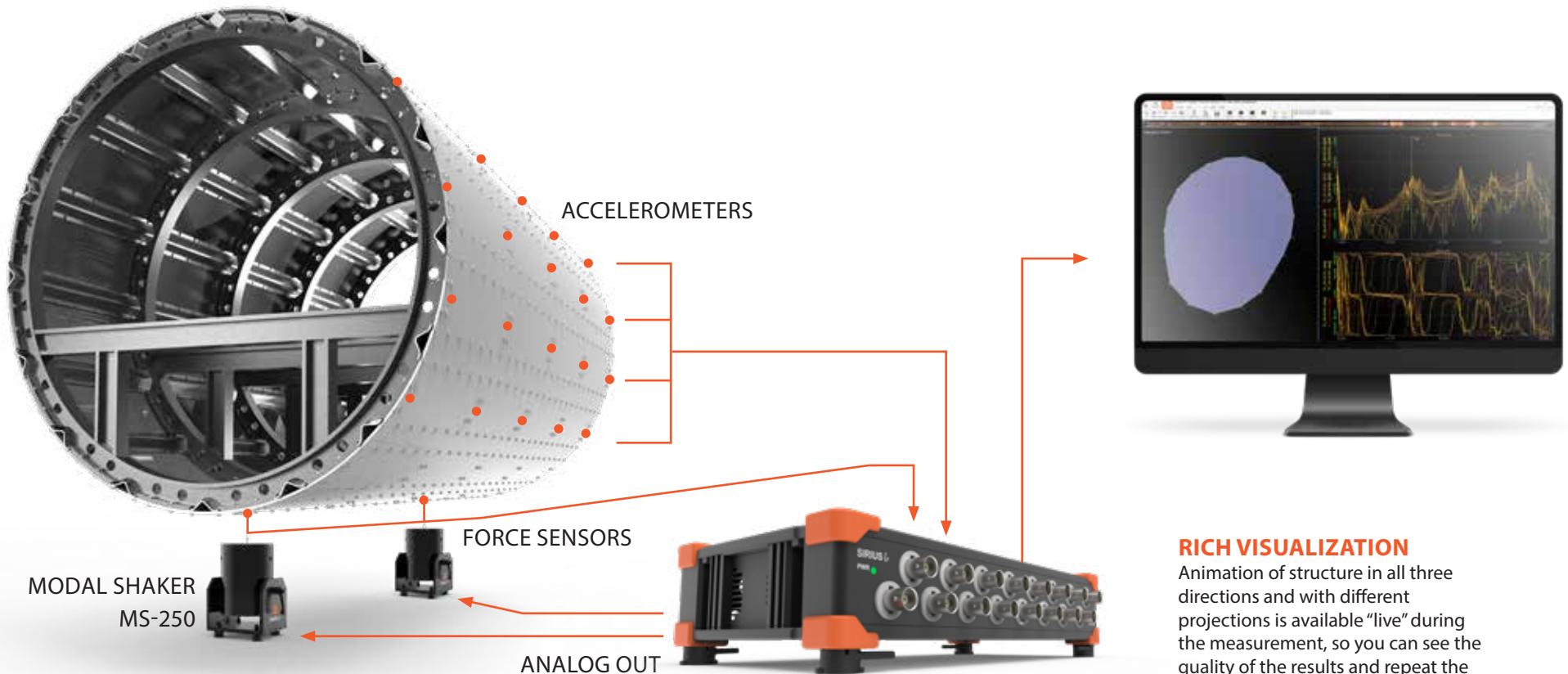
STORAGE OF INFLUENCE VECTOR
Influence vectors can be stored that the test run is not needed for repetitive balancing of the same machine.

