Dewesoft Instructions:

Chapter 10

This document presents basic functionality of Chapter 10 plugin in DEWESoft software. We show how to enable and use needed plugins for decoding streams and perform measurement.

Contents:

1. Needed files

To start we need following files:

- DEWESoft X2 b7 or newer: *DEWESoftX.exe*
- Chapter 10 plugin: *Chapter10.dll*
- PCM Telemetry plugin: *Tarsus.dll*
- Telemetry cam plugin files: *TelemetryCam.cdv*, *VideoAPI.dll*, *VideoJ2kAPI.dll*

All files can be downloaded from http://www.dewesoft.com/download

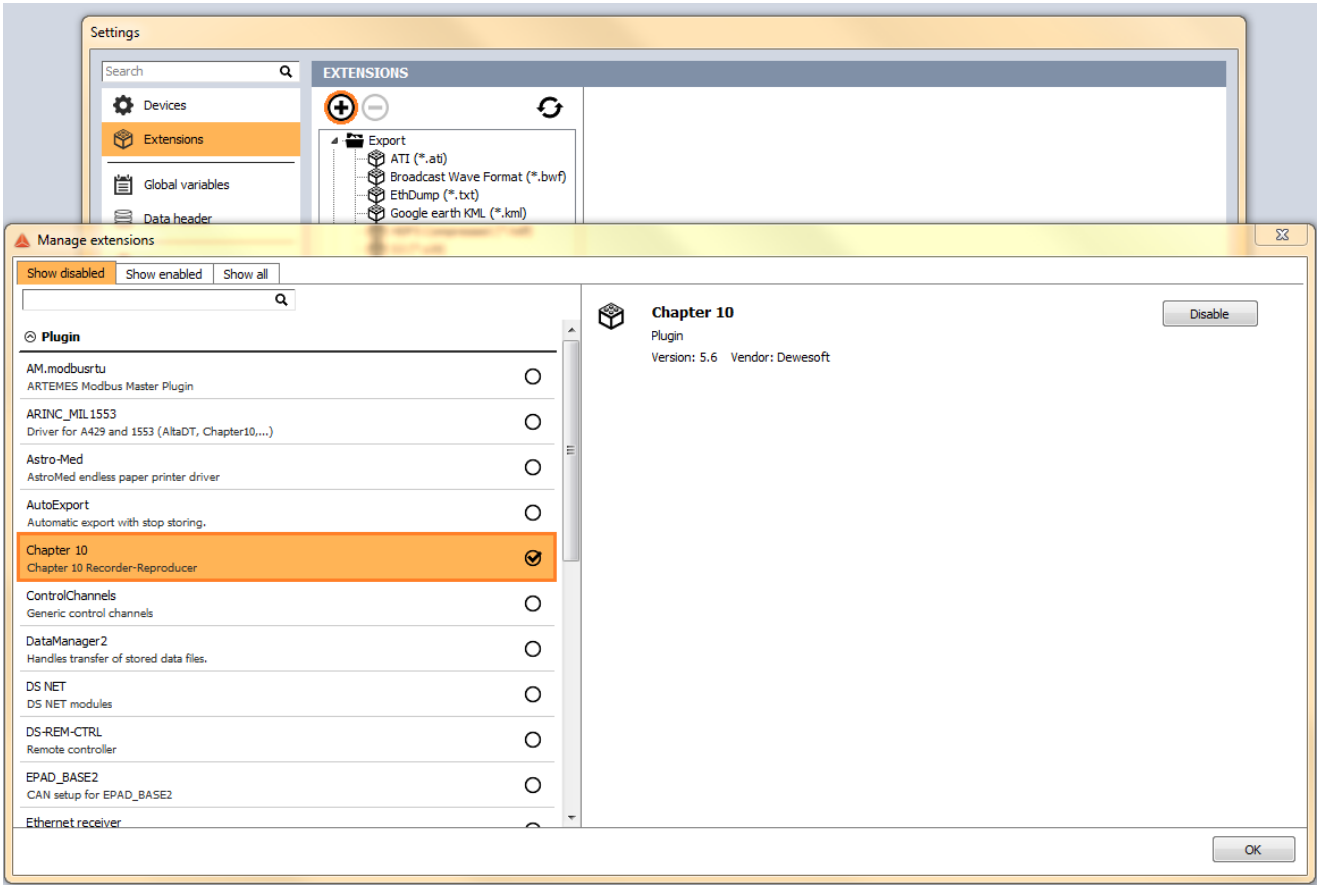
To download beta software, free registration and login is required.

2. Chapter 10 plugin

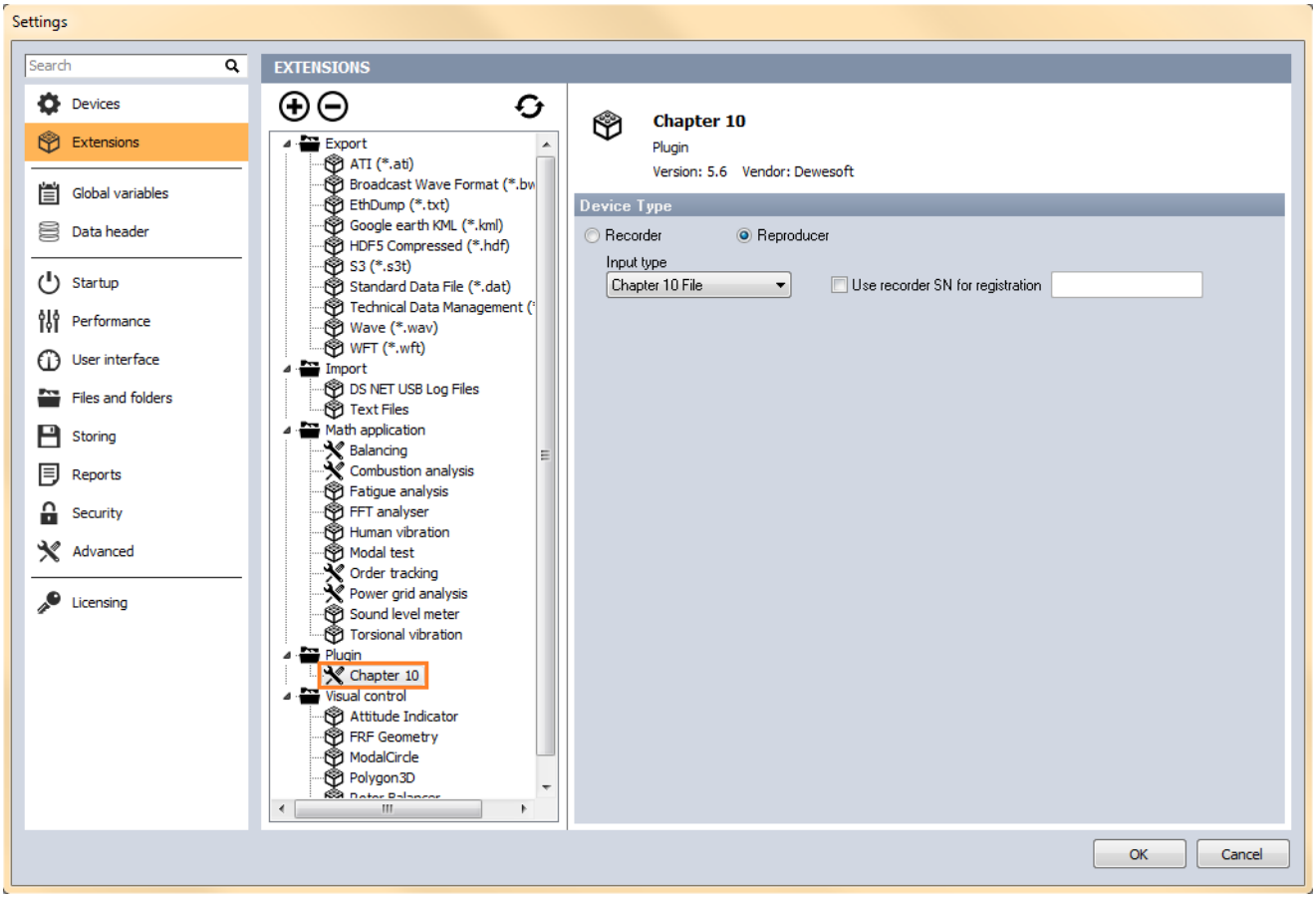
1. Copy all plugin files under DEWESoft folder ‘Addons’.

