

THE MEASURABLE DIFFERENCE.



DEWETRON

▼

OXYGEN TRAINING

- > DATA ANALYSIS
- > POST-PROCESSING
- > REPORTING

CONTENT



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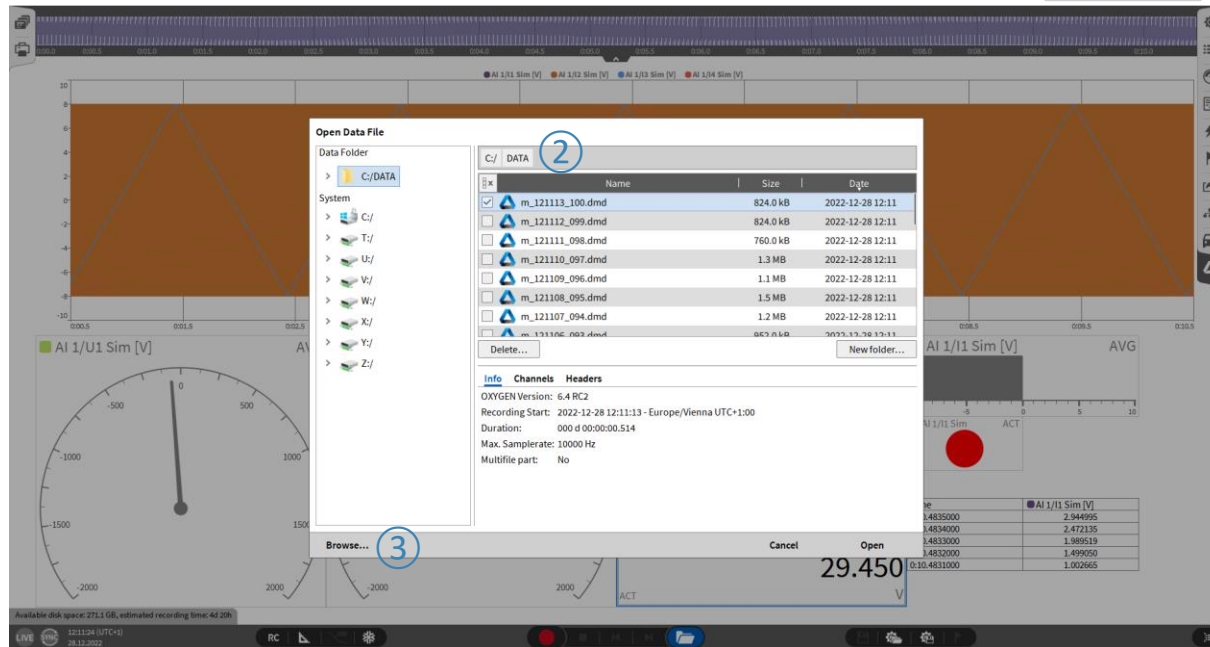
- > Opening data files
- > Data export
- > Recorder functionalities
- > Offline Math
- > Copy & Paste data to 3rd party software
- > Reporting
- > OXYGEN VIEWER mode
- > Open multiple *.dmd-files



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OPENING DATA FILES

- 1 Press the *Open Data File* button
- 2 Select the desired file from the dialog and press *Open*
- 3 Windows file browser can be accessed by clicking on *Browse...*



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OPENING DATA FILES



- ① Different hints indicate that a data file is loaded:
 - > PLAY indicator
 - > Green line on top & bottom of screen
 - > Play button instead of Rec button
- ② Pressing the Play button starts or pauses the file replay
- ③ The orange cursor in the Overview bar or in a Recorder can be moved to a certain position in the file
- ④ The Fast Forward and Reverse button can be used to jump through the file in 5 sec steps
- ⑤ The measurement setup can be extracted and stored to a dms-file with the Store Setup button
- ⑥ File can be ejected to return to the measurement mode with the Eject button

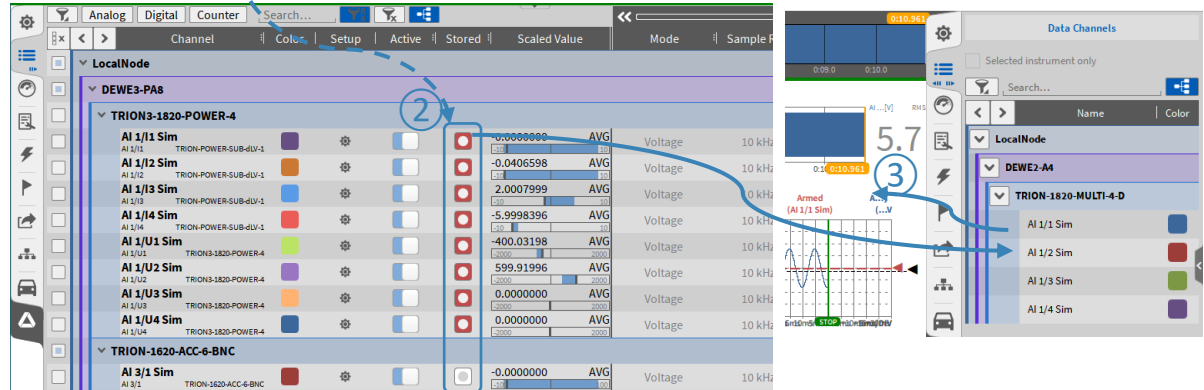
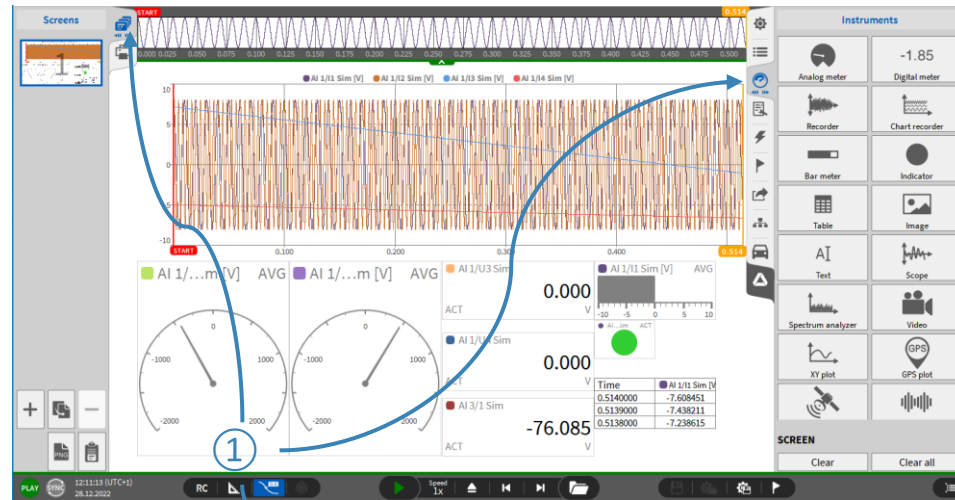


