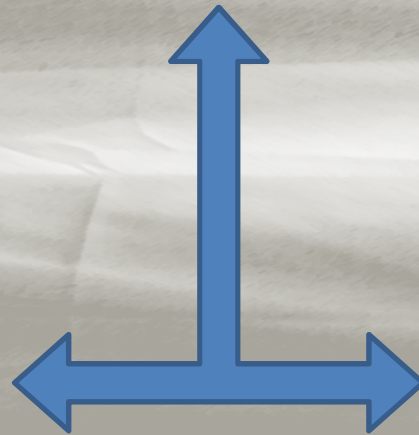


Technology about acoustic visualization – 3D localization by ACB Engineering

ACB Engineering, it was more than 15 years for developpments and services about visualizing sources and noises detection.

Acoustic camera has the same interest that Thermic camera in finding where comes from troubles.



ACB Engineering

IMC technology – HD Acoustic visualization

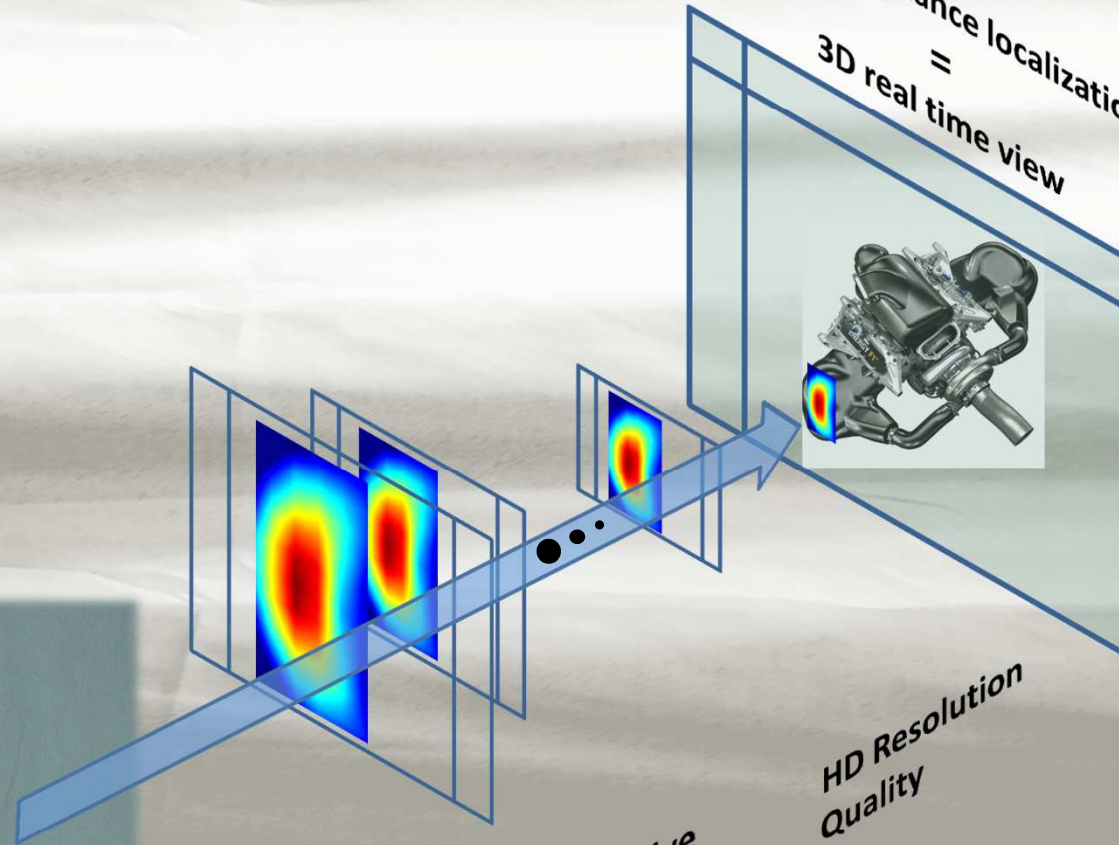
ACB Engineering

Video camera
+
Acoustic distance localization
=
3D real time view

HD Resolution
Quality

Iterative
Matrix
Calculation

Beamforming

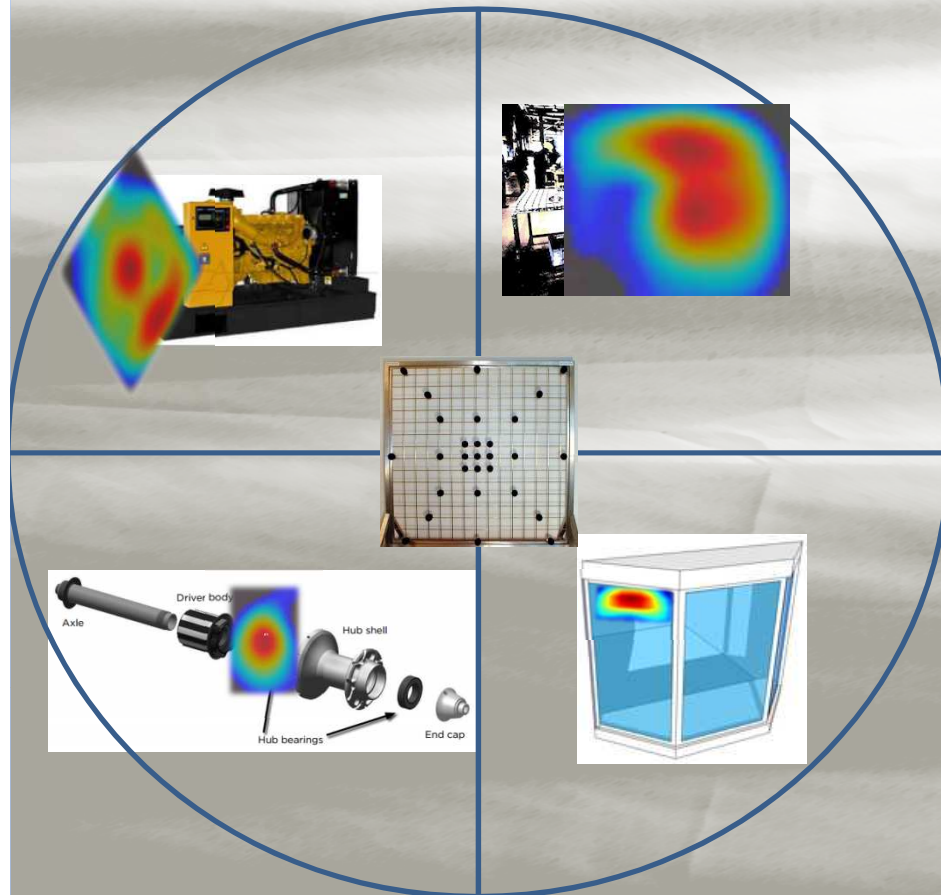


IMC technology – HD Acoustic visualization

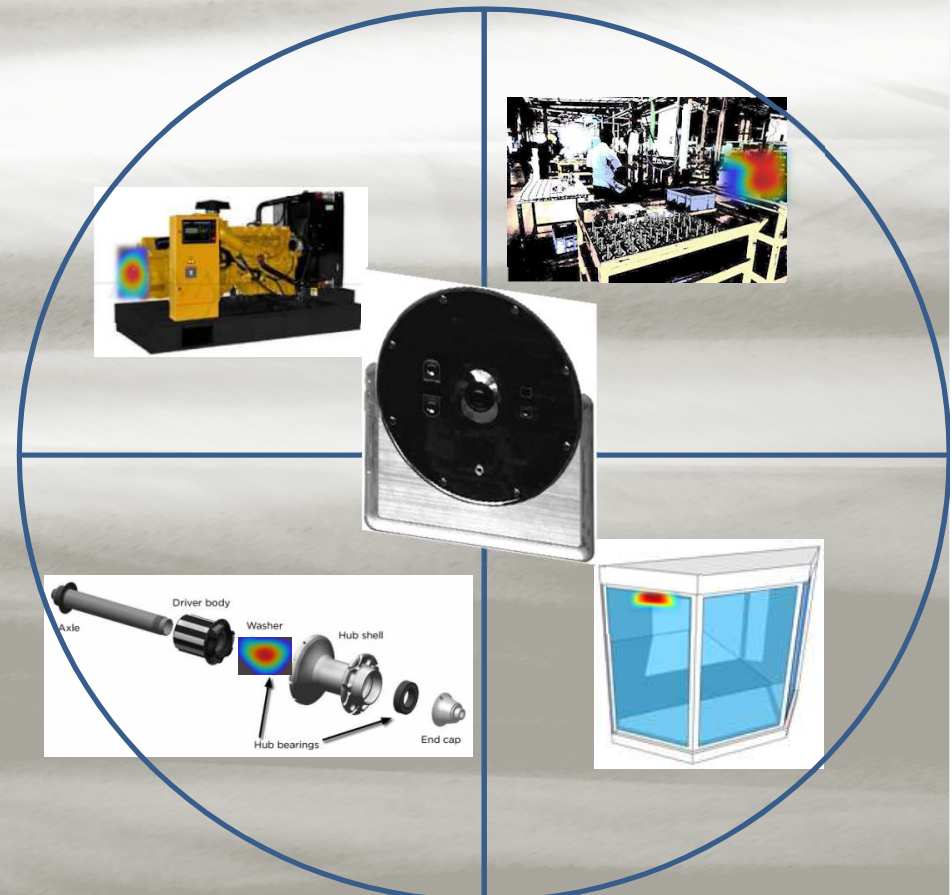
ACB Engineering

Helpful in many sectors and for many uses :

R&D stage for design concerns / Inspection → regulation requirements or maintenance costs reduction



Classical Beamforming :
localization resolution depends on kind of noises



MSV IMC technology :
constant accurate HD resolution, whatever cases



