AT ONE GLANCE

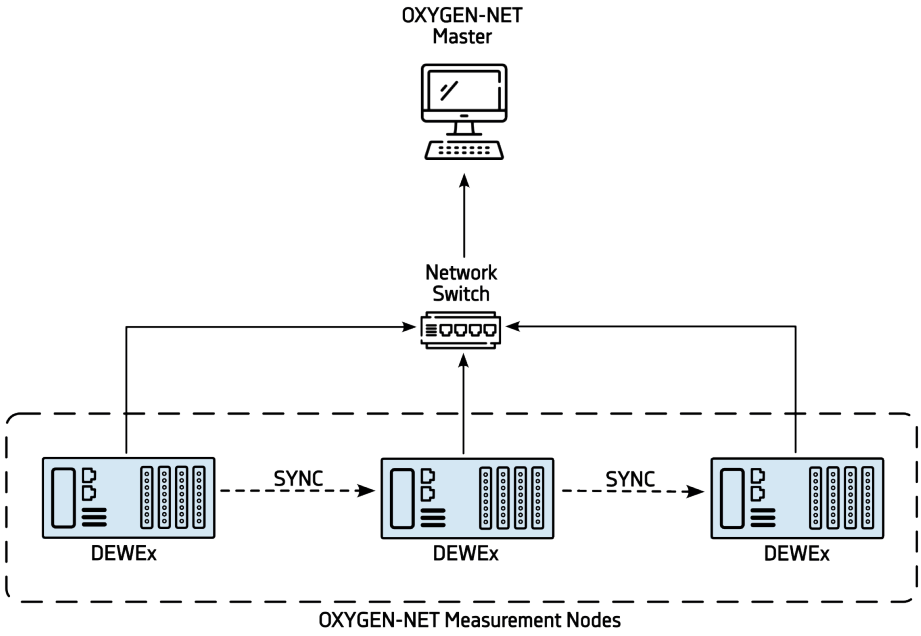
OXYGEN-NET

DEWETRON

WHAT IS OXYGEN-NET?

OXYGEN-NET is a software option for DEWETRON's data acquisition software OXYGEN. It is designed to seamlessly integrate multiple DEWE2/3 data acquisition chassis into a unified system.

By connecting devices via Ethernet, OXYGEN-NET enables the creation of locally distributed and high-channel-count setups. A variety of synchronization options ensure a common, precise time base for all connected chassis.



6 REASONS WHY CHOOSE DEWETRON

1. **Unified hardware architecture:** One hardware architecture and file format for different applications and test scenarios to simplify your setup.
2. **Extended warranty:** Enjoy our 5-year warranty, ensuring long-term reliability.
3. **Accredited calibration services:** Benefit from ISO 17025-accredited calibration and adjustment services that guarantee accuracy and compliance.
4. **Certified quality management:** Our ISO-certified quality management upholds the highest standards across all business processes.
5. **Straightforward software licensing:** Our simple software license policy ensures ease of use and flexibility.
6. **Dedicated local support:** Count on our highly responsive service team for personalized support and assistance.

KEY STRENGTHS

Remote system configuration
All measurement nodes can be remotely configured from a central master unit, which also manages data collection, synchronization, and node setup, ensuring smooth system operation.

Continuous data transfer
Data from all channels and all measurement nodes can be continuously transferred to the Master Client, with Ethernet bandwidth as the limiting factor. All DEWE2/3 data acquisition chassis are equipped with Gbit LAN ports (upgradeable to 2.5 Gbit or 10 Gbit LAN port).

One global data file
The master unit can collect and store data from all channels into a single synchronized data file. Data storage rates up to 1 GB/s can be achieved

Redundant data storage
For data security, measurement nodes store data locally during recording. In case of network issues, local files can be merged with the global data file after the measurement, ensuring no data loss.

Various synchronization options
Select the ideal synchronization solution for your application. Choose from:
> TRION-SYNC-BUS for synchronization without 3rd party devices.
> PTP & IRIG for integration into a lab environment.
> GPS for synchronization of widespread systems and other GPS-based systems.

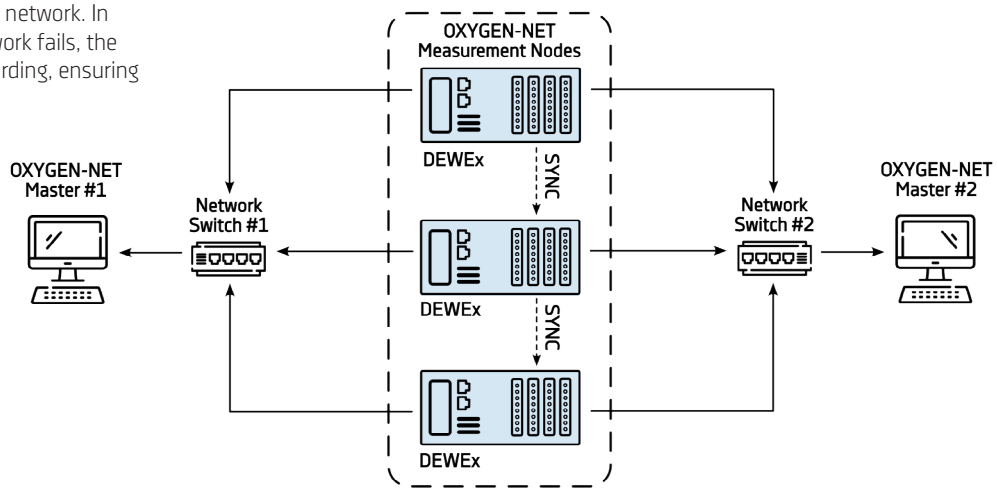
High channel count systems
Ideal for systems requiring hundreds of high-speed channels. OXYGEN-NET supports virtually unlimited channels, with network bandwidth as the only limiting factor, enabling systems with over 1000 channels.

Locally distributed data acquisition systems
OXYGEN-NET enables locally distributed systems, keeping sensor cables short to reduce signal distortion. Standard network equipment supports distances up to 100 m, while additional Ethernet switches, fiber optic cables, or industrial Wi-Fi can extend the range up to 1000 m.

Distributed CPU load via local calculations
Computation and signal analysis can be done locally on measurement nodes, distributing CPU load and RAM usage, and reducing the strain on the master system.

Redundant Master Mode
Measurement nodes can distribute data to multiple master clients simultaneously across a single or a second redundant network. In case, one master client or network fails, the remaining clients continue recording, ensuring no data loss.

Multi-Master Mode
OXYGEN-NET supports multiple master clients within a single system, allowing measurement nodes to be configured from various locations. Additionally, each master client can record data independently with different recording conditions.



APPLICATIONS

> Wind tunnel testing
> Distributed measurements in wind parks
> Propulsion engine testing
> Power analysis on complex powertrains
> Shaker testing
> Structural dynamic testing
> Seismic testing

HEADQUARTERS
DEWETRON GmbH
Parkring 4, 8074 Grambach
AUSTRIA

0043 (0) 316 3070-0
info@dewetron.com
www.dewetron.com