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DISPLAYING ADDITIONAL CHANNELS

- ① Design mode is still accessible to add more screens or place additional instruments on the screen
- ② Other channels can be added to the instruments as well. The fact that channels are not displayed does not mean they are not stored
- ③ All channels activated for storing are available in the data file and can be displayed and analyzed by dragging and dropping them into an instrument





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How to export data

- 1 Open a data file
- 2 Go to the Export menu
- 3 Select the channels to be exported
- 4 Select the export file format:
*.txt, *.csv, *.mdf4.0/4.1, *.mat, *.xlsx,
*.dmd, *.rsp (rpc III), *.wav
- 5 Choose between different file format
dependent options
- 6 Press the export button to specify a
filename and folder

The screenshot displays the DEWETRON software interface. At the top, a timeline shows a recording from 0:00.0 to 0:55.0, with a 'START' marker at 0:14.748 and a 'STOP' marker at the end. Below the timeline are two acceleration frequency matrix plots, each showing Speed [rpm] on the y-axis (500 to 3500) and Frequency [Hz] on the x-axis (0 to 1000). The bottom plot shows a waveform with a yellow trend line and a vertical orange line at 0:14.748. The 'Export Settings' panel on the right is open, showing the 'CHANNELS' section with a search bar and a list of channels: 'Angle_C...teNode', 'Speed_C...teNode', 'TRION-2402-dACC-6-BNC', and 'Acceleration'. The 'OPTIONS' section includes 'CSV' format, 'Decimal separator', 'CSV delimiter', and checkboxes for 'Separate header row for units', 'Use absolute timestamps', 'Waveform', 'Statistics', and 'Export active recorder region'. The 'Export...' button is at the bottom of the panel. Blue circles with numbers 1 through 6 are overlaid on the interface to indicate the steps: 1 points to the 'Export' button in the bottom toolbar; 2 points to the 'Export Settings' panel; 3 points to the channel selection area; 4 points to the 'CSV' format selection; 5 points to the 'Waveform' checkbox; and 6 points to the 'Export...' button.

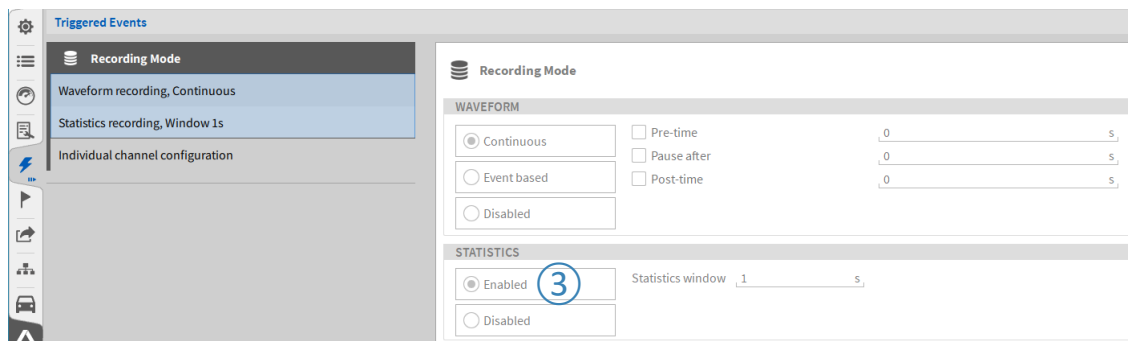
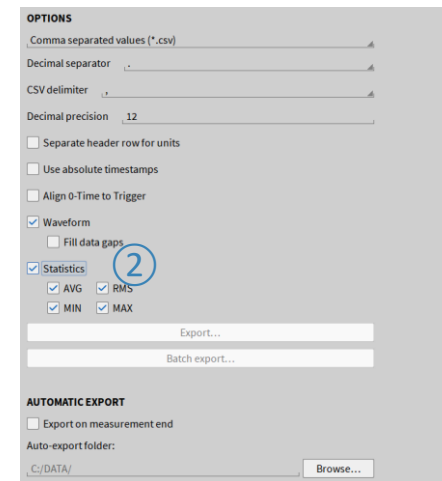
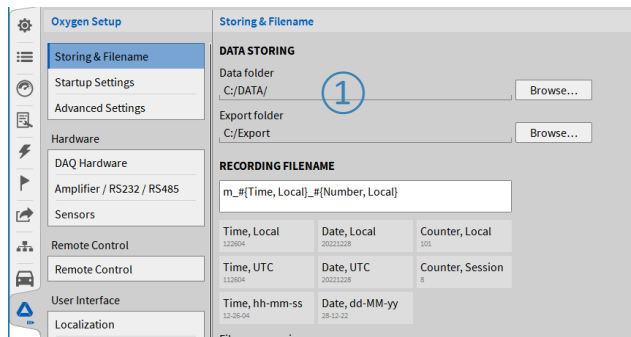


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EXPORT OPTIONS

① Default Export folder can be specified in *OXYGEN Setup* → *Storing & Filename*

② Waveform exports data of selected channels at full sample rate
Statistics only exports min/max/avg/rms values of each selected channel for a defined window time if activated in Trigger menu (③)





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EXPORT OPTIONS

④ If a Recorder is selected during export, the selected signals can be exported only for the timespan displayed in the Recorder

⑤ *Export active recorder region* must be selected herefor

⑥ Cursors can be activated as well

⑦ If cursors are activated in the Recorder, the data of the selected signals can be exported only for the timespan between the cursors

⑧ *Export region between cursors* must be selected herefor

⑨ The dmd export can be used in combination with one of these two possibilities to decrease the file size of dmd files.
Dmd export supports no channel selection but exports all available channels

The screenshot displays the DEWETRON software interface with the 'Export Settings' dialog box open. The interface shows a timeline at the top, two spectrograms, and a waveform plot with two cursors (A and B) positioned at 0.24000 and 0.24250 seconds. The 'Export Settings' dialog has the following sections:

- CHANNELS:** A list of channels including 'Angle_C...zeNode', 'Speed_C...zeNode', 'TRION-2402-dACC-6-BNC', and 'Acceleration'.
- OPTIONS:**
 - Decimal separator: [dropdown]
 - CSV delimiter: [dropdown]
 - Separate header row for units
 - Use absolute timestamps
 - Waveform
 - Statistics
 - Export active recorder region

