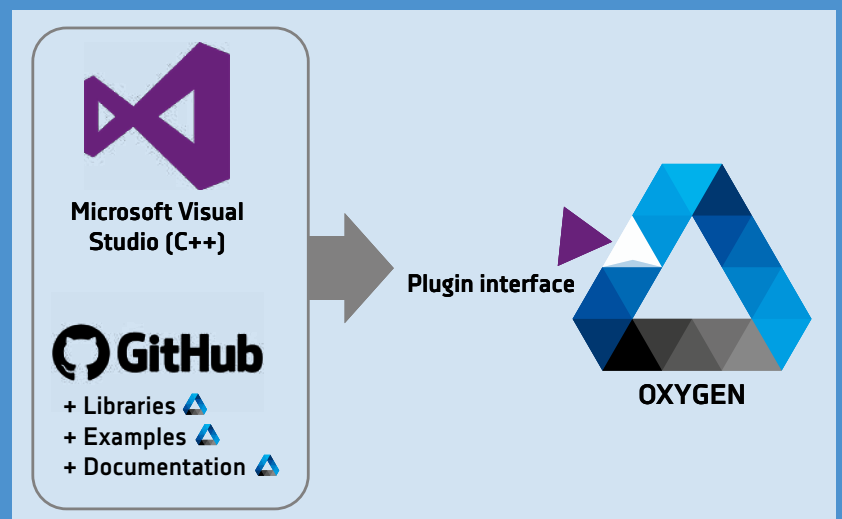


OXYGEN SDK

FOR PROGRAMMERS



Visit us on GitHub for more information

<https://github.com/DEWETRON/OXYGEN-SDK>

With DEWETRON, you get an open platform to develop your own measurement application or extension.

THE MEASURABLE DIFFERENCE.

OXYGEN SDK FOR PROGRAMMERS

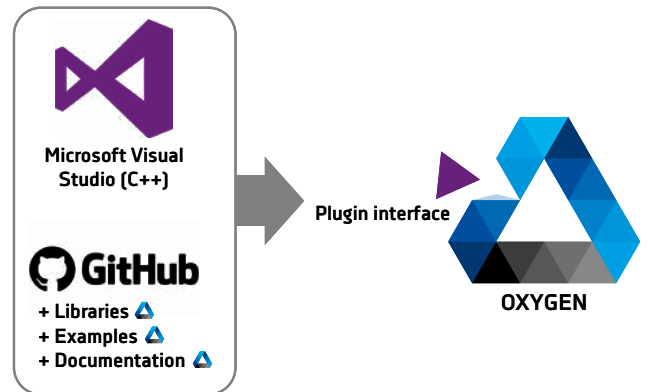
OXYGEN SDK

With OXYGEN SDK, you are capable to develop your own plugins for the OXYGEN measurement software.

With the SDK, the following features are available for the plugin:

- > Advanced calculations and data processing
- > 3rd party data output
- > Data output
- > Special export formats
- > Read and write data from/to numeric channels
- > Create new channels
- > Create config items for setup save/load and user config
 - > Numeric, text, channel list
- > And much more...

This allows you, to extend OXYGEN with additional calculations and data I/O.



If OXYGEN does not provide a certain function, create it on your own!

Visit <https://github.com/DEWETRON/OXYGEN-SDK> and get started!

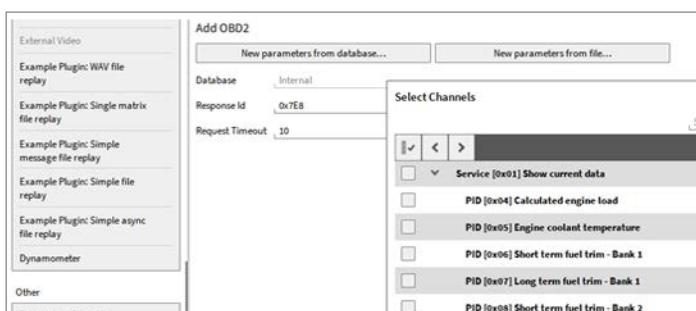
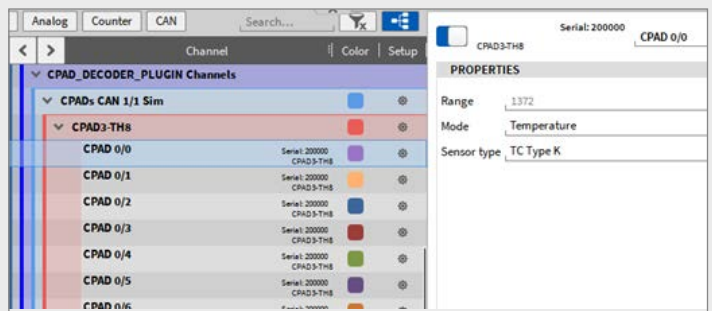
AVAILABLE FUNCTIONALITY