MODAL ANALYSIS/SINE REDUCTION ANALYSIS

STRUCTURAL DYNAMICS

MODAL TESTING IS INDISPENSABLE TOOL FOR FINDING THE NATURAL FREQUENCIES AND MODE SHAPES OF STRUCTURES. THE DEWESOFT DSA SUITE OFFERS EASY OPERATION AND QUICK SET-UP WHILE PROVIDING RICH VISUALIZATION AND ANIMATION OF RESULTS

ACCELEROMETERS

FORCE SENSORS

MODAL SHAKER MS-250

ANALOG OUT

RICH VISUALIZATION
Animation of structure in all three directions and with different projections is available "live" during the measurement, so you can see the quality of the results and repeat the measurement of any point. Modal circle tool determines the exact resonance and calculates viscous or structural damping factor.

UNV IMPORT/EXPORT
Geometry can be created either using our built-in tool editor, or imported via UNV file. All data, from the raw time domain data to auto spectrums and FRFs, can be exported to the standard UNV file format.

SHAKER OPERATION MODE
In combination with the built-in function generator module, the system allows many types of excitation, from fixed sine with 1 mHz resolution, swept sine, random, step sine, chirp, burst and others.

IMPACT HAMMER MODE
Allows grouping, rejecting and repeating measurement points. Multiple reference and excitation points are supported. Moveable excitation and response points allows you full flexibility when performing measurements.

ADVANCED MATH
Operating deflection shapes (ODS), mode indicator functions (MIF), sine reduction (COLA) analysis are fully implemented. Operational modal analysis (OMA) and time domain ODS are available via tight integration with an external software package.

SHOCK RESPONSE SPECTRUM (SRS)

MECHANICAL SHOCK PULSES ARE OFTEN ANALYZED IN TERMS OF THE SHOCK RESPONSE SPECTRUM. THE SHOCK RESPONSE SPECTRUM ASSUMES THAT THE SHOCK PULSE IS APPLIED AS A BASE INPUT TO AN ARRAY OF INDEPENDENT SINGLE-DEGREE-OF-FREEDOM SYSTEMS

DAMPING/QUALITY FACTOR
Selection of damping ratio or quality factor can be easily updated also in offline mode.

EASY SETUP
The sensors and the system setup is fast and simple.

ADVANCED MATH
All relevant composite/maximax, primary, residual are calculated; results in frequency domain spectrum can be shown as acceleration, velocity or displacement.

SELECTABLE FREQUENCY SPAN
Freely definable calculation range for the frequency spectrum.

DATA EXPORT
Data can be exported in virtually any data format used for NVH analysis.

POWER ANALYSIS SYSTEM TESTING

DEWESOFT POWER ANALYZERS ARE USED IN A WIDE RANGE OF APPLICATIONS. ANY KIND OF ELECTRICAL EQUIPMENT CAN BE TESTED

AIRCRAFT SYSTEM ANALYSIS
Aircraft are usually operated at 400 Hz or 800 Hz and have standard 50 Hz and DC systems. PQ (power quality) Analysis with Harmonic Measurement up to 150 kHz according to ABD or EUROCAE standards, Fault and Transient Recording and Generator testing, are a few of the applications that Dewesoft supports.

0,03 % ACCURACY
Dewesoft makes high accuracy amplifiers and sensors for voltage and current measurement, with accuracy down to 0.03%.

FULLY ISOLATED
We provide isolation on the sensor side (channel-to-ground), as well as channel-to-channel isolation, and even isolated sensor excitation.

1600 V DC /CAT II 1000 V/CAT III 600 V
Direct input and acquisition of high voltage signals is one of our strengths.

CURRENT SENSORS
We offer high accuracy current sensors such as zero-flux current transducers, AC/DC current clamps, Rogowsky coils and shunts with the power supply out of the box, are available.

