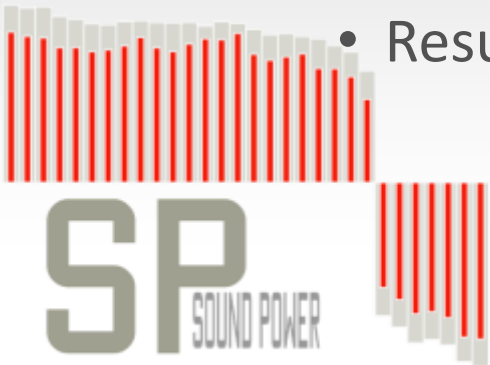
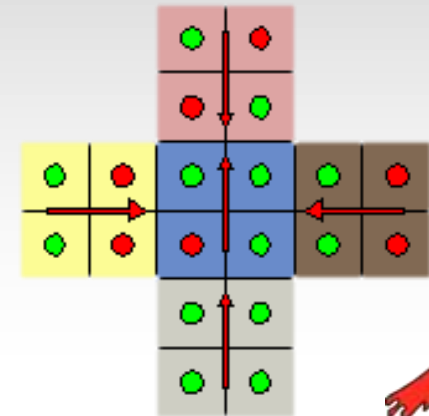
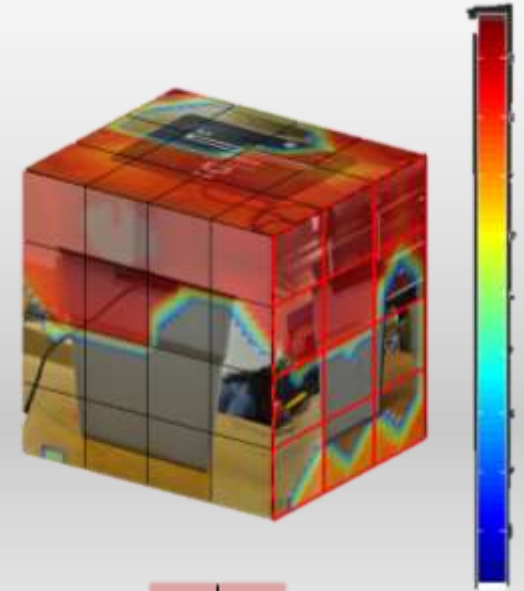


SOUND POWER CHARACTERIZATION ON A 3D MODEL FOLLOWING THE MEASUREMENT PROCEDURE OF ISO -9614.

# SP MAIN FEATURES

- Sound power/intensity/particle velocity/pressure...
- Results overlaid on 3D object
- Strict measurement quality controls" ISO 9614
- Point by point control
- Full project progress control
- Final project variability control
- Result frequency and spatial analysis and comparison
- Guided measurement process
- Result export to main data platform formats



# SP WORKFLOW

## HW setup

- Select frontend
- Activate sensors
- Arrange channels

## Measurement setup

- Measurement shape & pictures
- Select the measurement settings (All constants will not be editable after this step)

## Capture

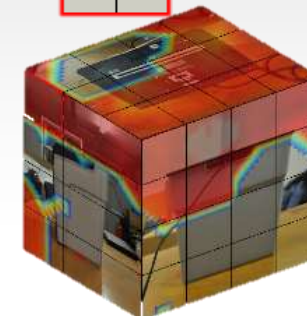
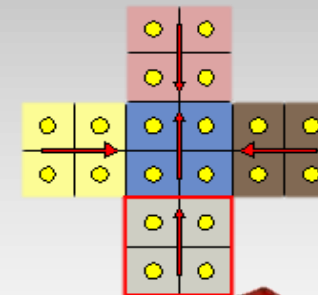
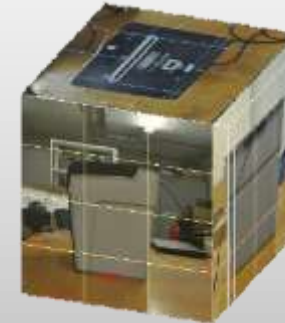
- Real time view and signal control
- Acquisition and data storage
- Basic measurement checkup and status control