- > Custom QML-GUI for Add Channel Dialog for easy user setup
- > Custom QML-GUI for Data Export and special options
- > User configuration elements
 - > Text and number inputs for all kinds of configuration
 - > Combo boxes (drop-down & custom input)
 - > File picker for selecting files
- > Read data from any OXYGEN channel
- > Create new OXYGEN channels and write data into

EXAMPLE PLUGIN FUNCTIONALITY

CPAD PLUGIN

- > Use OXYGEN CAN channel as data source
- > Process CAN messages and extract scalar channels
- > Create and send CAN messages for configuration change of CPAD modules
- > Autodetect attached modules and create channels dynamically



OBD2 PLUGIN

- > Use OXYGEN CAN channel as data sink and source
- > Query OBD-PIDs and process CAN messages, extract scalar channels
- > Uses file picker for selecting a data description file

FREQUENCY MEASUREMENT

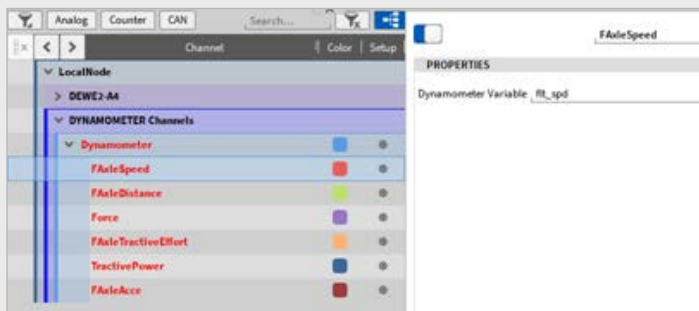
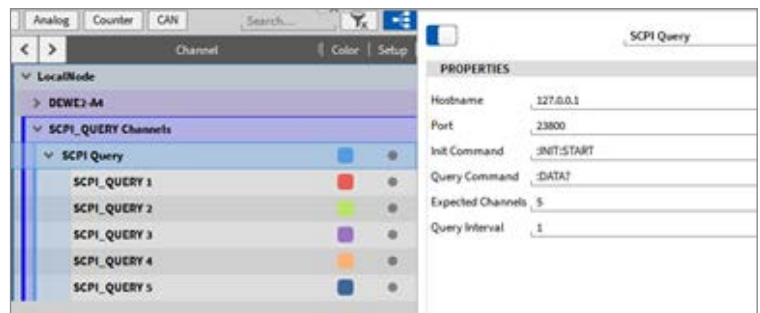
- > Use OXYGEN scalar channel (synchronous) as data source
- > Calculate frequency and output a synchronous channel per input channel
- > Use 1 to many input channels with channel picker
- > Also working in Analysis/Offline mode



SPECIAL DATA SOURCES

SCPI QUERY PLUGIN

- > Query data from SCPI enabled devices (via TCP/IP)
- > Display acquired channels in OXYGEN
- > User selectable INIT Command and cyclic Query Command

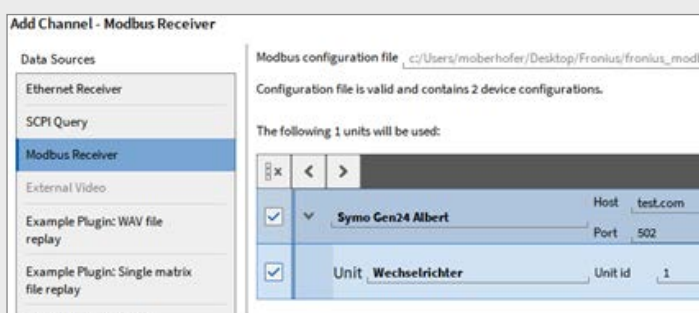
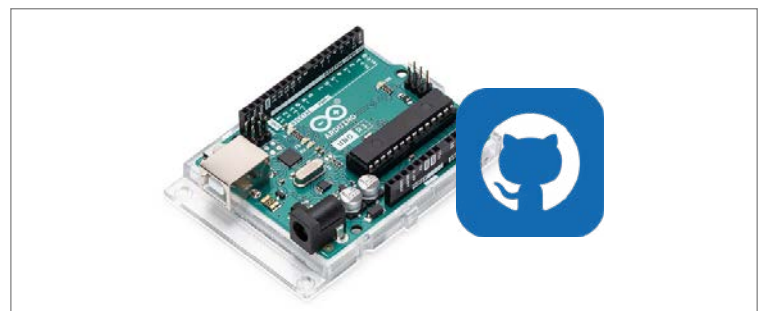


