DIPA2000i

Particle Size and Shape Analyzer

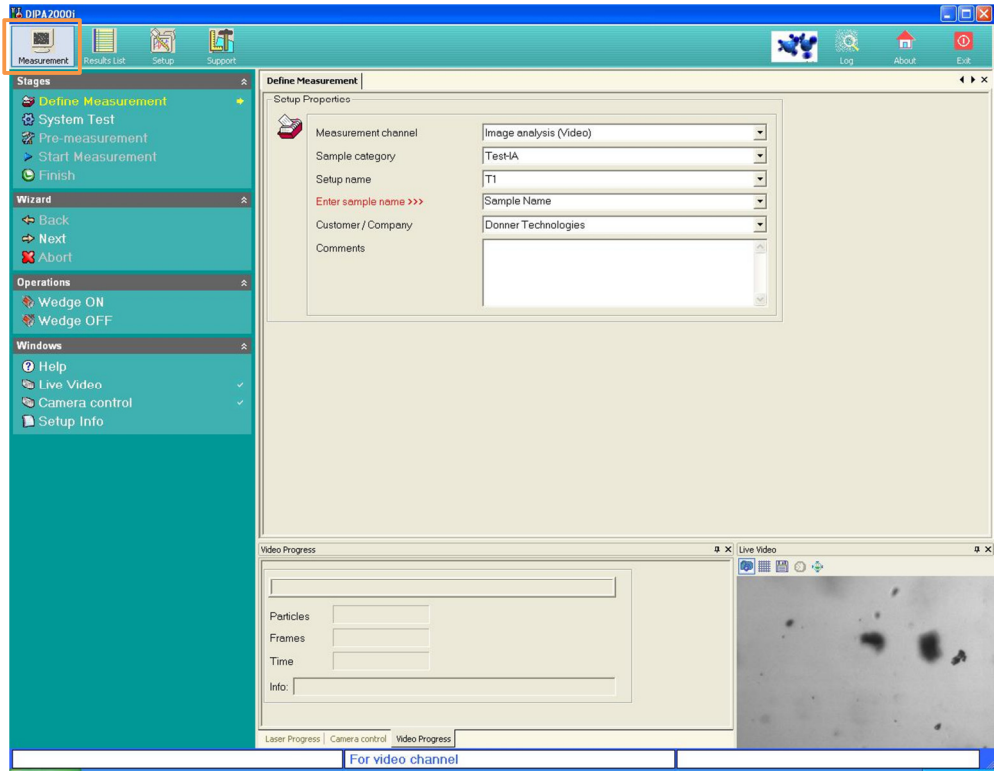
The Ultimate Combination for Particle Characterization