2. Run Dewesoft, go to Settings > Hardware setup > Extensions:

    a. To add an extension, press “+” button
    b. Find Chapter 10 plugin, check the checkbox and press “OK”

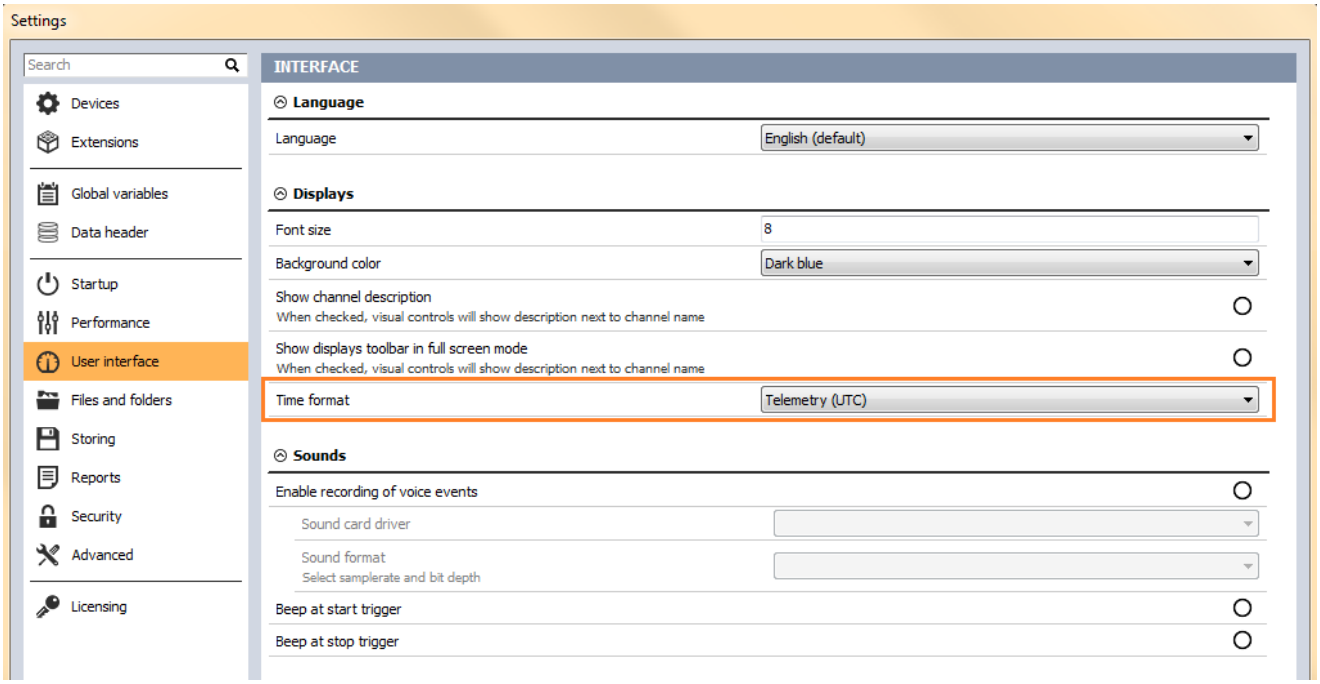


3. Choose Device type:
    a. After plugin is added, it should appear on extension list
    b. Clicking on it will show some settings:

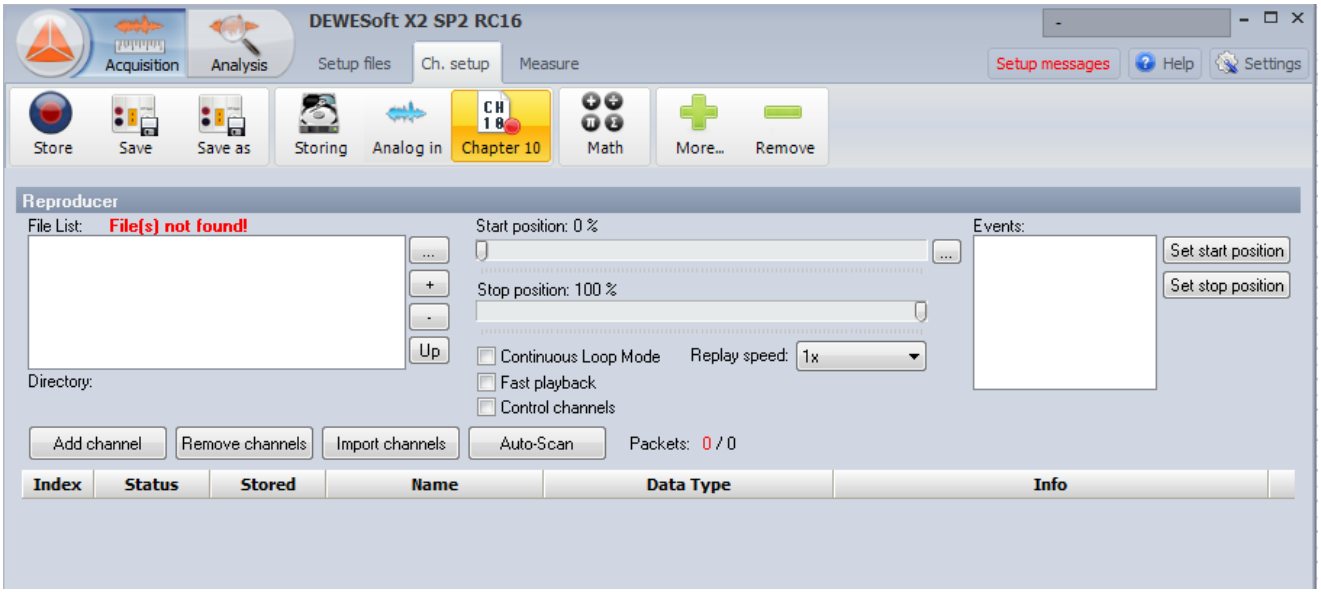


a. Recorder: Dewesoft can record ch.10 to file or UDP Ethernet (Output type)
b. Reproducer: Dewesoft reads ch.10 from file or UDP Ethernet (Input type)

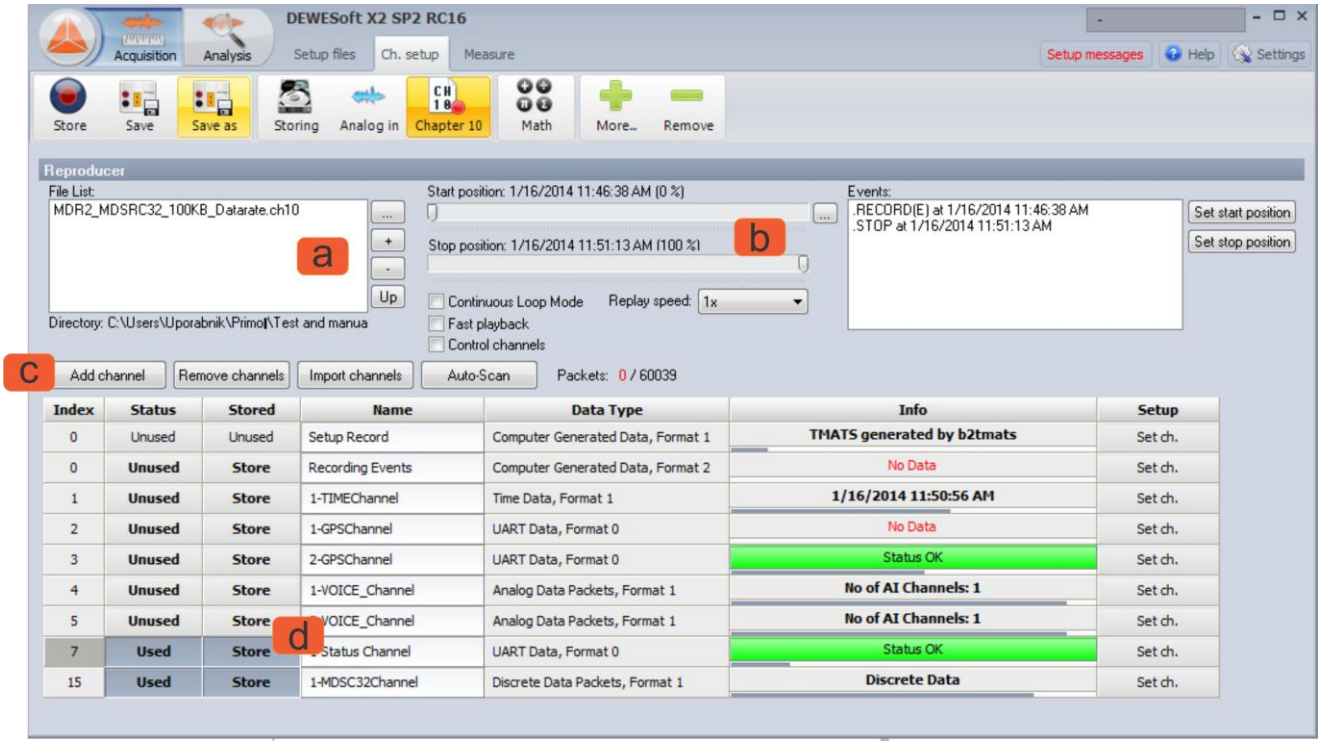
4. Make sure that 'Telemetry (UTC)' is chosen under Settings > Settings > User interface > Time format:



5. Click OK, go to 'Ch. Setup' tab and click 'Chapter 10' icon. Following setup screen appears:



6. We open demo Chapter 10 file (with .ch10 extension) and choose ‘Auto-Scan’ button to get channels that are recorded in the file:



Packets started to appear in format 0/*n*, where 0 is number of error messages out of all messages *n*.