ELECTRIC/HYBRID ENGINE ANALYSIS POWER ANALYSIS

ADVANCED AND EASY-TO-USE SOLUTIONS FOR COMPLETE ELECTRIC AND HYBRID VEHICLE DEVELOPMENT, VALIDATION AND PRODUCTION - PLUS ELECTRIC MOTOR AND INVERTER TESTING, BATTERY AND BATTERY CHARGE TESTING, COMBUSTION ANALYSIS, HYDROGEN TESTING AND MORE

MOTOR

BATTERY   INVERTER

AC VOLTAGE, CURRENT

DC VOLTAGE, CURRENT
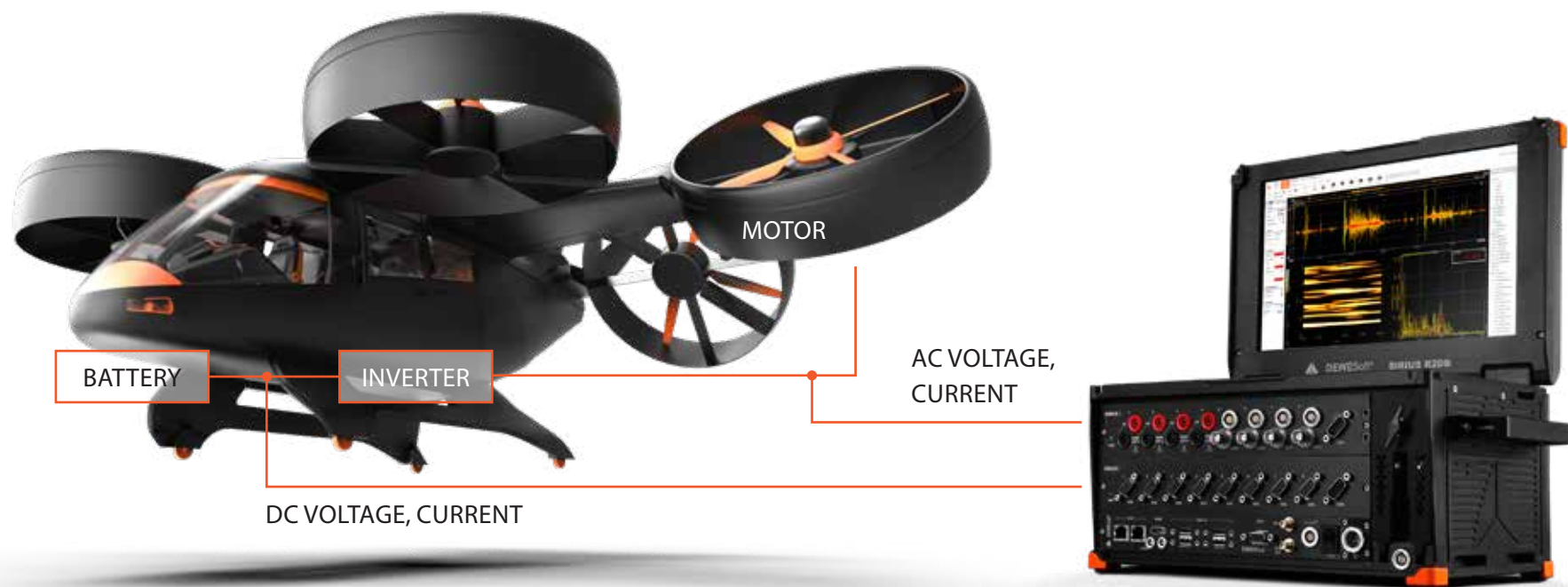
BATTERY TEST
As the central element in the electrical powertrain, the battery needs extensive testing. For dynamic tests (misuse tests, overcharge, short-circuit…) our HS series modules with 1 MS/s sampling are the perfect fit. For static tests (voltage, current, temperature, monitoring…) our flexible and scalable IOLITE and Krypton series are ideal.

MOTOR & INVERTER
Any kind of motor (1 to 12 phase AC) and any kind of inverter (DC-AC, AC-AC, switching frequencies up to some 100 kHz), are measured and analyzed with the power module.

TOTAL POWERTRAIN TESTING SOLUTION
Vibration analysis, torsional analysis, order tracking, combustion noise and many other modules can be used simultaneously with the combustion and power analyzer.

SYNCHRONIZED ACQUISITION OF MULTIPLE SOURCES
Additional synchronized acquisition of other time sources is possible within the same Dewesoft system, including ARINC 429, MIL-STD-1553, CAN, video, inertial systems, and more.