Mobile Sound Viewer Datasheet

Page 1 / 1

Version : 1

Presentation

In noisy environment, best method to reduce global noise in the most efficient use is to reduce the major source. In this way, Mobile Sound Viewer is the perfect solution in showing you where comes from major noise by a spot on video.

Mobile Sound Viewer is a patented system that consists on digital touch screen 10'' and accessory for audio capture, controls by MSV software. In real time mode, a spot on the video shows different kind of noises according to your needs.

Record mode allows to export pictures or video after sound identification. It's possible to save data too and forward it to expert service that return back acoustic images in HD resolution to you.

Ease to use in seeing noise by a spot on video, Mobile Sound Viewer provides efficient result in order to alleviate problem.










Key Benefits







- ☐ Real time video seen on the screen as a camcorder.
- ☐ Full automatic setup
- ☐ Shows where comes from loudest source,
- ☐ Usable everywhere by everybody
- ☐ Ultra compact system.
- ☐ Shows acoustic level of noise in dBA

Hardware Specifications

Processor Unit

-  Sample frequency 15 kHz, 16 bits
-  60 minutes of storage
-  Deca Core 2GHz - 4GB RAM – 64 bits
-  Screen resolution 2560 x 1600,
-  Capacitive multi touch screen
-  Internal Battery (3 hours in heavy use, 1 day in normal use),
-  Weight 0.45Kg

Accessory capture

-  8 micros 20Hz – 20 000Hz
(160-6000 Hz par software limitation)
-  Auto-focus par optical system
-  Electronic A/D conversion
-  Ergonomic hull in bio-plastic
-  Weight 0.4Kg
-  Size : 0.3m x 0.2m x 0.03m

Software Specifications

-  Frame rates 15 img / second
-  Usual mode (vision of loudest source)
-  Auto focus (0.2 to 5m)
-  Saturation Alert / Automatic tuning
-  Manuel distance (0.2 to 100m)
-  Scanning mode
-  Sonometer
-  Record mode (pictures, video, data)

Packing

Suitcase including Mobile Sound Viewer, headphone, charger, micro for sonometer. Analysis Sound Viewer software available.