Annotations in the image include:

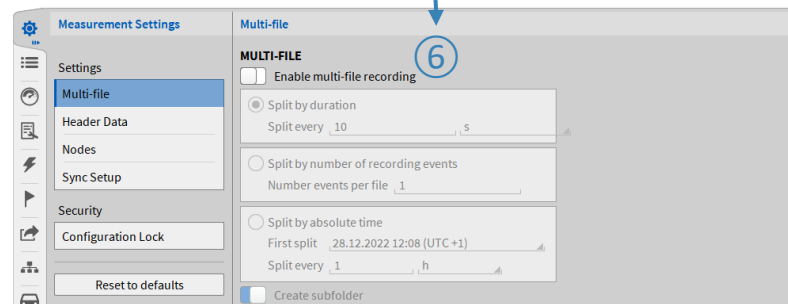
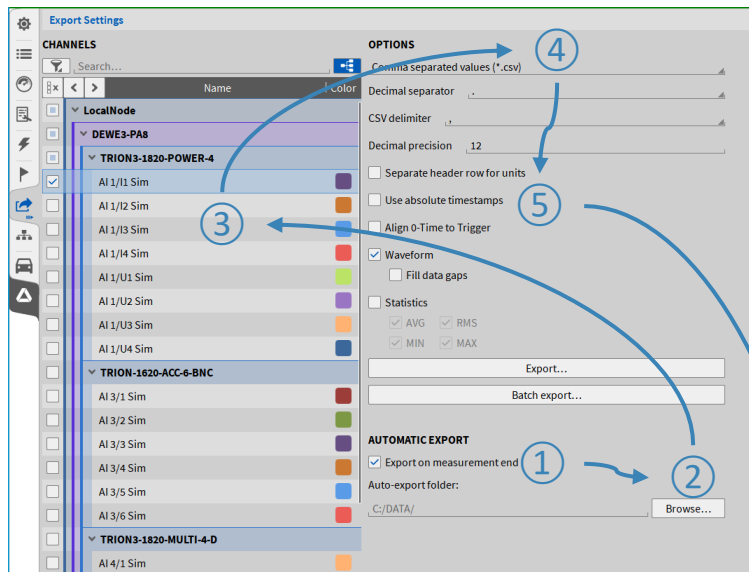
- A blue circle '4' around the 'Export active recorder region' checkbox in the top dialog.
- A blue circle '5' around the 'Export active recorder region' checkbox in the bottom dialog.
- A blue circle '6' around the 'Export region between cursors' checkbox in the bottom dialog.
- A blue circle '7' around the cursors in the waveform plot.
- A blue circle '8' around the 'Export region between cursors' checkbox in the bottom dialog.
- A blue circle '9' around the 'DMD' section in the bottom dialog.



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AUTOMATIC EXPORT

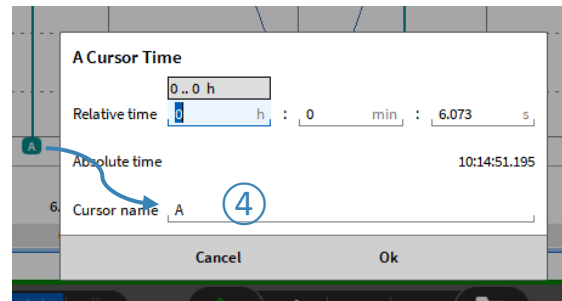
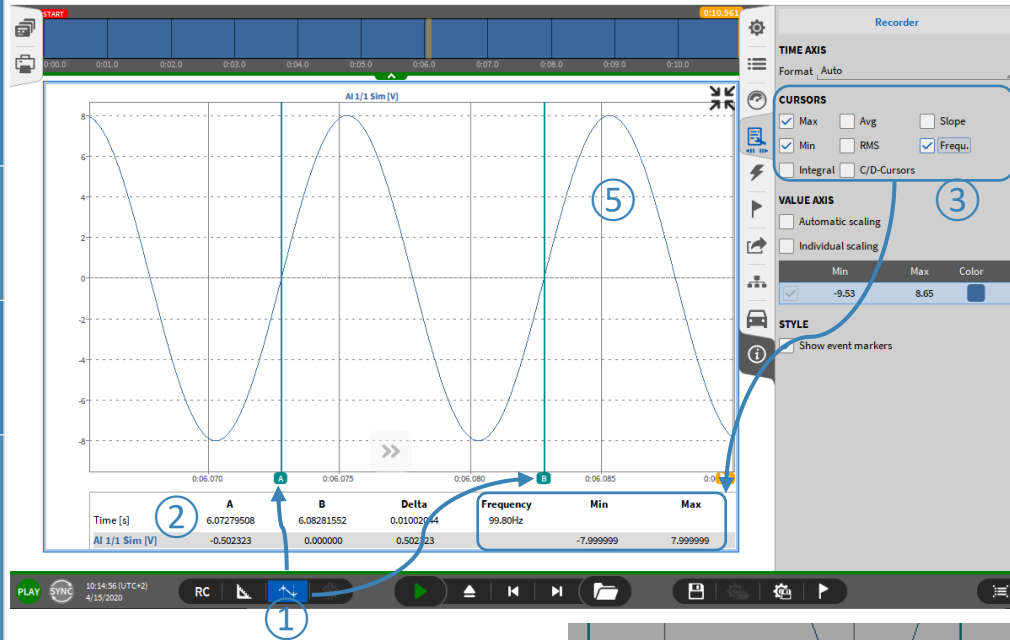
- 1 The Export menu can also be accessed in Live mode during setup generation to activate the option to automatically *Export the data after measurement end*
- 2 A separate export folder can be specified
- 3 Individual channels for export can be selected
- 4 Export format can be specified
- 5 Format dependent options are available
- 6 In case of Multi-File recording, data since recording start will be exported to one single file but not be split up in individual files





RECORDER & A/B CURSORS

- ① Activate the Cursors with the *Cursor* button
The A/B cursors can be moved with the mouse
- ② Actual position and signal value for all signals in the Recorder can be seen in the table below
- ③ Certain Statistics for the signal between both cursors can be selected in the Recorder Properties
- ④ A/B cursors can be renamed in the popup which opens with a click on the cursor name
Deactivating and activating cursors again keeps the individual name stored and cursors of several Recorders can be renamed individually