## Analyse

- Review of the measurement results.
- Exporting

## Report

- Generate a full measurement report, later to be stored as pdf/jpeg



# DATA ACQUISITION

- 2 channels acquisition and processing (PU probe)
- No reference sensor

Probe	out	DAQ channel
srer, PU Probe	P	3
3, PU Probe		
ffff, PU Probe		

- Edit probe
- Edit tag
- Change probe
- Add probe above
- Remove probe

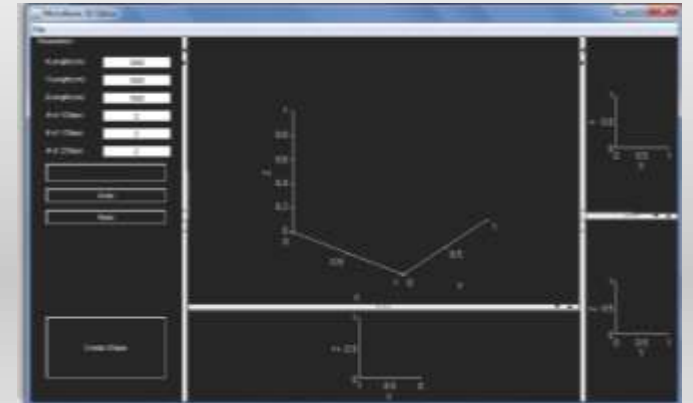
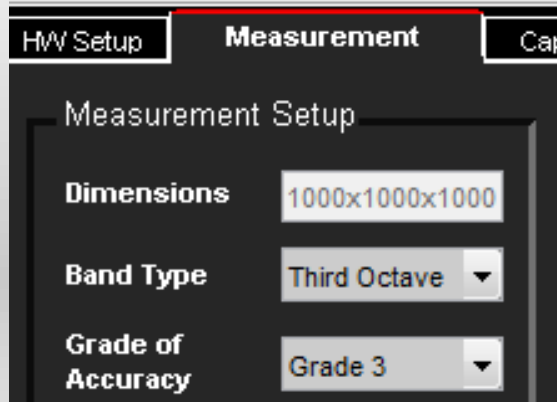
Probe database

Edit   Add:   Microphon...   Remove



# MEASUREMENT SETUP

- Definition of the measured shape: compatible with 3D shape generator

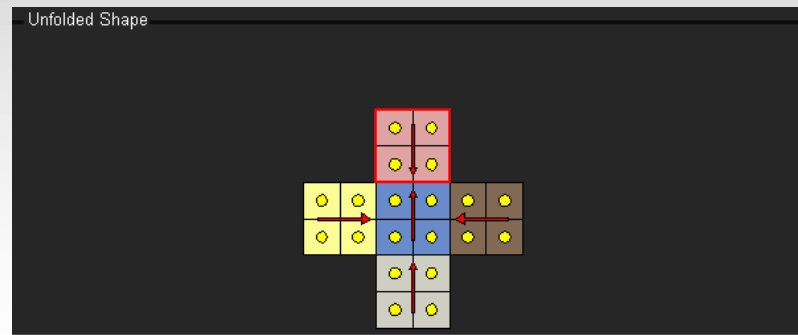
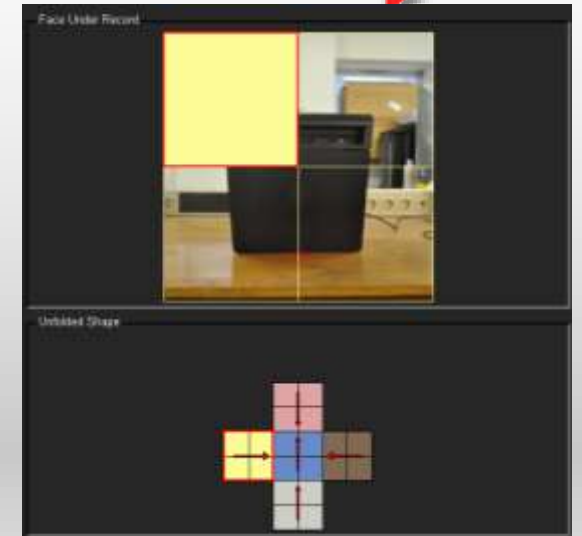


- Definition of the measurement constraints: fixed parameters for the whole project
  - Results accuracy grade ( ISO 9614)
  - Band description



# CAPTURE PROCEDURE

- Measurement point selection
- Signal control and status
- Project progress control
- Acquisition and storage
- Quality check and ISO 9614 approach



DT9837-A | DT9837-A | 50% window overlap | 7 averaging windows over 0.9427 Seconds | Fs: 48000 Hz | FFT time: 0.0025 Seconds | Video memory load: 66% | Video buffer use: 0%

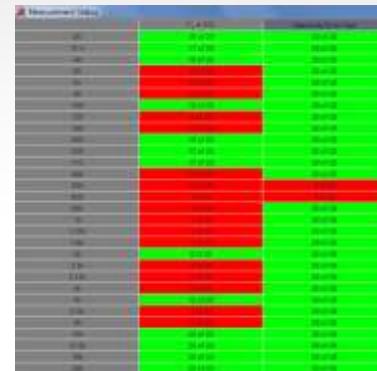
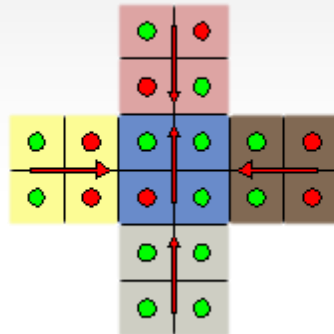


# QUALITY CHECKS

- Segment related Quality checks:
    - Temporal variability indicator: stationary of the samples
    - Reactivity index criteria: amount of propagating energy
- Color code for segment-based checks status indication

Once all segments are measured, the global quality checks are tested:

- Global quality checks:
  - Field non-uniformity : variation in the measured sound field.
  - Net power (In/Out): Evaluates soundpower sign



# ANALYZE DATA

- Analyze project data
- Compare result by area
- Export project data file