Mobile Sound Viewer Datasheet

Page 1 / 1

Version : 2

Presentation

In noisy environment, best method to reduce global noise in the most efficient use is to reduce the major source. In this way, Mobile Sound Viewer is the perfect solution in showing you where comes from major noise by a spot on video.

Mobile Sound Viewer is a patented system that consists on digital touch screen 10'' and accessory for audio capture, controls by MSV software. In real time mode, a spot on the video shows different kind of noises according to your needs. It's true that it's possible to select what kind of noise is showing on screen as the loudest source or special sound.

Record mode allows to export pictures or video after sound identification. It's possible to save data too and forward it to expert service that return back acoustic images in HD resolution to you.

Ease to use in seeing noise by a spot on video, Mobile Sound Viewer provides efficient result in order to alleviate problem.










Key Benefits







- ☐ Real time video seen on the screen as a camcorder.
- ☐ Full automatic setup
- ☐ Shows where comes from loudest source, or special sound.
- ☐ Usable everywhere by everybody
- ☐ Ultra compact system.
- ☐ Shows acoustic level of noises in dBA

Hardware Specifications










Processor Unit

-  Sample frequency 15 kHz, 16 bits
-  60 minutes of storage
-  Deca Core 2GHz - 4GB RAM – 64 bits
-  Screen resolution 2560 x 1600,
-  Capacitive multi touch screen
-  Internal Battery (3 hours in heavy use, 1 day in normal use),
-  Weight 0.45Kg

Accessory capture

-  8 micros 20Hz – 20 000Hz (160-6000 Hz par software limitation)
-  Auto-focus par optical system
-  Electronic A/D conversion
-  Ergonomic hull in bio-plastic
-  Weight 0.4Kg
-  Size : 0.3m x 0.2m x 0.03m

Software Specifications

-  Frame rates 15 img / second
-  Usual mode (vision of loudest source)
-  Listen filtered mode (vision of special sound)
-  Auto focus (0.2 to 5m)
-  Saturation Alert / Automatic tuning
-  Manuel distance (0.2 to 100m)
-  Scanning mode
-  Sonometer
-  Record mode (pictures, video, data)

Packing

Suitcase including Mobile Sound Viewer, headphone, charger, micro for sonometer. Analysis Sound Viewer soft available



Mobile Sound Viewer Datasheet

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Version : 3

Presentation

In noisy environment, best method to reduce global noise in the most efficient use is to reduce the major source. In this way, Mobile Sound Viewer is the perfect solution in showing you where comes from major noise by a spot on video.

Mobile Sound Viewer is a patented system that consists on digital touch screen 10'' and accessory for audio capture, controls by MSV software. In real time mode, a spot on the video shows different kind of noises according to your needs. It's true that it's possible to select what kind of noise is showing on screen as the loudest source, transient events, or special sound (depending on the version). Record mode allows to export pictures or video after sound identification. It's possible to save data too and forward it to expert service that return back acoustic images in HD resolution to you. Ease to use in seeing noise by a spot on video, Mobile Sound Viewer provides efficient result in order to alleviate problem.










Key Benefits







- ☐ Real time video seen on the screen as a camcorder.
- ☐ Full automatic setup
- ☐ Shows where comes from loudest source, short events, or special sound.
- ☐ Usable everywhere by everybody
- ☐ Ultra compact system.
- ☐ Shows acoustic level of noises in dBA
- ☐ post processing software ANALYSIS SOUND VIEWER available

Hardware Specifications











Processor Unit

-  Sample frequency 15 kHz, 16 bits
-  60 minutes of storage
-  Deca Core 2GHz - 4GB RAM – 64 bits
-  Screen resolution 2560 x 1600,
-  Capacitive multi touch screen
-  Internal Battery (3 hours in heavy use, 1 day in normal use),
-  Weight 0.45Kg