AK DYNO PLUGIN

- > Query data from dynamometers via AK protocol via TCP/IP
- > Display acquired channels in OXYGEN
- > Modify acquired channels

SERIAL CSV READER

- > Use a serial port for data input
- > Parsing of ASCII values
- > Auto-detect number of channels
- > Fork us on GitHub and extend the functionality:
<https://github.com/DEWETRON/OXYGEN-SDK-SerialCsv>



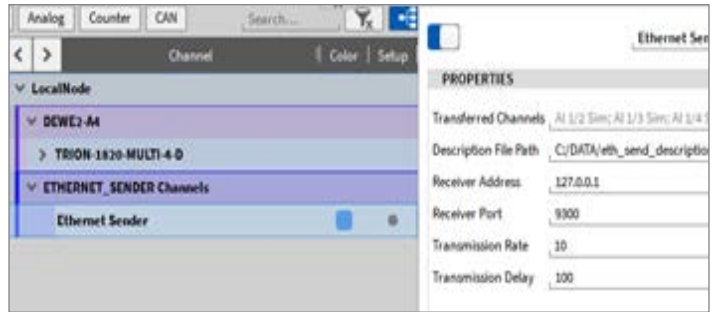
MODBUS TCP/IP

- > Query data from 1-to-many Modbus TCP endpoints
- > Rich QML-GUI for adding the desired channels
- > Read an XML description file for available channel and decoding information

SPECIAL DATA SINKS

ETHERNET SENDER

- > Select 1-to-many channels to be sent
- > Select an interval and transmission delay
- > Convert data to Float and pack into UDP packet
- > Send to selected destination
- > Create an XML description file for data interpretation on destination



SPECIAL EXPORTER

DYNAWORKS

- > Export acquired data (.dmd) to Dynaworks neutral file format
- > Add metadata to exported file

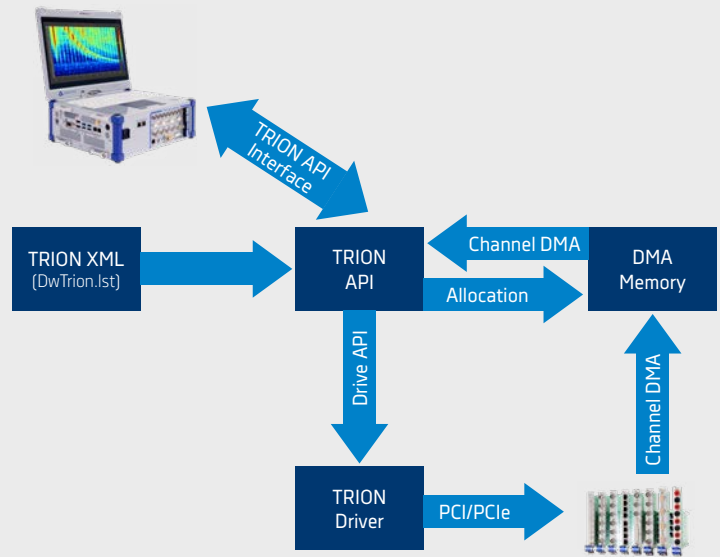
DIADEM

- > Export acquired data (.dmd) to Diadem .dat file format
- > Create an extra timeline for different sampling rates

ALSO AVAILABLE: TRION SDK

The TRION SDK helps you, to build your own measurement application based on the DEWE2/DEWE3 and TRION/TRION3 hardware platforms. It also supports the use of TRIONet.

We support Windows 10 (64-bit), Ubuntu 20.04 LTS, and Redhat/CentOS Enterprise Linux. C/C++ are the natively supported programming languages, additional bindings to Python, C#, and Delphi.



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ABOUT DEWETRON

DEWETRON is a manufacturer of precision Test & Measurement systems designed to help our customers make the world more predictable, efficient and safe. Our strengths lie in customized solutions that are immediately ready for use while also being quickly adaptable to the changing needs of the test environment and sophisticated technology of the Energy, Automotive, Transportation and Aerospace industries. More than 30 years of experience and innovation have awarded DEWETRON the trust and respect of the global market.

There are more than 25,000 DEWETRON measurement systems and over 400,000 measurement channels in use in well-known companies worldwide. Choosing DEWETRON means, having a partner by your side who accompanies you every step of the way. DEWETRON employs over 120 people in 25 countries and is part of the TKH Group, a global corporation, that specializes in the development and supply of innovative solutions worldwide. DEWETRON's quality is certified in compliance with ISO9001, ISO14001 and ISO17025.

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