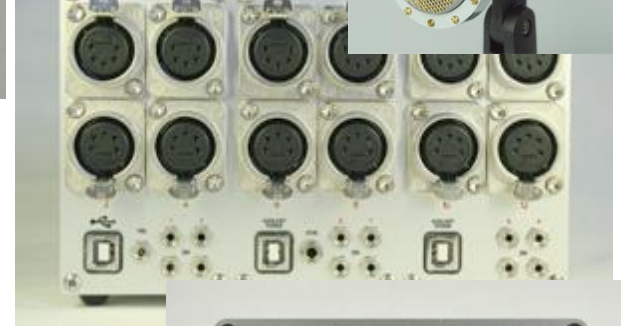
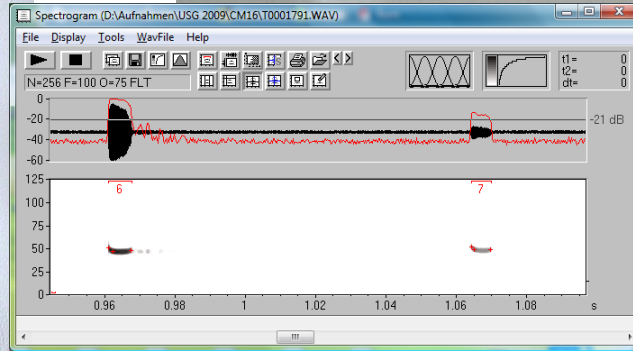
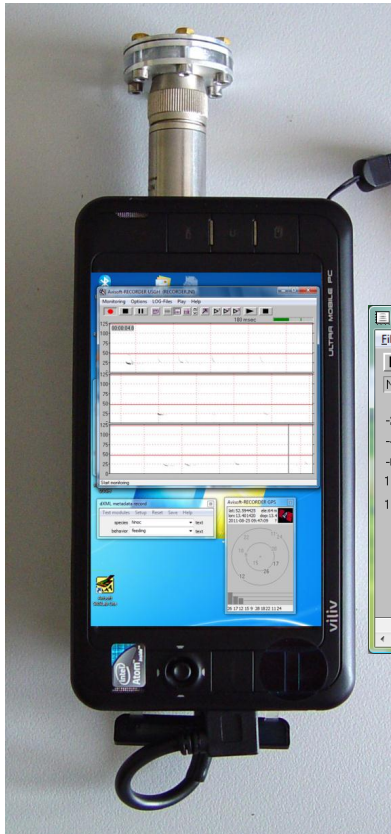