Remark:
Cursors can be activated for Recorder,
Chart Recorder and Scope



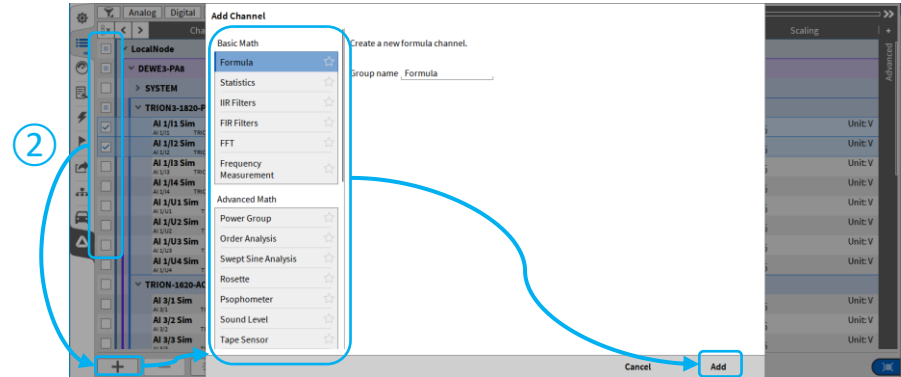
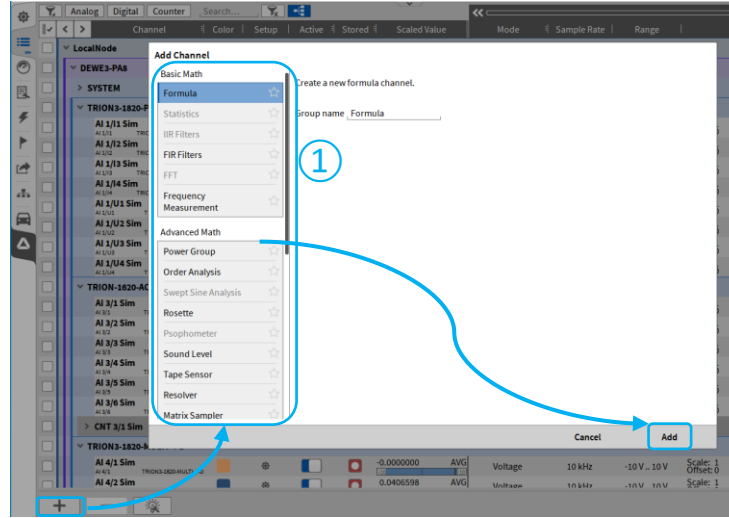
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OFFLINE MATH

① Basic and Advanced Math (except Power Groups) can be created offline

② Reference channels must be selected before creating

- > Statistics
- > Filters
- > FFT
- > Swept Sine Analysis
- > Psophometers



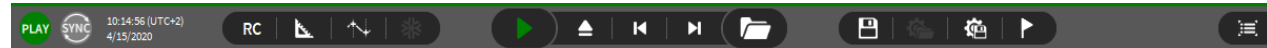
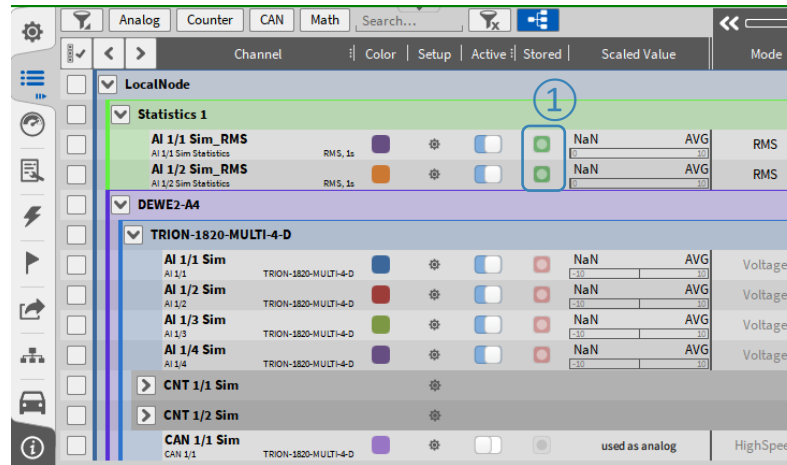
OFFLINE MATH



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- Offline created channels are marked with a green *Stored* button
- Any changes to a data file can be stored with the *Store* button



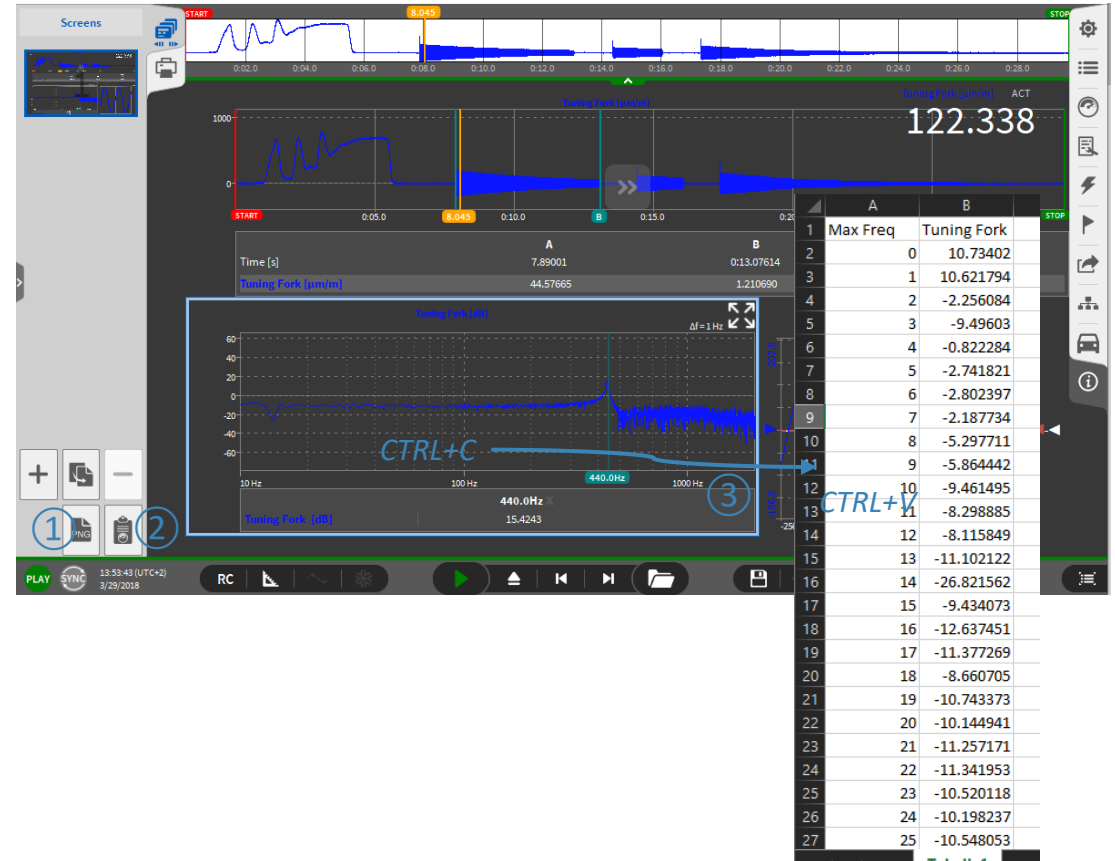
Remarks:

- > After closing and reopening a data file again, the offline created channels cannot be edited any more
- > Thus, it's not possible to edit settings of an online calculated channel
- > It is not possible to edit the settings of an analog channel, digital or counter channel offline
- > Please keep in mind that the results of an offline calculated channel can differ from an online calculated channel, i.e. filters as they are oscillating at the beginning



COPY & PASTE DATA

- ① Export the entire screen or the currently selected instrument to *.png or *.jpg
- ② Copy the entire screen or the currently selected instrument to clipboard
- ③ Copy the actual FFT data to clipboard to paste it to Excel or misc

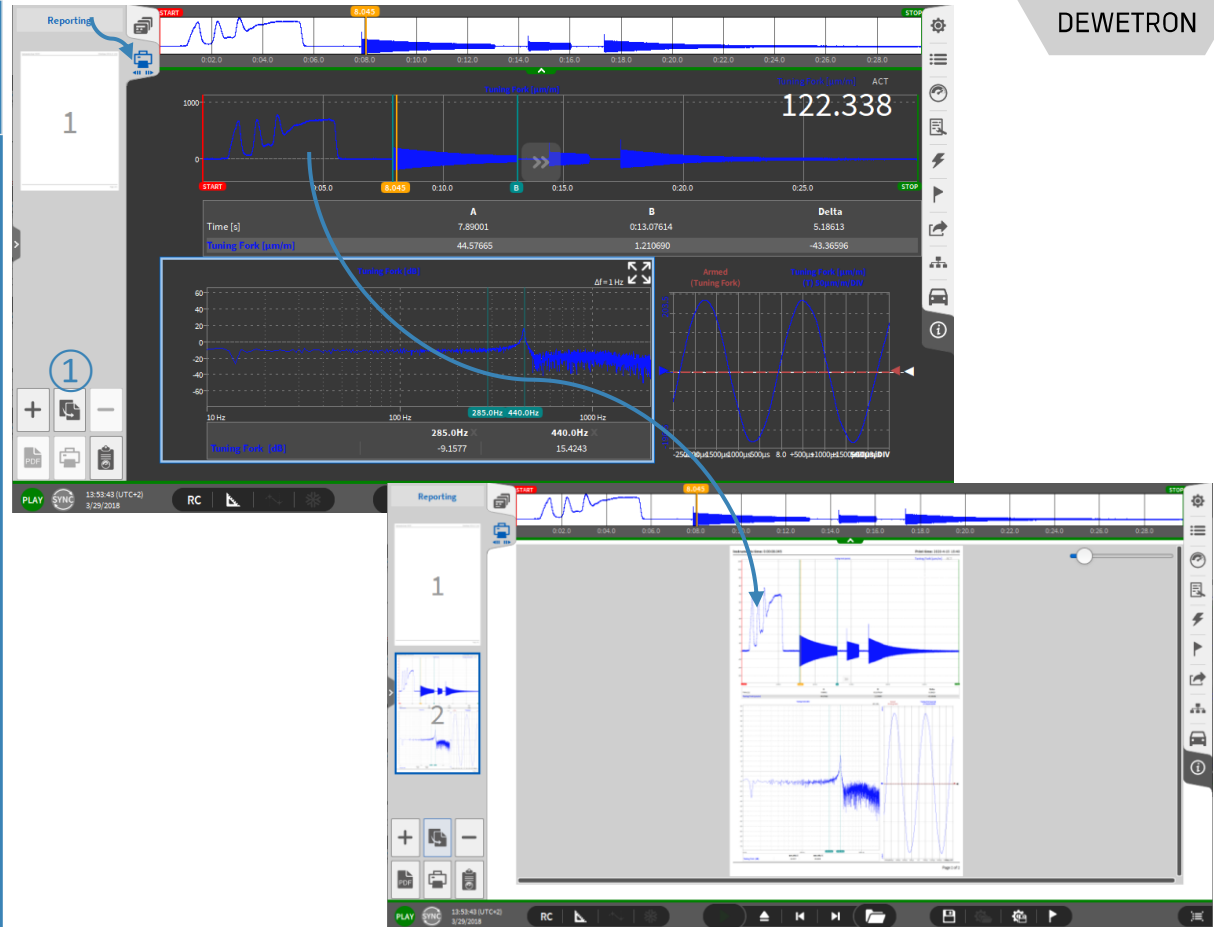




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REPORTING

① Go to the Reporting menu and press the *Copy* button to add the current screen to a report that can be exported as *.pdf