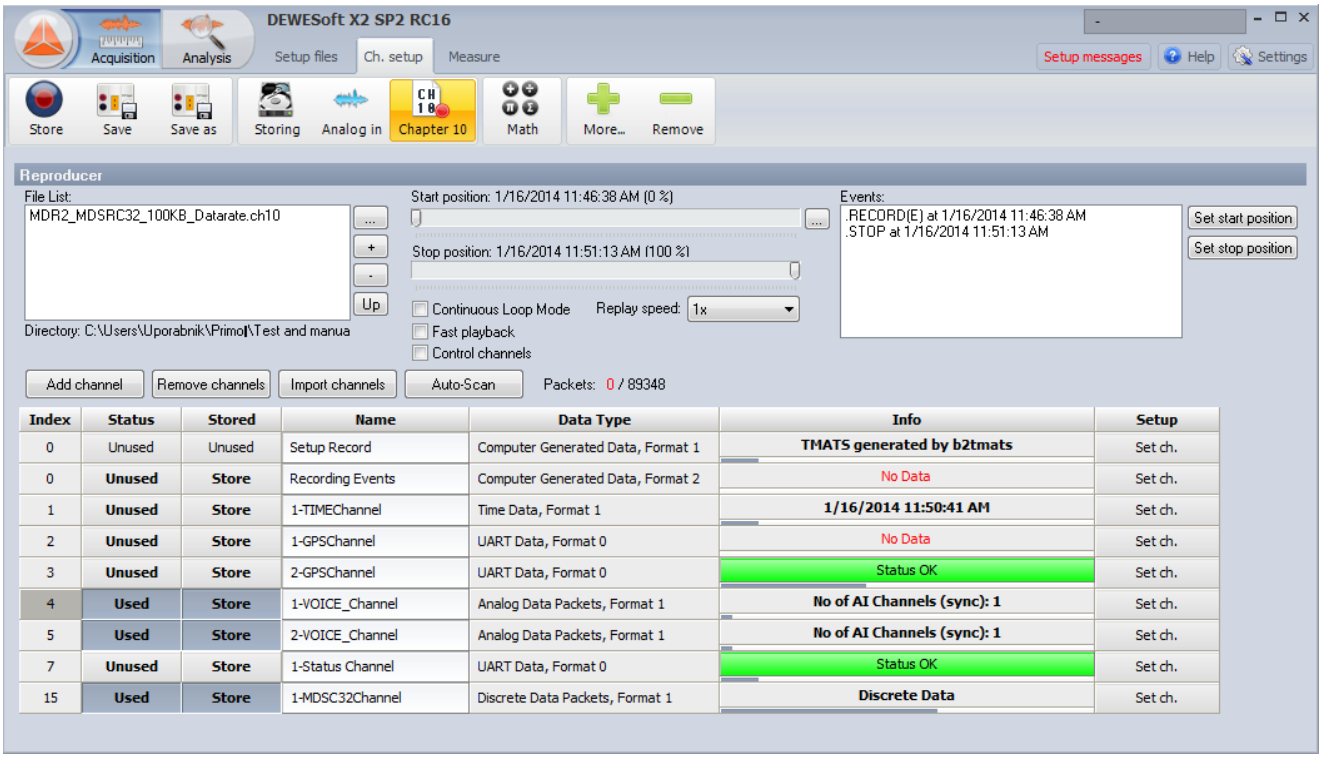
Following options can be set in Chapter 10 setup screen:

a) select multiple files (that have same setup),
b) choose position and speed of replay,
c) add or remove channels,
d) enable wanted channels, change its names or see details in setup.

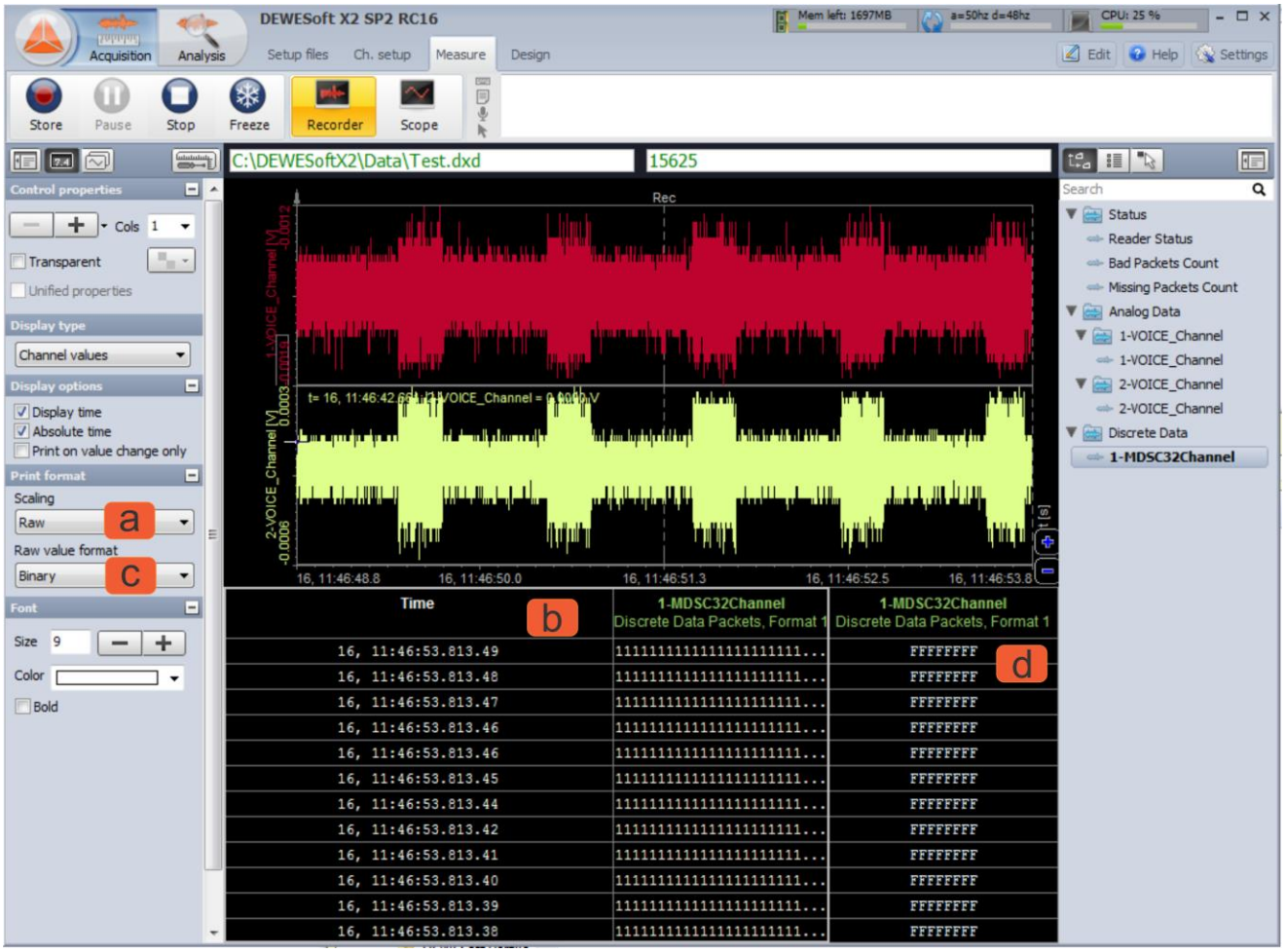
In this way we can preview and enable any type of channels like AI, Time, UART, discrete, video data and more. Next chapters shows how to do this.