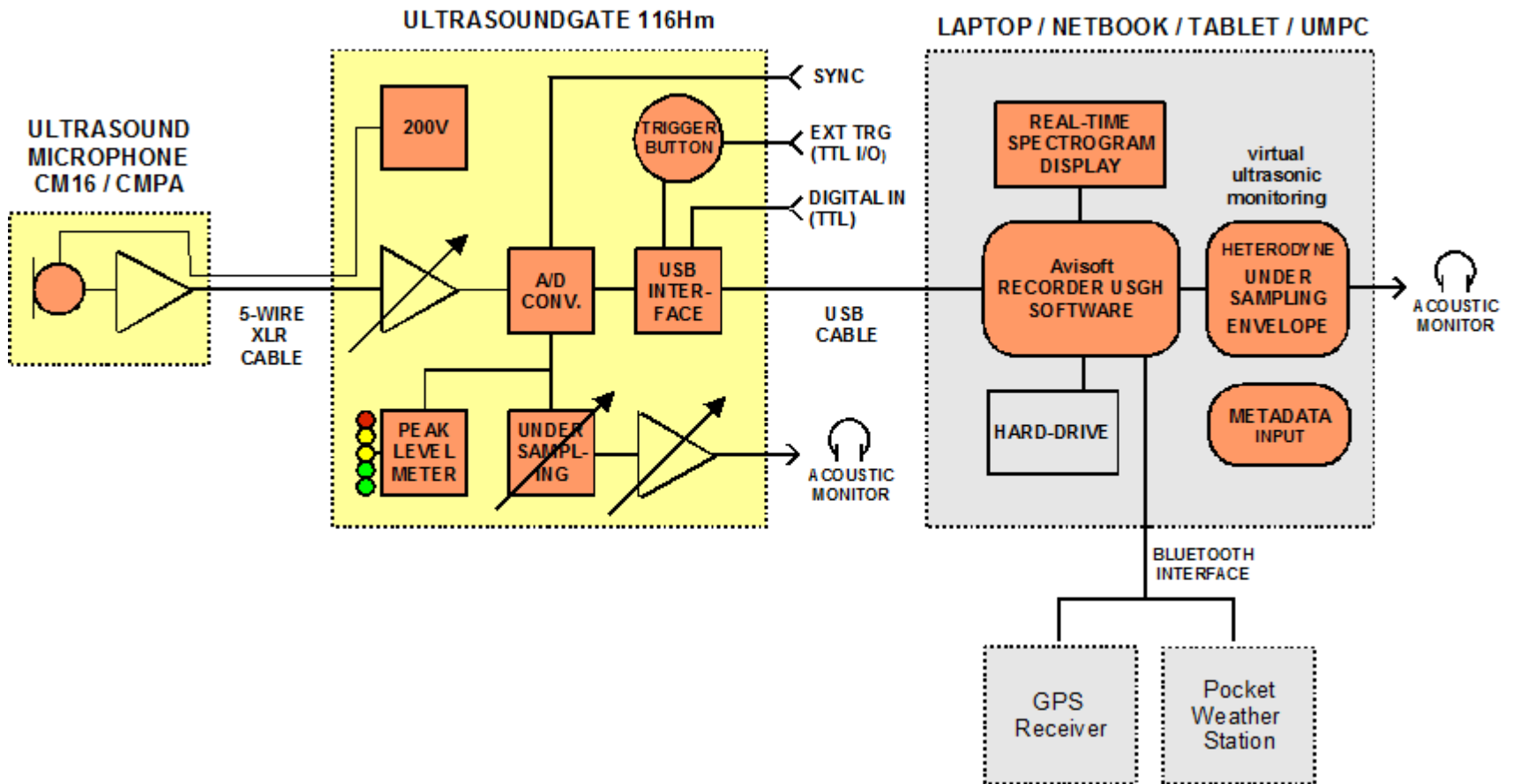


# Avisoft Bioacoustics

PC-based (full-spectrum) ultrasound recording / playback equipment and sound analysis software

Year	Milestones
1990	Sound analysis software Avisoft-SONAGRAPH (IBM PC running MS-DOS)
1993	Avisoft-SASLab Pro 1.0 (Windows 3.1)
1993	8 bit time-expansion bat detector with acoustic broad-band monitor (sold as Laar BridgeBox)
1998	Sound recording software Avisoft-RECORDER 1.0
1999	Automatic parameter measurements tool in SASLab Pro
2001	16 bit ultrasound recording hardware Avisoft-UltraSoundGate (USB interface)
2004	Condenser microphone CM16/CMPA (15...200 kHz)
2007	UltraSoundGate Player
2008	RECORDER software GPS interface
2009	UltraSoundGate Player BL Light / Pro (acoustic bat lure)
2010	User-defined XML metadatabase in RECORDER and SASLab Pro
2011	RECORDER software weather station interface





# Hand-held bat call recorders for active monitoring

- Sensitive condenser microphone 15...200 kHz
- Can be operated on small UMPC's, tablets, netbooks
- Real-time spectrogram display
- GPS functionality (via receiver built into the PC or external Bluetooth/USB GPS mouse)
- On-site metadata input (with user-defined data fields and weather data logging directly from *Kestrel Weather Tracker*® devices)
- Basic automated real-time call parameter measurements and classification
- Immediate in-depth call analysis is already possible in the field (because it is operated on a Windows PC)
- Virtually unlimited storage capacity
- Avisoft-UltraSoundGate is an open system that can be easily extended or migrated to future improved PC hardware (we expect more power-efficient models in the upcoming months/years)



# Passive monitoring

- Employs inexpensive Windows PC's that run the Avisoft-RECORDER software
- Low-cost version (\$1600) records signals up to 80 kHz
- USG 116Hnbm (\$2000) records signals up to 140 kHz
- Various microphone options (electret, condenser)
- Long extension cables (up to 500 m) between the microphone and the base station/computer (ideal for monitoring at wind turbines)
- Trigger can distinguish between bat calls and noise
- Integrated real-time call parameter measurement tool,
- Remote access (for adjusting settings, downloading log files or even .WAV files) via wireless internet connections
- Simultaneous weather data logging
- Long track record of passive bat monitoring at wind turbines since 2006



USG 116Hnbm



**We believe that the Avisoft-UltraSoundGate system is one of the best choices for field sites that have access to AC power (at wind turbines for instance).**

# Sound analysis software

## Avisoft SASLab Pro / Lite

- Quick browsing through .wav files for manual analysis procedures
- Versatile (manual or automated) measurement and classification tools
- Metadata editing tools (labels, text chunk and custom database chunks)
- The software is constantly being improved and updates are free of charge
- Avisoft SASLab Lite is free ([www.avisoft.com/downloads](http://www.avisoft.com/downloads))!