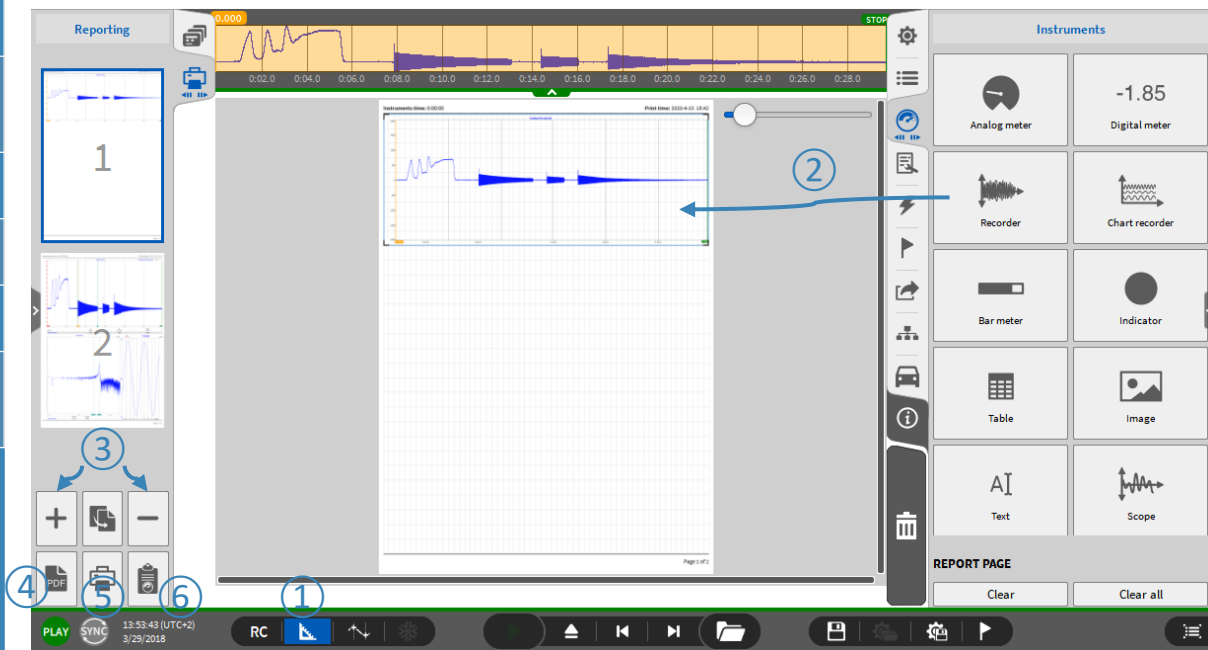




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REPORTING

- ① Design Mode can be activated as well...
- ② ...to configure your reporting page in the same manner as a measurement screen
- ③ Pages can be added or deleted
- ④ Export the report as *.pdf
- ⑤ Send the report to a printer
- ⑥ Copy the actual report page or currently selected instrument to clipboard

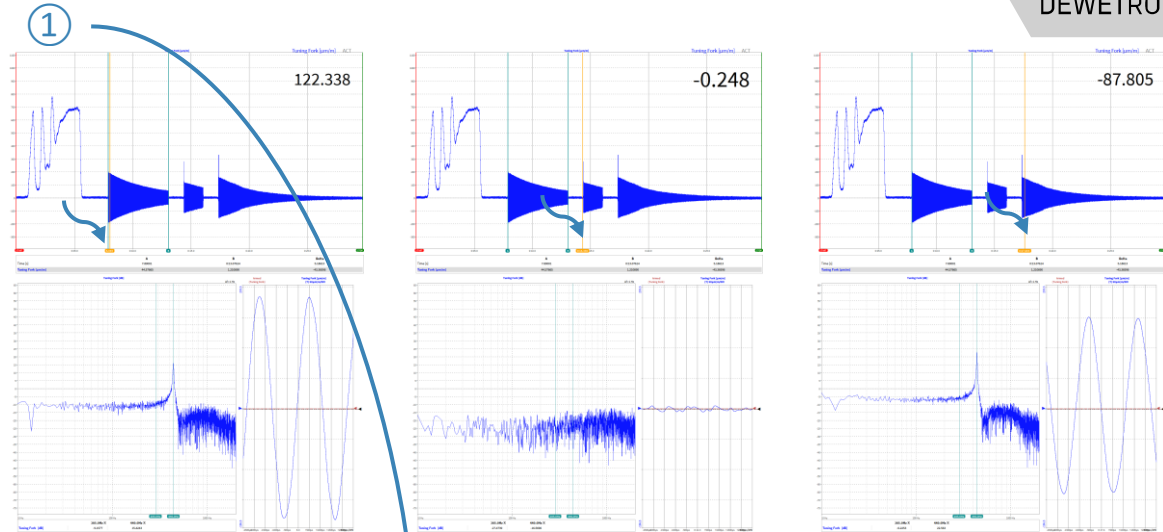




REPORTING

① The orange cursor can be placed on different positions for every single page to analyze different events
All instruments on the same page are linked to the orange cursor

② The Report settings can be accessed by expanding the Report menu to the full screen
> Set the orientation to landscape or portrait
> Choose A4 or letter paper size
> Select an icon for the footer
> Export only specific pages on request
> Select a printer
> Select an export directory for the *.pdf file



*Remark:
A report template can
already be stored to the
dms- (setup) file*

PAGE SETTINGS
Orientation: Portrait
Paper size: A4
Footer icon:

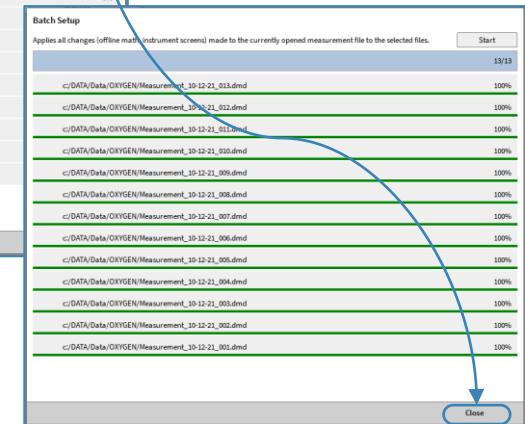
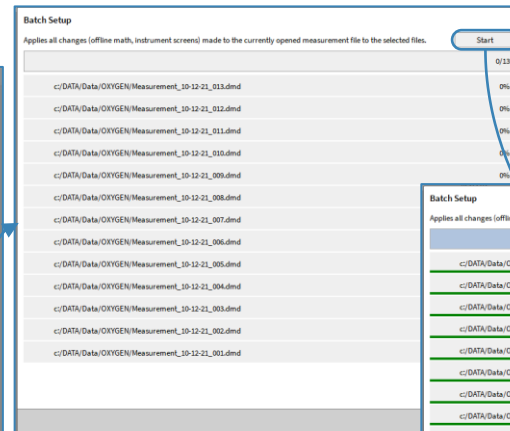
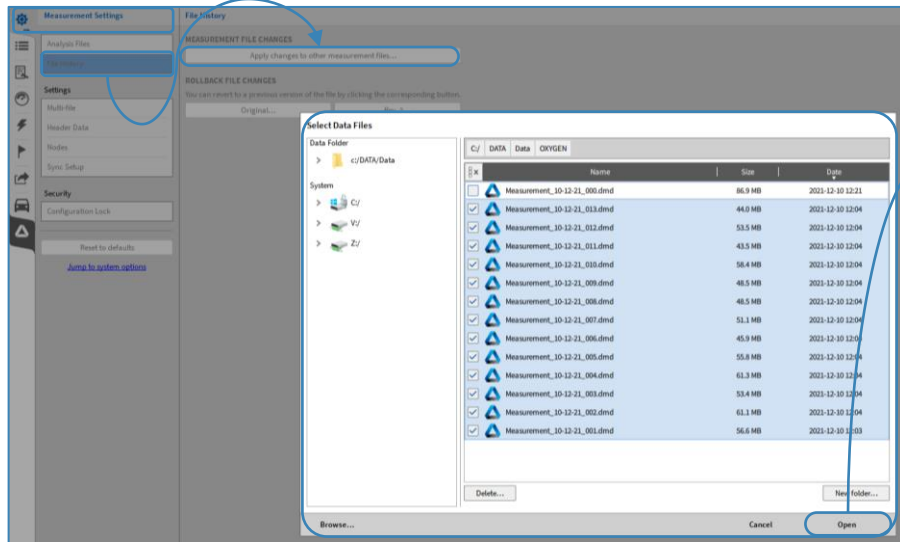
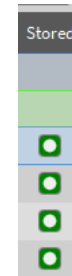
REPORT CONTENT: 4 PAGES
Page: All
 Specified pages:

PRINT REPORT

CREATE PDF REPORT

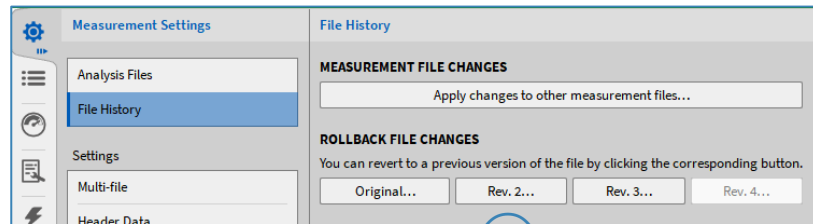
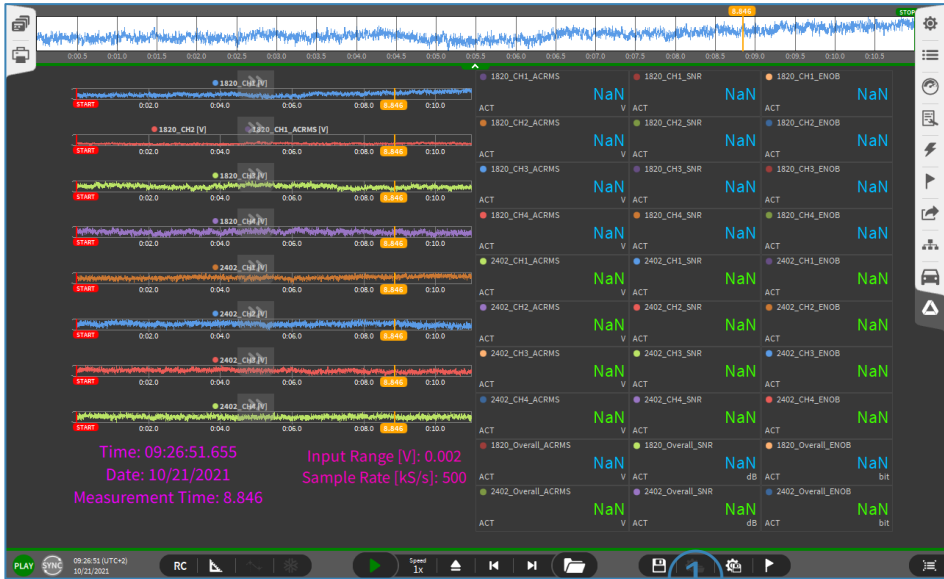
*.DMD BATCH PROCESSING

- > Possibility to apply changes from one *.dmd-file to other *.dmd-files automatically
- > *.dmd-files must be created with the same *.dms-file
- > Changes imply
 - > Offline changes in the channel list (Formulas, Powergroups, CAN channels,...)
 - > Aka anything with a green *Stored* button
 - > Changes to the measurement screen



*.DMD-FILE HISTORY

- > *.dmd-file history included to revert changes
- > A new storage point will be created every time, the *Store* button is pressed (1)
- > Possibility to revert changes and return to previous storage points (2)



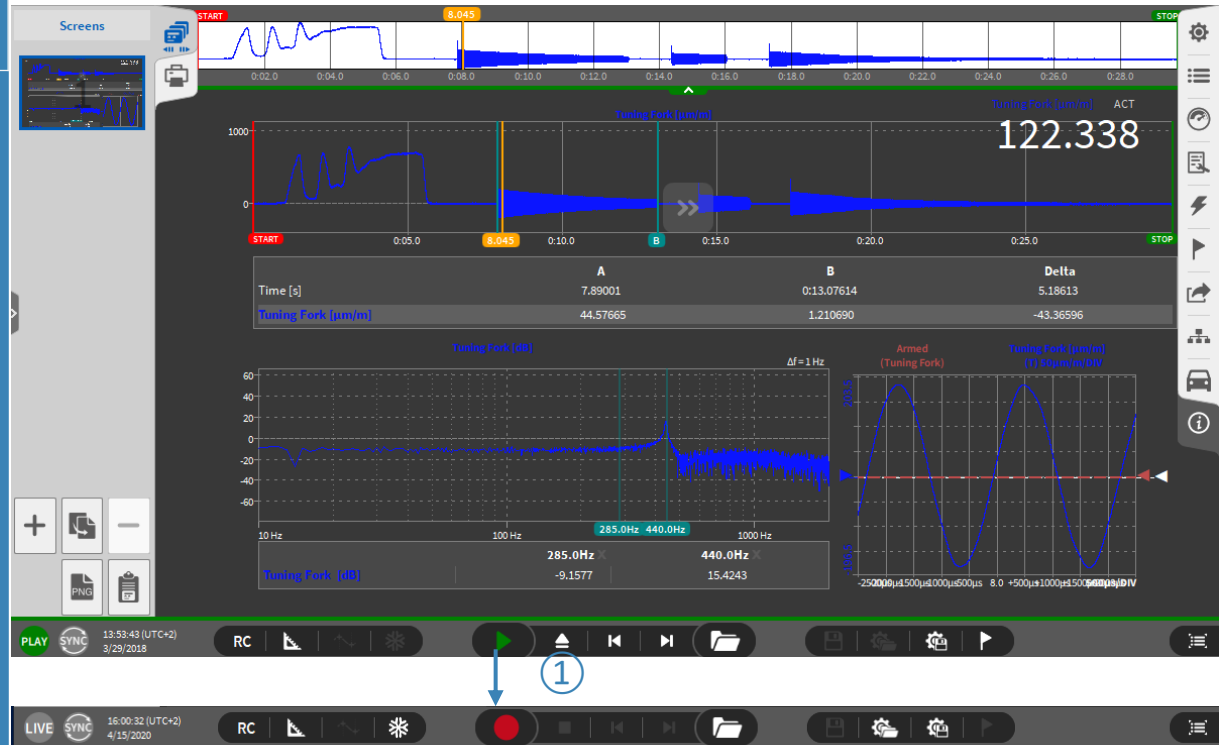


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RETURNING TO DATA ACQUISITION (LIVE) MODE