2.1 Analog and discrete channels

To enable analog or discrete data packets, we set wanted channels to used:



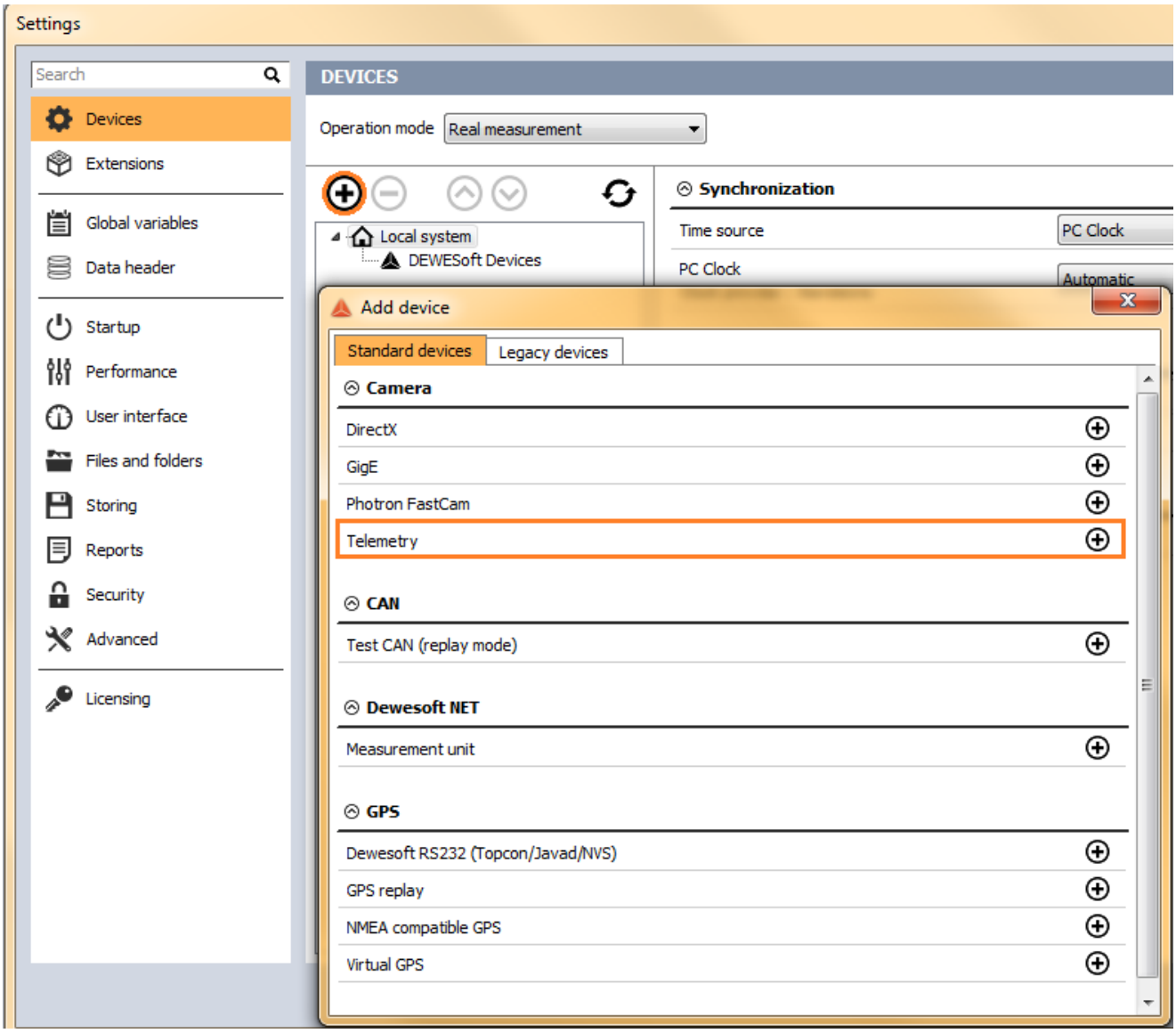
To present it we go to Measure > Design mode. We would want to present signals on two different controls: 'Recorder' for analog signals and 'Tabular values display' for discrete signals. We add it to wanted place and assign channels to it:



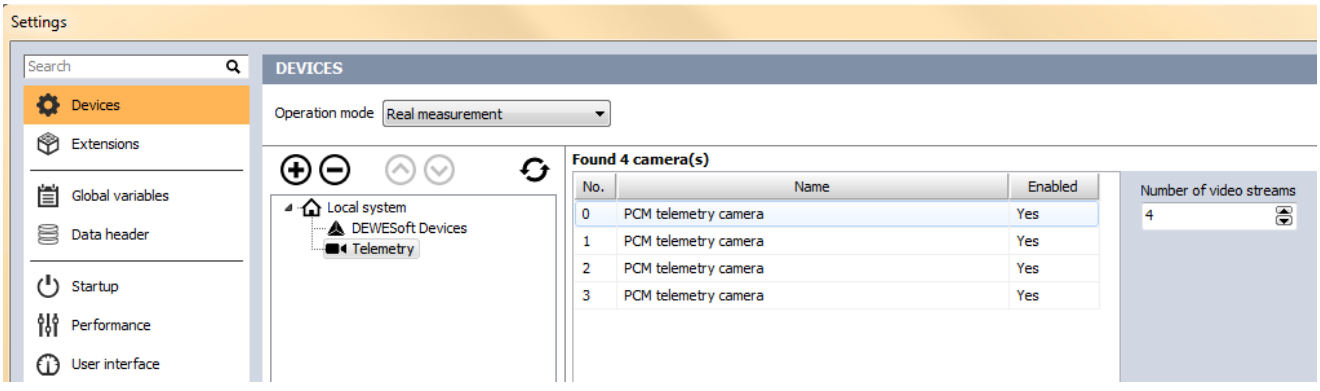
Discrete value channel is displayed in Raw scaling (a); on bottom left (b) Binary format was selected from the menu on left (c) and on second display (d) Hex format was selected.

2.2 Video stream

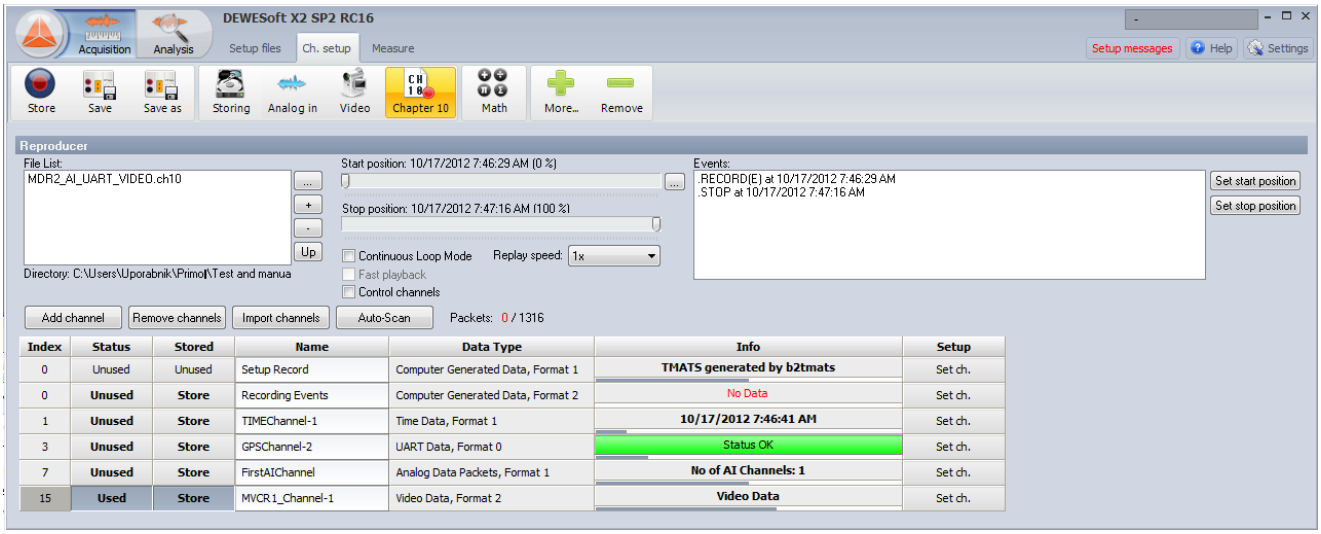
1. To enable Video stream, enable “Telemetry” video under “Devices “, “+”, “camera”:



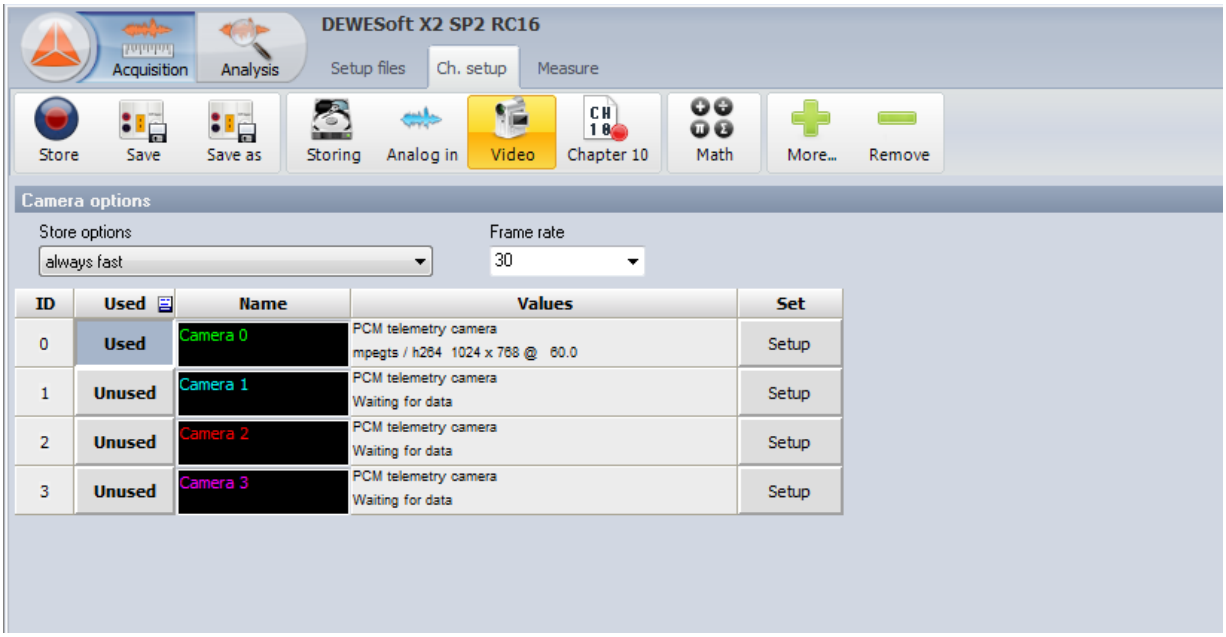
In devices tab, Telemetry camera will be added and there we need to choose the maximum number of systems we want to decode.



2. Under Chapter 10 setup enable Video Data channel:

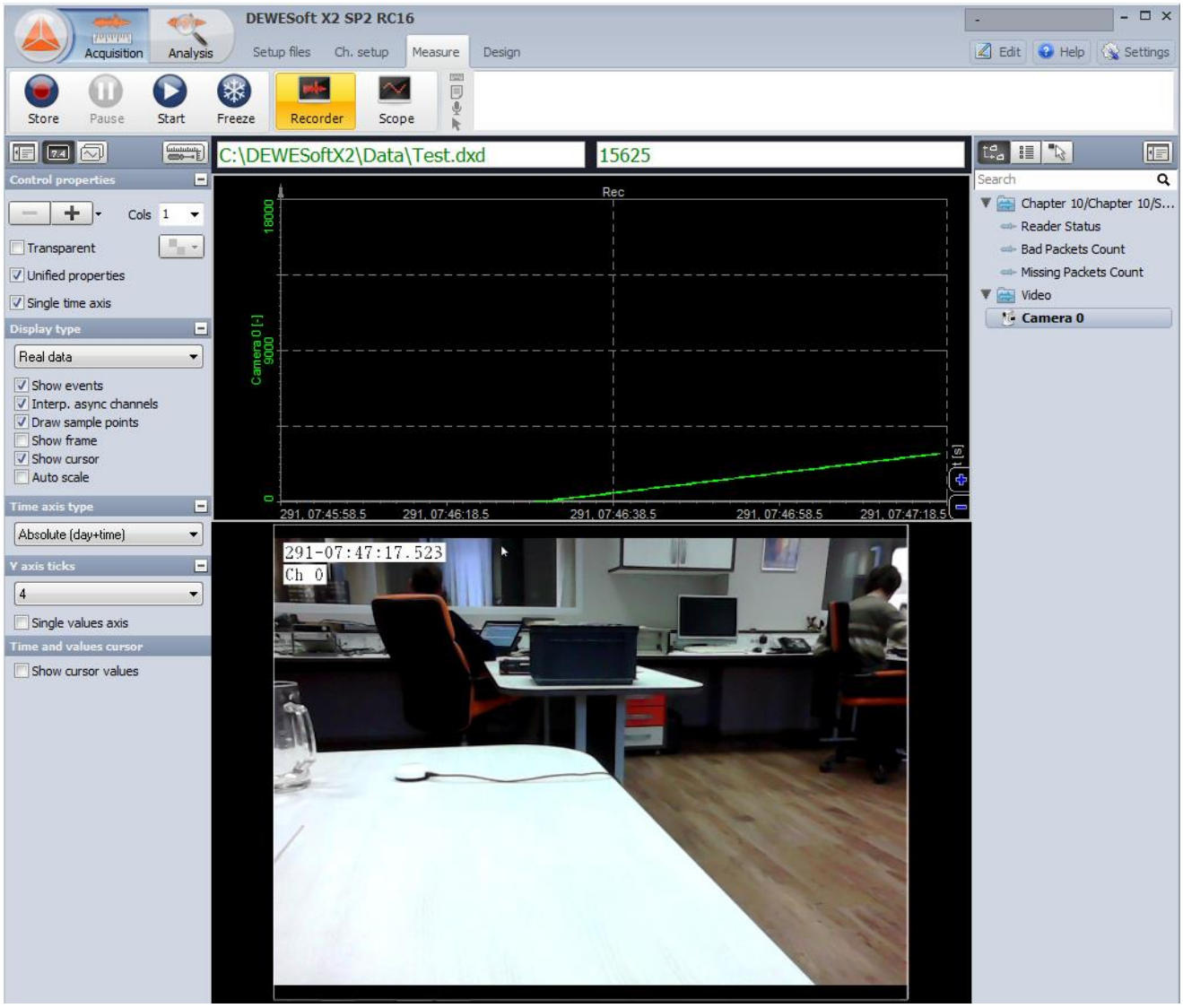


3. Video channels are now seen under ‘Video’ tab:



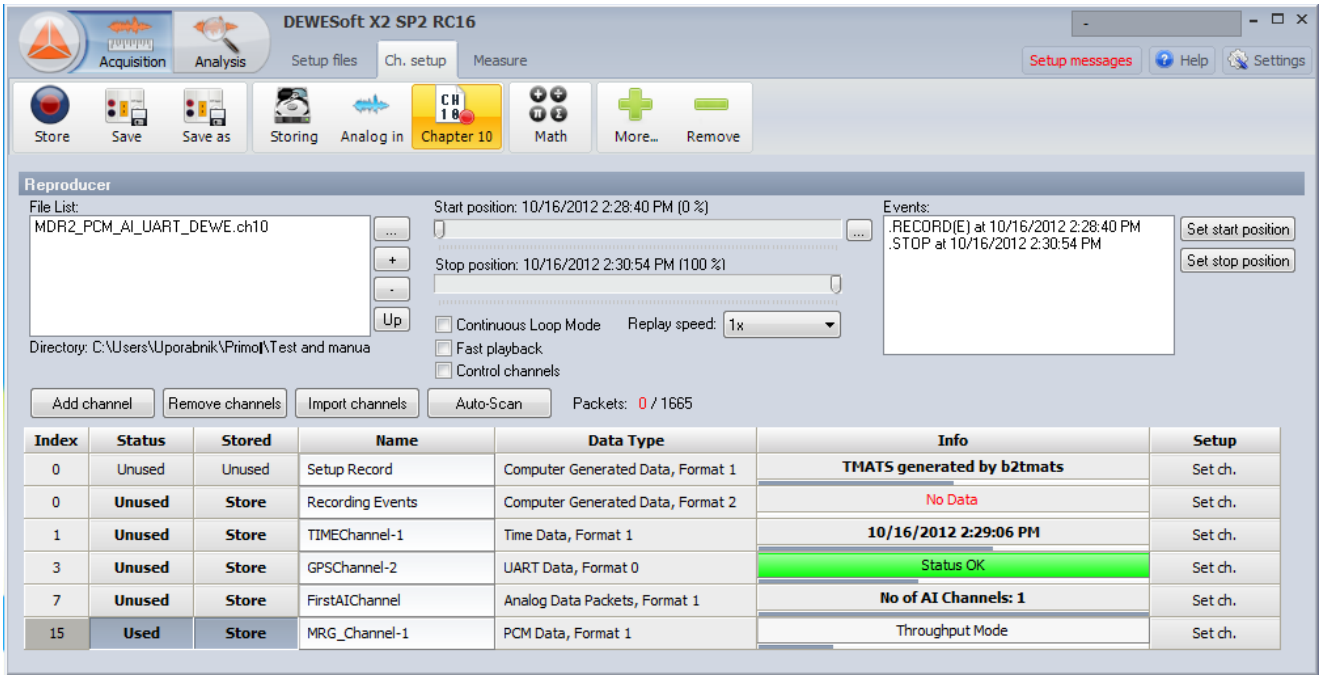
We can preview video stream under ‘Setup’.