Accessory capture

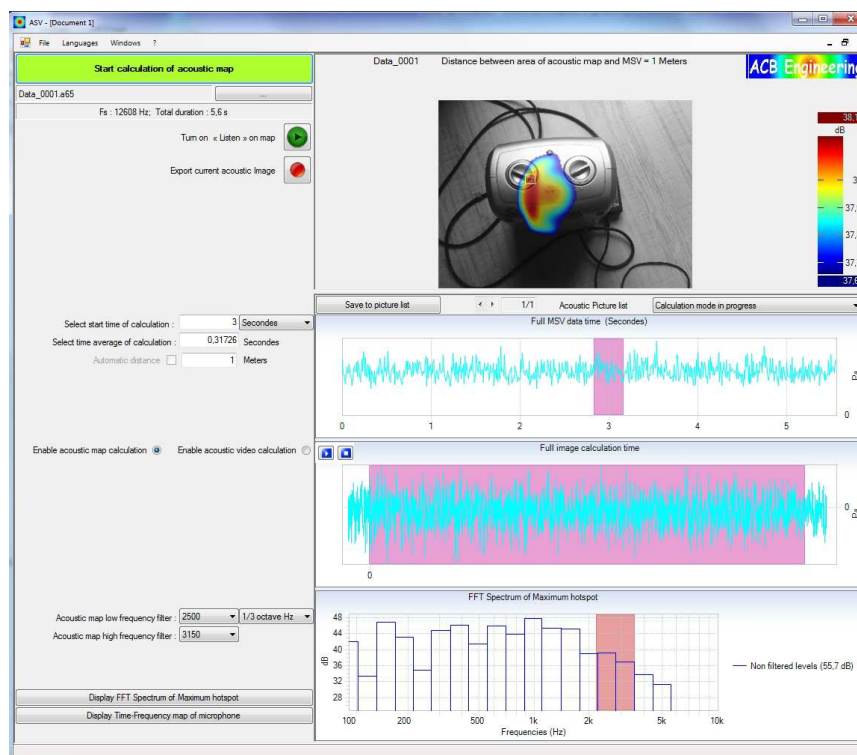
-  8 micros 20Hz – 20 000Hz (160-6000 Hz par software limitation)
-  Auto-focus par optical system
-  Electronic A/D conversion
-  Ergonomic hull in bio-plastic
-  Weight 0.4Kg
-  Size : 0.3m x 0.2m x 0.03m

Software Specifications

-  Frame rates 15 img / second
-  Usual mode (vision of loudest source)
-  Impulsive mode
-  Listen filtered mode (vision of special sound)
-  Auto focus (0.2 to 5m)
-  Manuel distance (0.2 to 100m)
-  Scanning mode
-  Sonometer
-  Record mode (pictures, video, data)
-  Saturation Alert / Automatic tuning

Packing

Pack MSV including headphone, charger, micro for sonometer, Analysis Sound Viewer Soft available.



Presentation





Analysis Sound Viewer is the acoustic imaging software to analyse data saved from Mobile Sound Viewer. Datafile from MSV includes video in order to synchronize pictures and acoustic maps at everytime. Analysis Sound Viewer provides spectrum of hotspot coming from sound source. User can see acoustic video too in according to low and high filter bands.

Key benefits





- ❑ Spectrum of the acoustic source
- ❑ Listen on the microphone and the acoustic map via mouse cursor
- ❑ Synchronization of video and acoustic map at everytime.
- ❑ Calculation of acoustic level in dB of the source.

Main features

Graphic visualization

-  Time envelope,
-  Time signal,
-  Spectrogram
-  Adjustement of transparency

Result Details

-  Principal source localization,
-  Acoustic image in dB
-  Acoustic Video
-  Spectrum of source (Lin, octav, 1/3 octav)

Exportation

-  Pictures by jpg format,
-  Video by avi format