User Guide

Dynamic Image Analysis Measurement

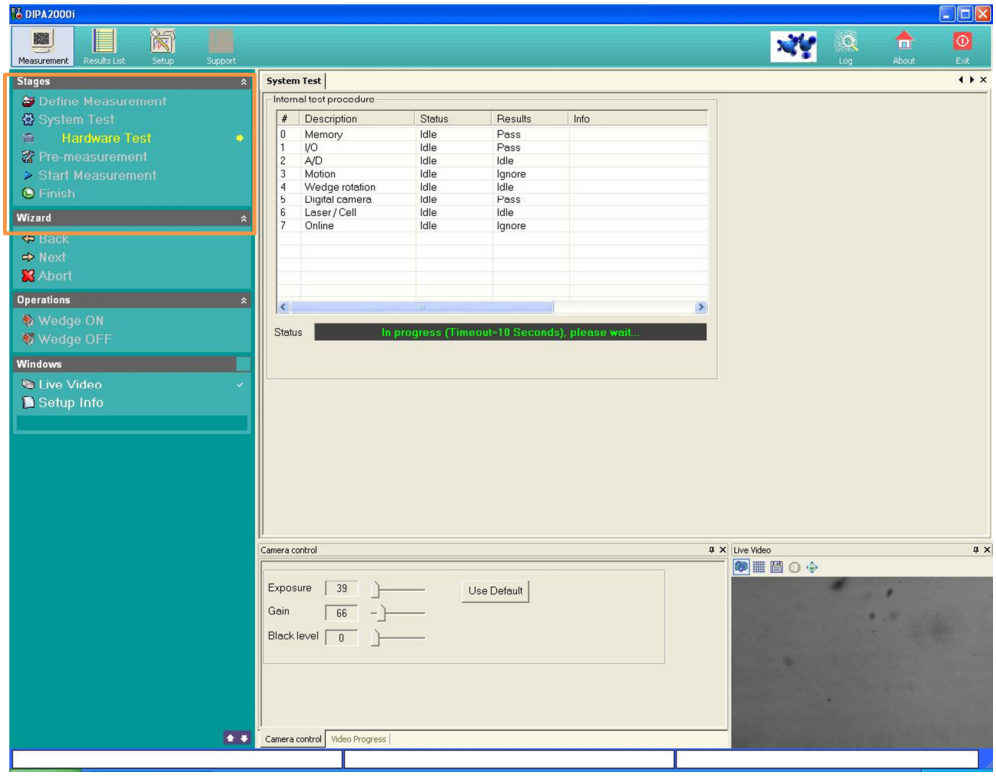
February 2014

To perform a dynamic image measurement, select ***Measurement*** in the navigation bar to start a laser measurement. The ***Define Measurement*** window appears:



- Select ***Image analysis (Video)*** to start a dynamic image analysis measurement.
- After a ***Sample category*** has been selected, only the setups that are linked to this sample category can be selected under ***setup name***.
- Entering a ***sample name*** is required to continue to the following stage.
- With ***Customer or Company*** the results can be linked to a customer or company.
- Entering ***Comments*** regarding the sample is optional.

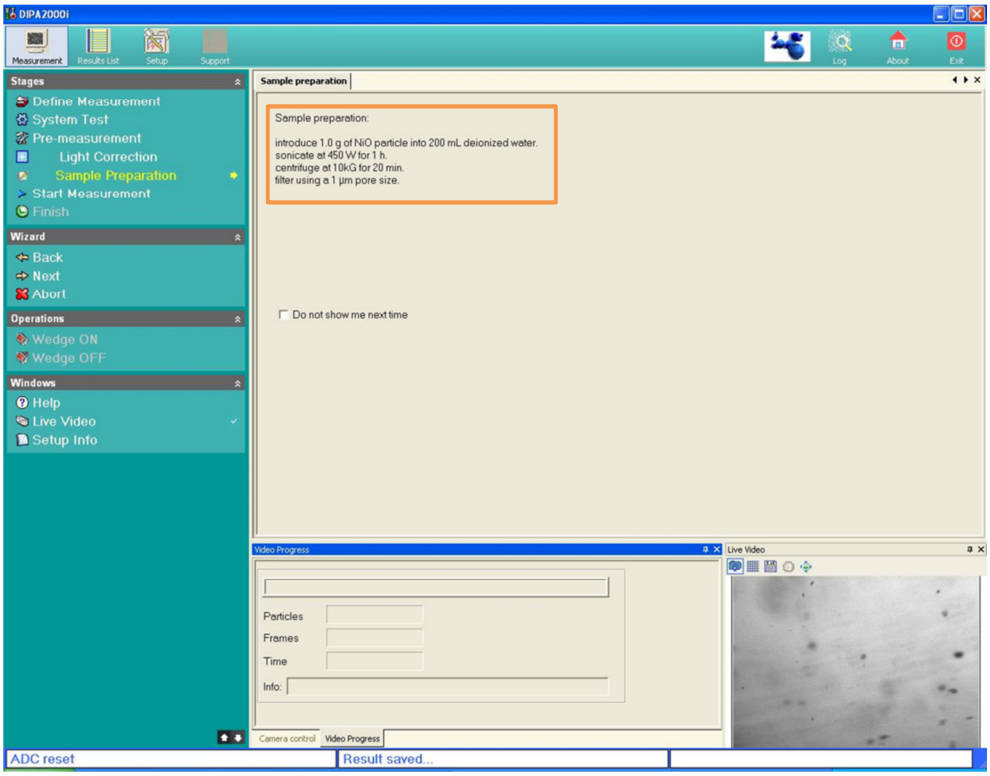
In the 'Stages' bar select ***System Test***:



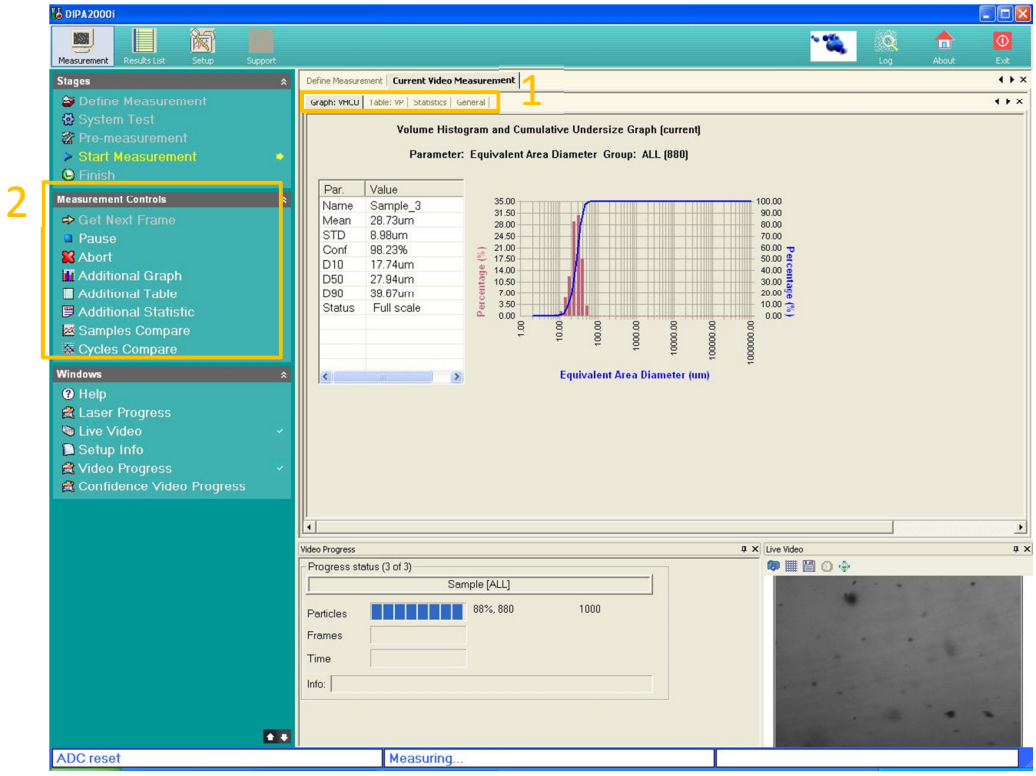
- The System Test is performed to ensure a proper operation of the electronics (Hardware Test) and optics of the system. If the tests pass successfully, the ***Pre-measurement*** stage will start automatically.

- Follow system's instructions in case that any of the tests does not pass.

In the ***Sample preparation*** stage, the preparation instructions appear according to the setup. In case that the background image is not uniform, light correction is required (see appendix).



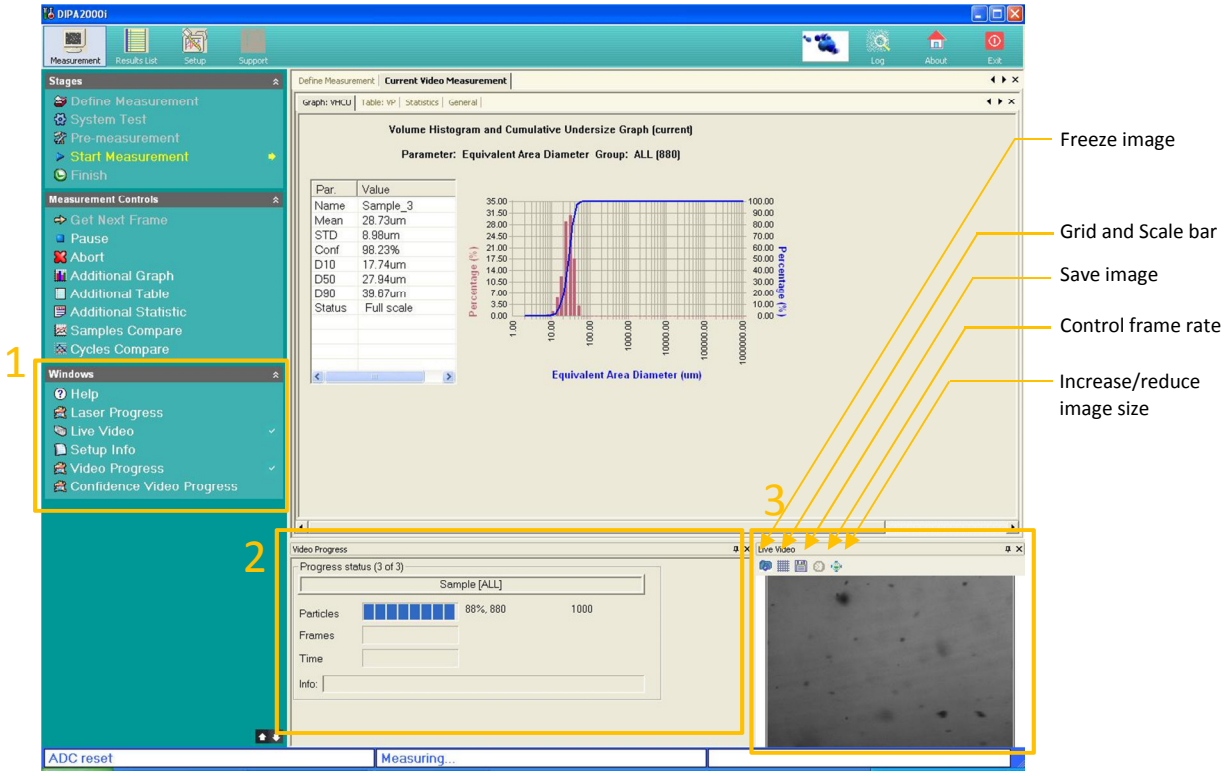
Press **Start Measurement**. During the measurement, the ***Current Video Measurement*** window appears:



- In the main window, the statistics of the recorded data are displayed in real-time by graphs and tables. The tabs bar above (1) enables to switch between different display-modes defined according to the setup.

- The 'Measurement controls' bar (2) enables to **Pause** or **Abort** the measurement (measured data will appear in the results list). **Additional graphs, tables and statistic** with more parameters can be added to the display (added to the tabs bar). The real-time measured data can be compared with previously measured data. For comparison with samples in the results list press **Samples compare** and for comparison with previous cycles in the same measurement press **cycles compare**.

The 'Windows' bar (1) enables to display the following windows: Help, Laser Progress, Live Video, Setup Info, Video Progress and Confidence Video Progress:

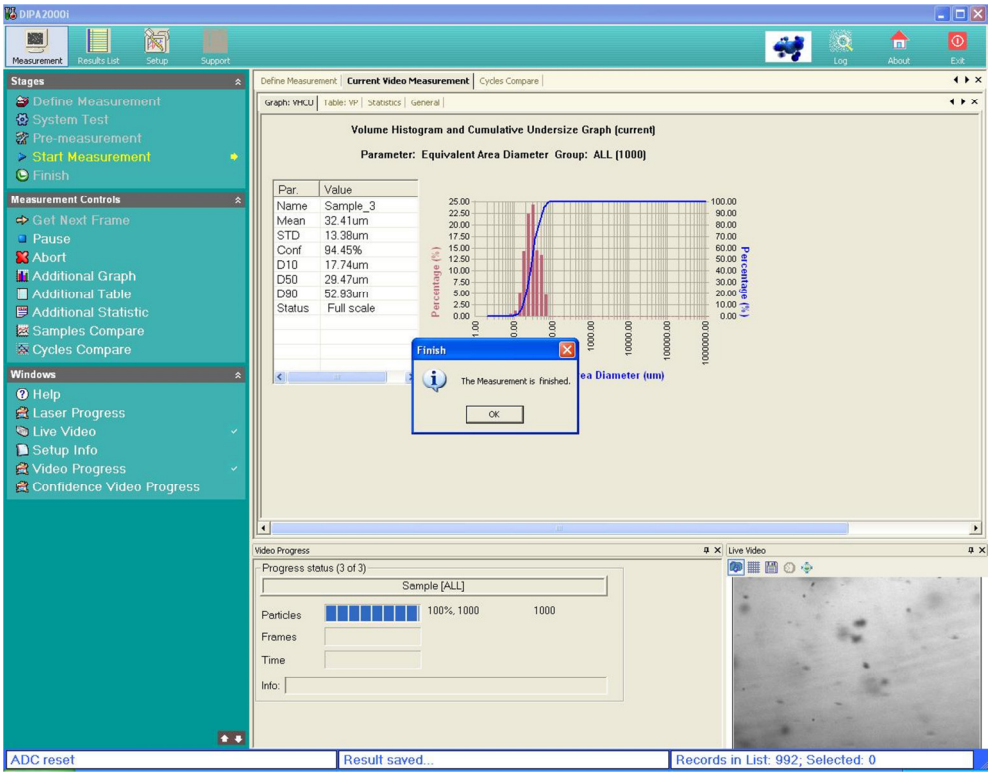


The Video Progress window (2) shows the:

- Progress status, i.e. number of measurement cycle out of total cycles defined the in setup.
- Cycle progression status according to the ending conditions defined in the setup (shown on the right of the progress bar), i.e. Particles, Frames, time and confidence.

In the Live Video window (3), images can be saved manually during the laser measurement using the listed buttons above.

When the video measurement is finished press **OK**



Appendix

Light correction

Explanation: The light correction analysis is used to reach light uniformity, reduction of constant electronic noises on the images and reduction of constant noises on the image (such as scratches). Using the light correction, a reference image is defined and considered as a background. Then it is subtracted from every new acquired image.

Activating light correction:

- Adjust the image to optimal conditions.
- Press the Start Light Correction Analysis button.
- Make sure that the measurement zone is free of particles and press **OK**.