4. Finally we present video stream in Measure mode under Design: we choose ‘Video’ visual control and assign ‘Camera 0’ channel to it:

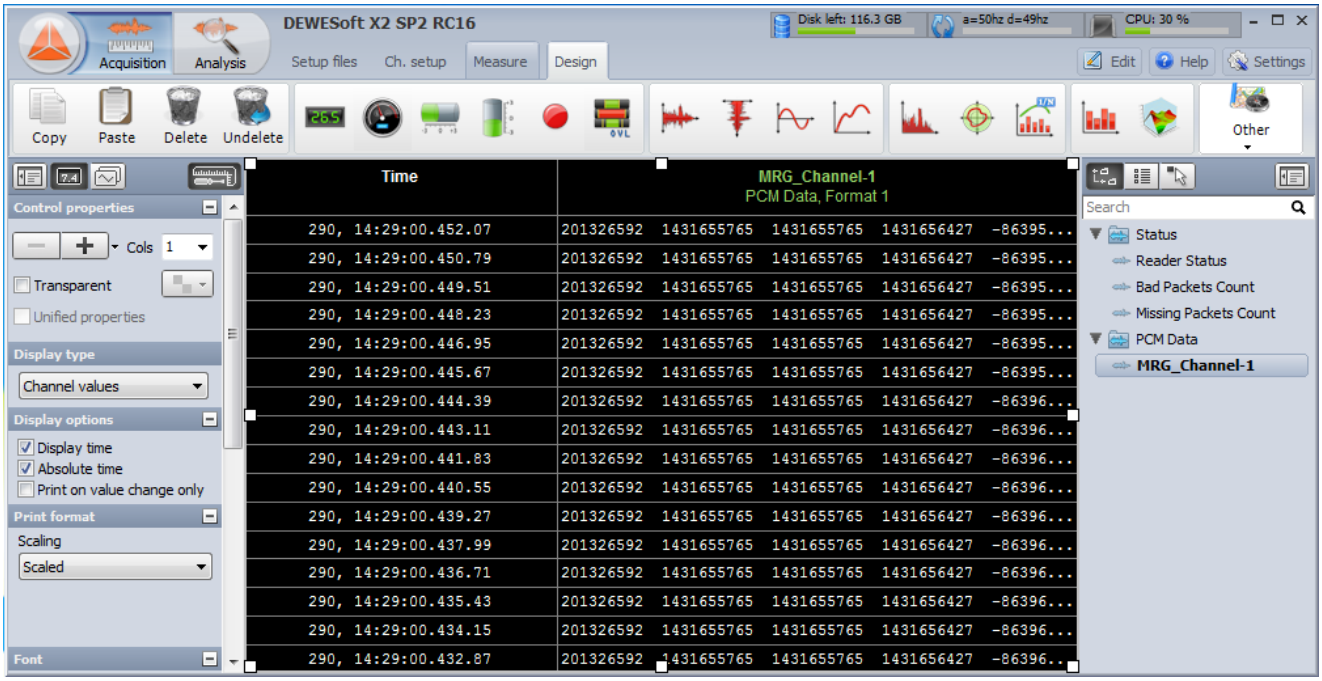


2.3 PCM stream

First we enable PCM channels:



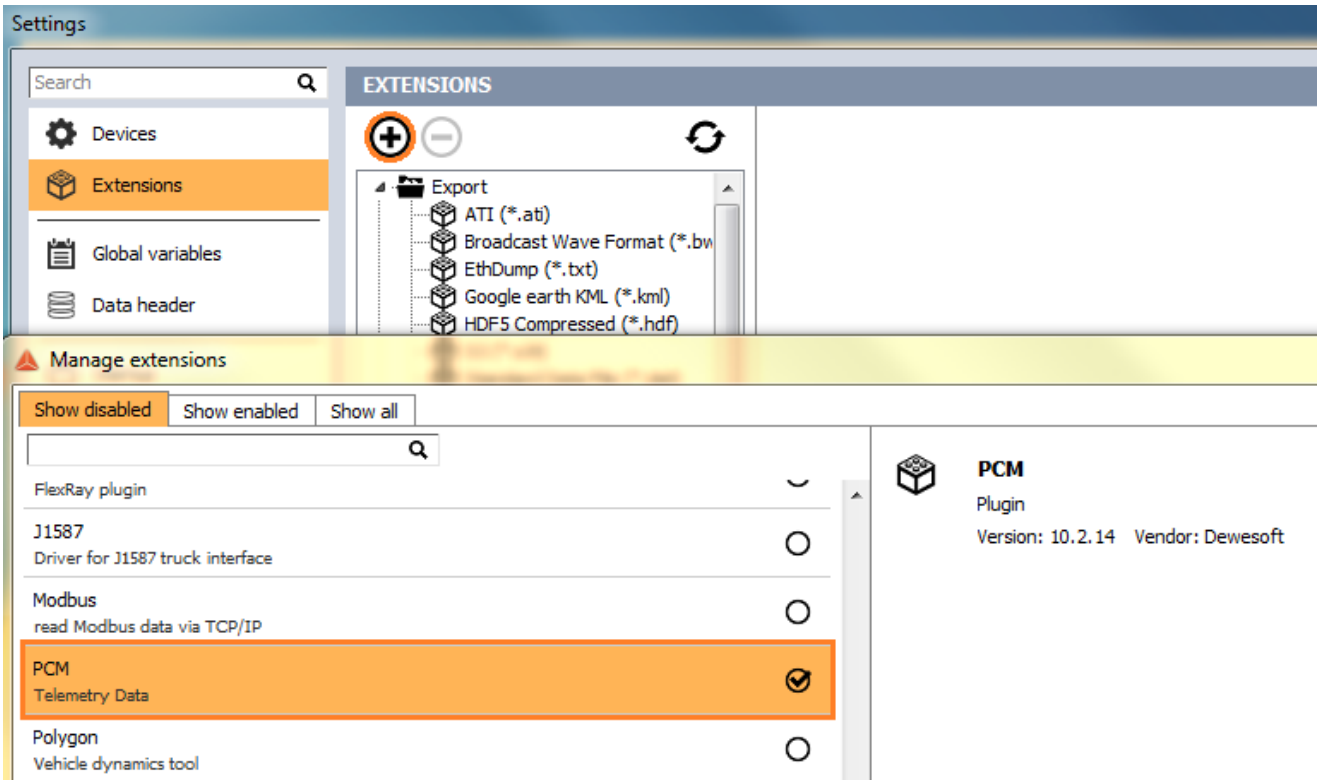
Now we can show PCM channel values in Measure tab > Design > Add tabular display data > select ‘PCM Data’ channel on right. We enabled ‘Raw’ scaling and ‘Hex’ format on in the left section:



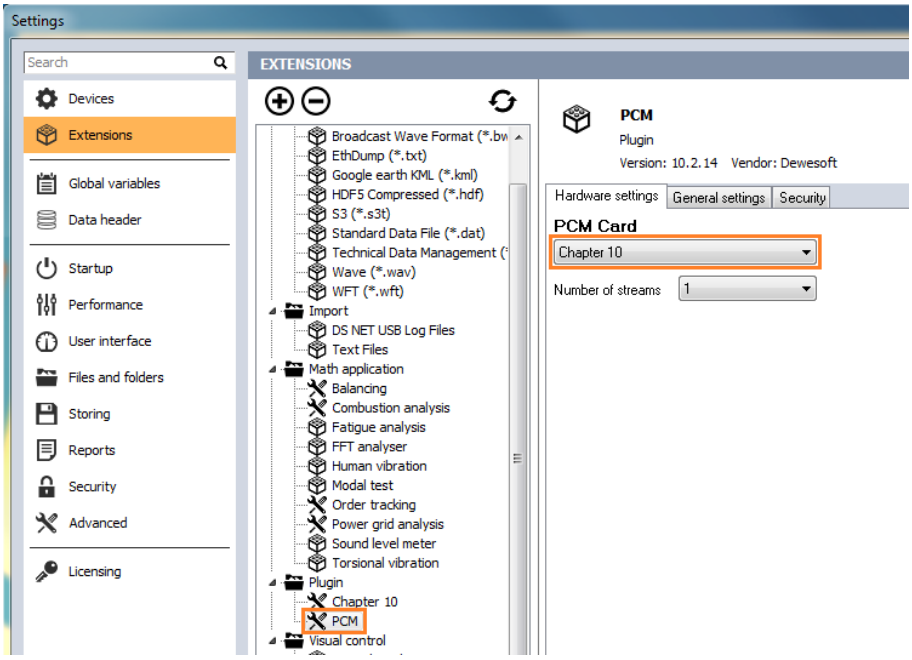
2.3.1 Decoding PCM stream

DEWESoft PCM plugin supports decoding of PCM stream.