HIGH ISOLATION
Specially designed Dewesoft signal conditioning amplifiers allow you to measure voltages and temperatures at high potentials up to 1.6kV DC.

COMBUSTION AND ELECTRIC POWER IN ONE SINGLE SYSTEM
A single Dewesoft system performs both combustion and electrical power analysis – at the same time, perfectly synchronized.

OUR COMPANY

BUILT WITH YOU
AND FOR YOU

The best solutions can be made only by a motivated team of people who love their work – those who design and build instruments with a spark in their eyes, and those who light up when they have an idea for improvement. Working with you, we are creating Dewesoft together.

EVERYTHING
IN HOUSE

Everything is made in our headquarters in the EU. We own our key technologies, like our software and hardware development labs, chassis manufacturing, pick & place, assembly and testing. It's all done in-house with our own committed employees.

BUILD TO
LAST

Dewesoft is built to last, strongly investing in people, our technology and our own sales network. Dewesoft is owned by the employees – self-financed, and with a AAA credit rating.

HIGHEST
QUALITY

Quality certificates are only the tip of the iceberg of our commitment to quality in all our processes. We are extremely proud that our work had been recognized for excellence with a variety of international and local awards, including NASA TECH award "PRODUCT OF THE YEAR" and Automotive Testing International magazine "SOFTWARE INNOVATION OF THE YEAR".
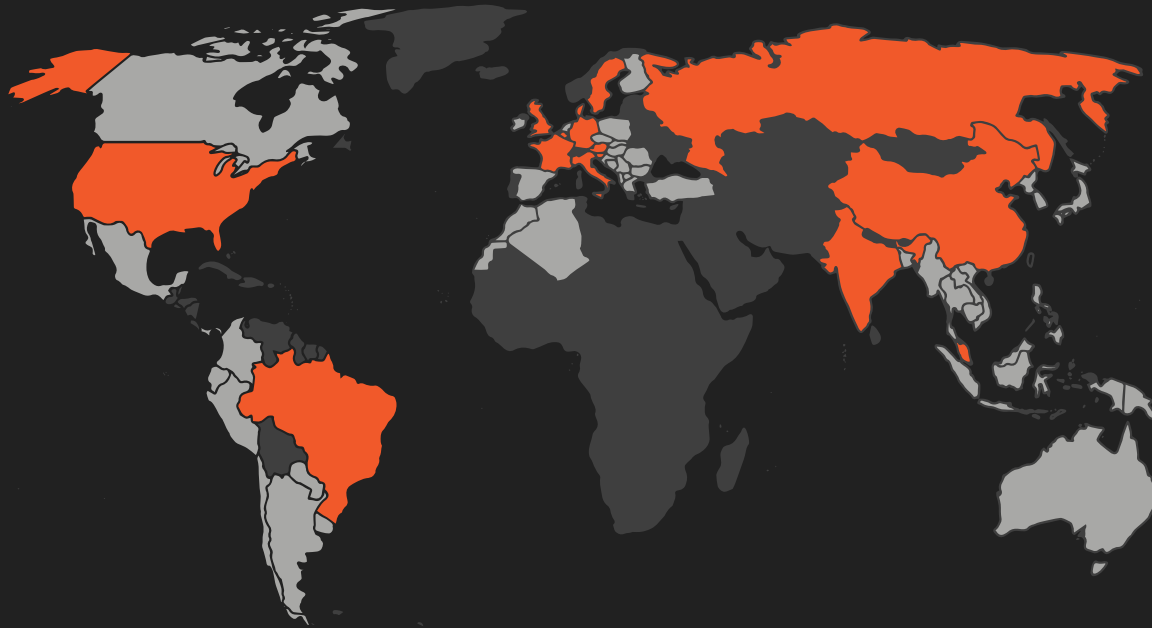
DEWESOFT® WORLDWIDE: SLOVENIA, Austria, Brazil, China, Denmark, France, Germany, Hong Kong, Italy, India, Russia, Singapore, Sweden, UK, USA, Belgium and PARTNERS IN MORE THAN 50 COUNTRIES

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