① To close a data file and return to *LIVE* mode for a new recording, press the *Eject* button





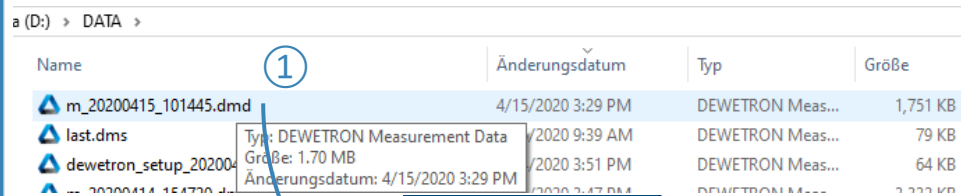
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OXYGEN VIEWER

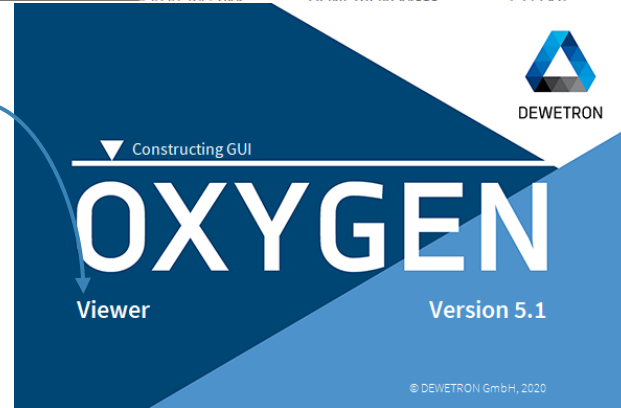
① When a data file is opened with double click from the Windows Explorer, it is automatically opened with the OXYGEN Viewer.
OXYGEN Viewer can be used to open several data files in parallel (each with a separate OXYGEN Viewer instance) for comparison.

It is also possible to open a data file with OXYGEN Viewer while a Recording is still active

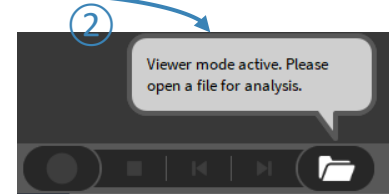
② If a file is ejected from the Viewer mode, it is only possible to open another data file but not to start a recording



Name	Änderungsdatum	Typ	Größe
m_20200415_101445.dmd	4/15/2020 3:29 PM	DEWETRON Meas...	1,751 KB
last.dms	4/2020 9:39 AM	DEWETRON Meas...	79 KB
dewetron_setup_20200...	2020 3:51 PM	DEWETRON Meas...	64 KB
...



Remark:
OXYGEN Viewer is installed automatically while installing OXYGEN. There is no separate installer required



OPEN MULTIPLE *.DMD-FILES



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The screenshot displays the Dewetron software interface. The main window shows a multi-channel waveform plot with five traces: red, green, cyan, blue, and magenta. The y-axis ranges from -1.0 to 1.0, and the x-axis shows time from 0:00.00 to 0:04.00. A red vertical line marks the 'START' time, and a green vertical line marks the 'STOP' time. The plot area is divided into a white region above the start time and a grey region below it. The right sidebar contains 'Measurement Settings' and 'ANALYSIS FILES'. The 'ANALYSIS FILES' section shows a list of files with their identifiers, filenames, start times, durations, and offsets. A context menu is open over the first file, showing options like 'Manual align', 'Align to recording start', and 'Align to absolute time'. The 'Align to recording start' option is selected and highlighted with a blue circle '1'. The 'Align to absolute time' option is also highlighted with a blue circle '2'. The 'Duration' field for the selected file is highlighted with a blue circle '3'. The bottom status bar includes a 'PLAY SYNC (UTC+1)' button, a lock icon, a zoom icon, a speed control set to '1x', and a play button.

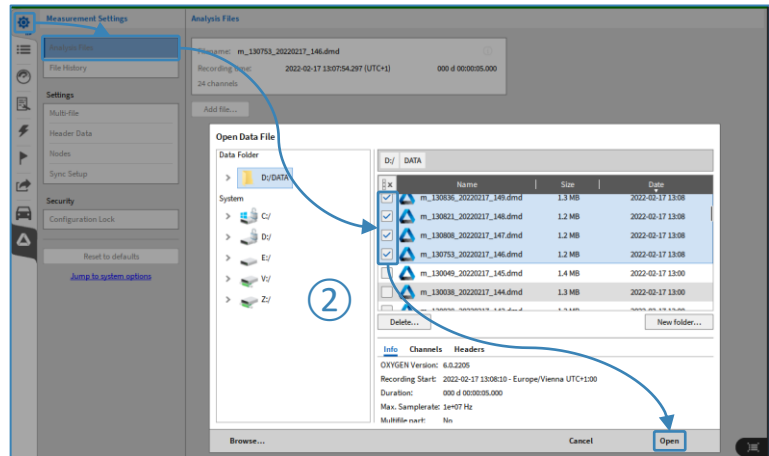
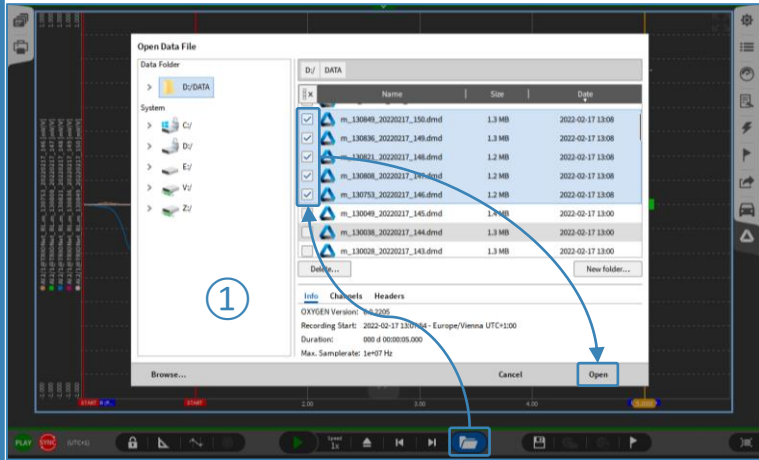


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OPEN MULTIPLE *.DMD-FILES

- > How to:
- > Use the *Open data file* popup (1)
- > Use *Add file...* option in Measurement Settings (2)





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OPEN MULTIPLE *.DMD-FILES

- > Each loaded *.dmd-file has a separate group in the Channel List (1)
- > Overview of all loaded files available in *Measurement Settings* → *Analysis files* (2)