1. Go to Settings > Extensions > “+” and enable PCM plugin.

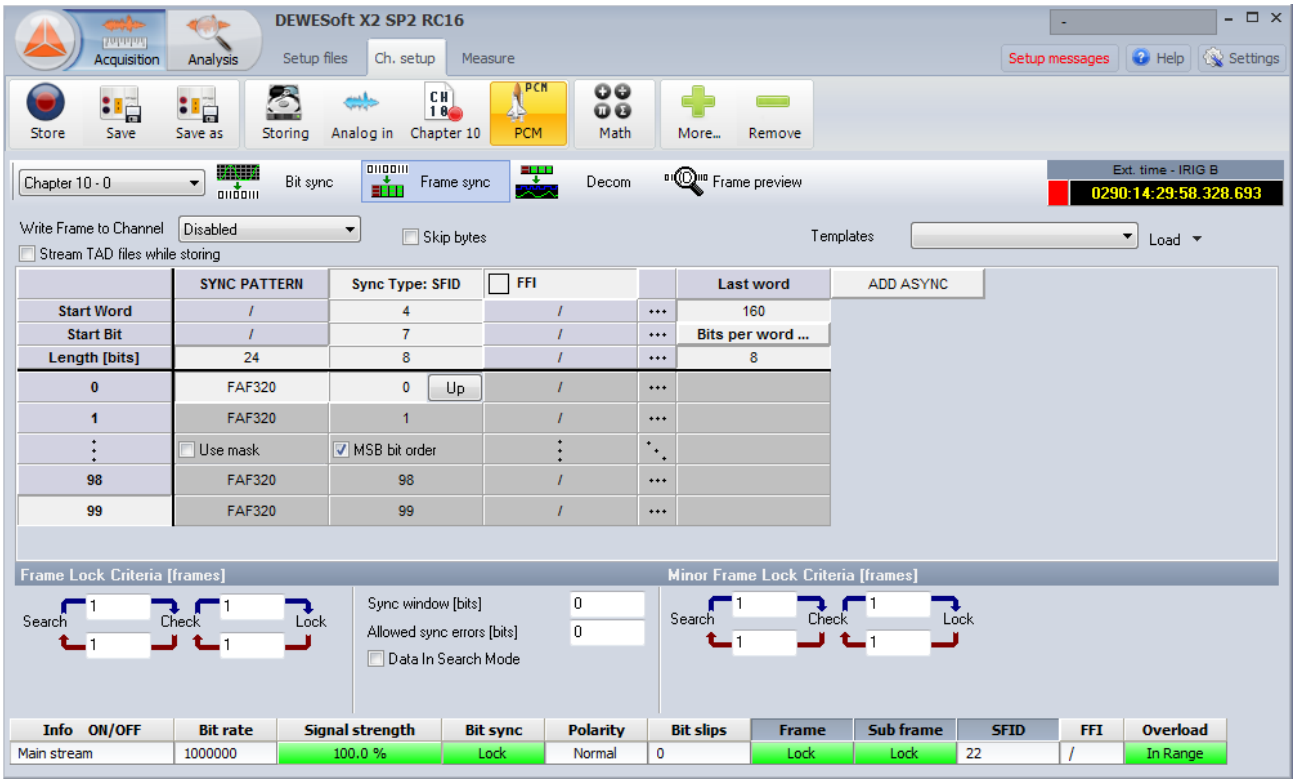


Find PCM plugin under extensions and select ‘Chapter 10’ as PCM card:

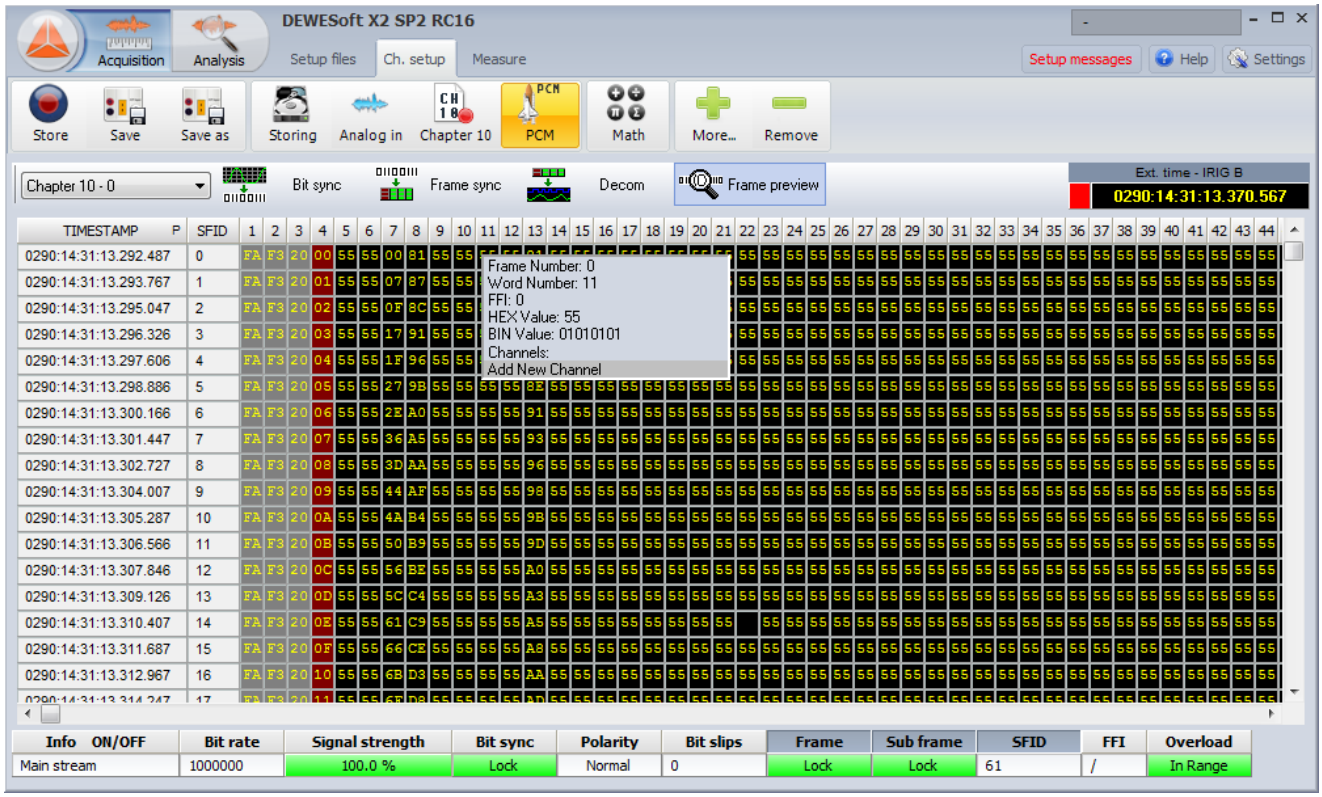


2. Click OK, go to ‘Ch. Setup’, click ‘PCM’ icon, select PCM data as ‘Input Channel’ (it is available if PCM channel is enabled in Ch.10 setup) and click ‘Load Settings from Channel’ button to load setting from Chapter 10 file (TMATS settings):

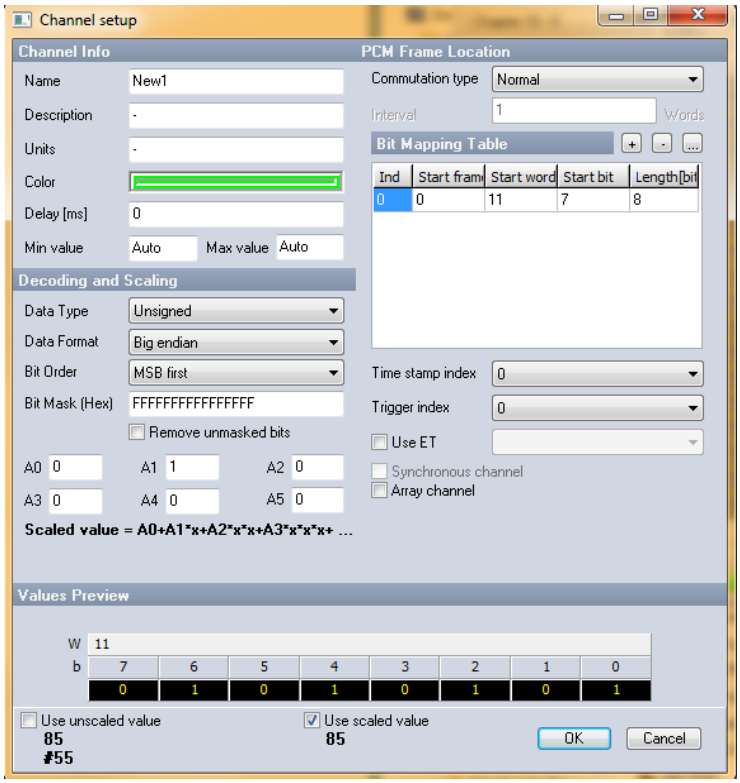
Now we can view ‘Frame sync’ window:



3. To add channel go to ‘Frame preview’ and click on the PCM frame > ‘Add New Channel’:

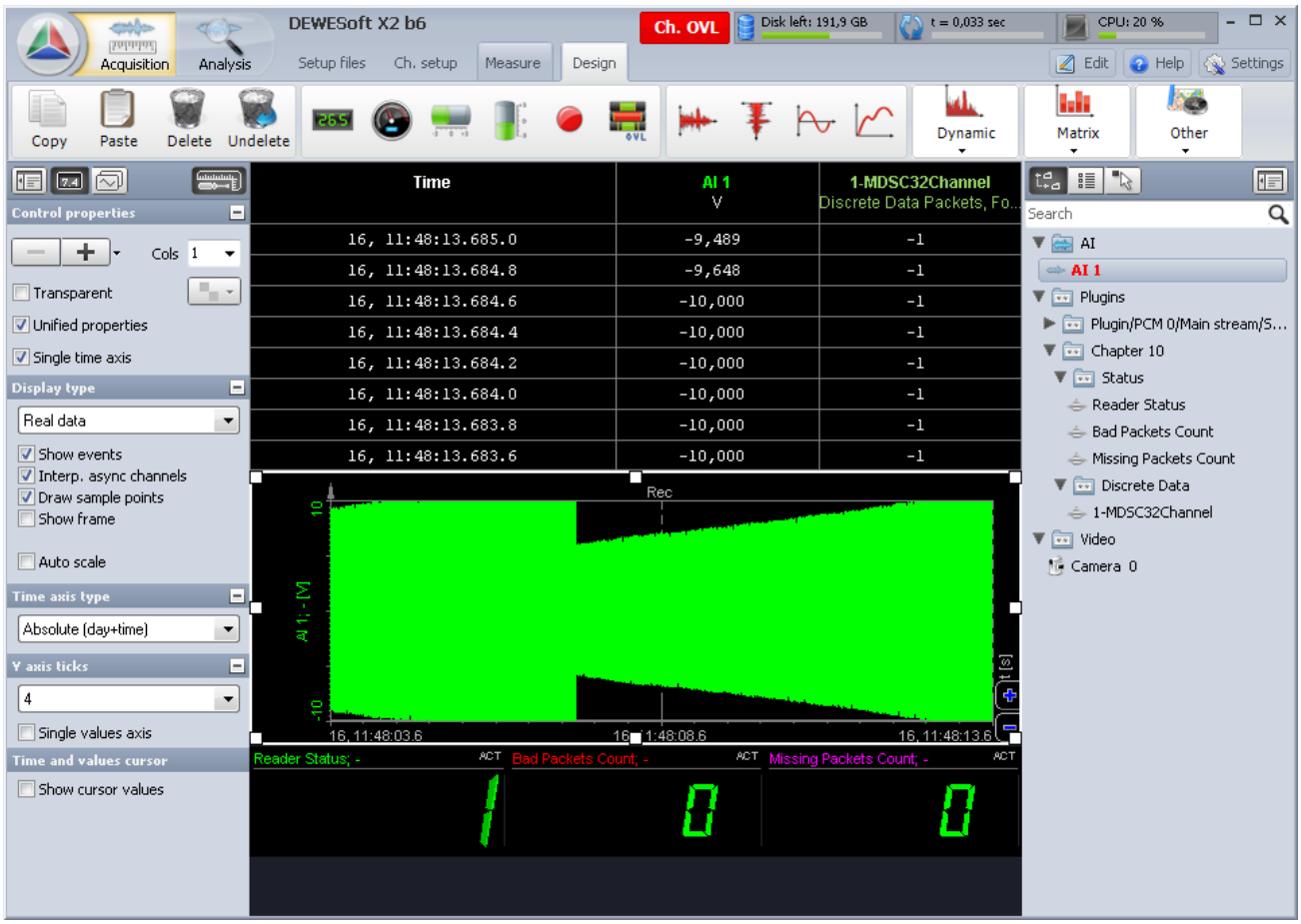


New window opens where parameters of new channel can be set:



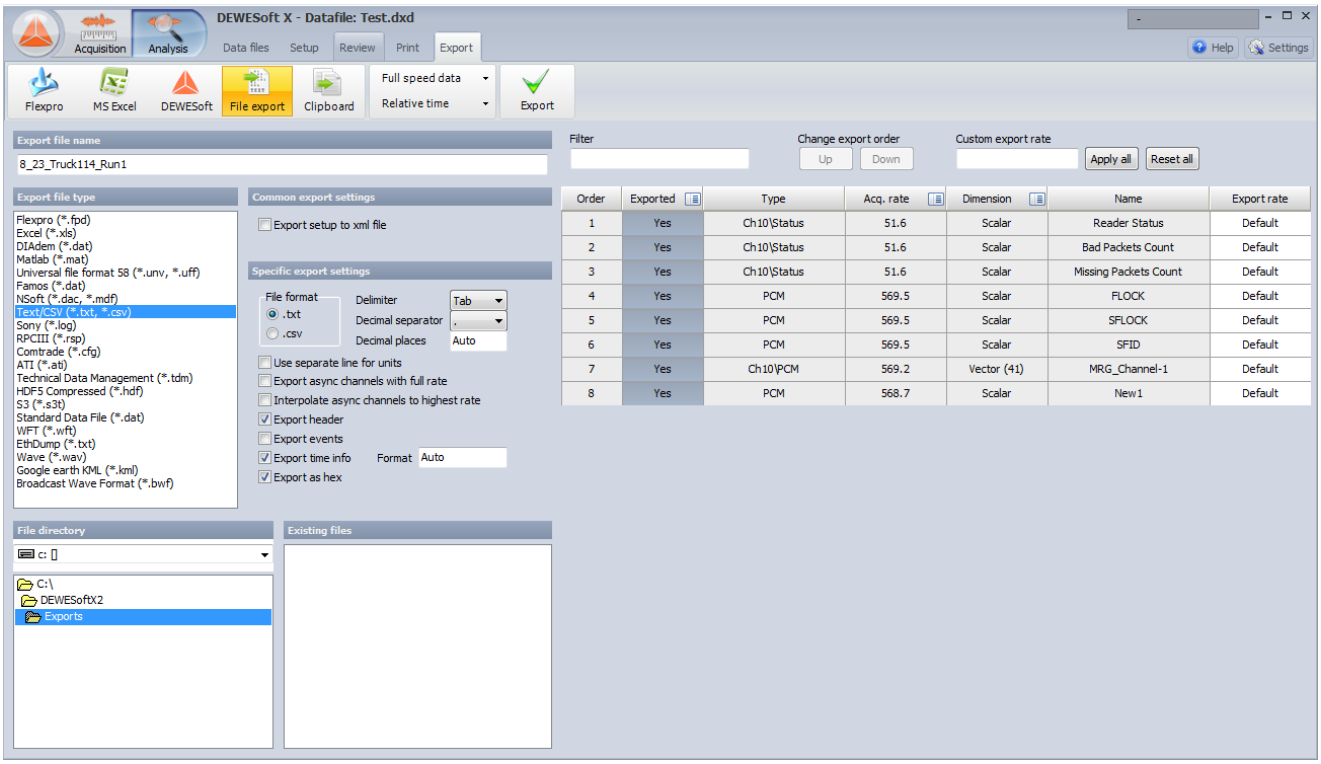
3. Measure

We can view all enabled channels in ‘Measure’ tab on appropriate visual control that we can select and present in ‘Design’ mode. To visualize wanted channels on the displays, we just click on the names on the right panel:



Additionally we can do mathematics live or in ‘Analysis’ mode on all channels under Ch. Setup > Math.

Stored channels can be exported in various formats that DEWESoft supports:



Specific help on the topic can be found by pressing F1 key in the DEWESoft menu where help is needed. While Manuals, Tutorials and How-to documents can be found online:

http://www.dewesoft.com/download#Manuals