Using the Voice Tracker™ array microphone for lecture capture

More than 350 schools and universities use the Voice Tracker™ array microphone for lecture capture. The Voice Tracker™ array microphone has proven to be so useful for lecture recording for the following reasons:

1. A single Voice Tracker™ can capture questions from the class as well as lecture from the Professor as he moves about the room. The Voice Tracker™ I has a pickup range of 30 feet and a 360° field of view.
2. The Voice Tracker™ array microphone is an extremely economic solution, especially compared to the alternative of several mics and a mixer. The Voice Tracker™ I has a list price of $259.
3. The Voice Tracker™ array microphone is extremely easy to set up. Just plug it into the wall for power and connect its audio cable to the mic in jack on the PC. Support by IT personnel is seldom required. It is truly plug-and-play; no software needs to be loaded on the PC.
4. The Voice Tracker™ array microphone does not suffer from cross talk which can occur with wireless microphones, especially in areas where several classrooms are close together.
5. Since the Voice Tracker™ is powered by wall power, you never lose a recording because of dead batteries.
6. The Voice Tracker™ is extremely reliable. Many schools leave the Voice Tracker™ on in the classroom 24/7, to simplify setup, and have had very few failures over the course of several years.

The Voice Tracker™ accomplishes this outstanding pickup range and field of view because of its proprietary scanning beamforming technology. The Voice Tracker™ I contains eight always on microphones and a digital signal processor. The processor forms a "listening beam" and automatically (and electronically) steers the beam to the active talker. This creates "spatial filtering". The Voice Tracker™ picks up from the area around the talker and ignores sound from other parts of the room. The Voice Tracker™ also has noise reduction algorithms to eliminate stationary noise from fans and air conditioners. This low noise pickup, together with the constructive combination of the output of eight microphones, gives the Voice Tracker™ an outstanding signal-to-noise ratio.

Most users mount the Voice Tracker™ on a desk or podium in the front of the room, pointing towards the rear of the room. Voice Tracker™ is more sensitive from the front than the rear and this positioning allows pickup from students sitting further away from the microphone.

The Voice Tracker™ I has a built in ceiling mount and can be positioned on the ceiling, again towards the front of the room pointing towards the rear.

For larger rooms, two Voice Trackers can be combined using a simple 3.5mm Y, or a mixer.

Most lecture capture applications are for recording only. In some distance learning applications, the class can include off site participants. If the off-site students participate in the class by asking questions through a loudspeaker in the classroom, then it is necessary to accomplish acoustic echo cancellation. Acoustic echo occurs when the far end talker's voice through a loudspeaker at the near end is picked up by an open microphone and sent back to the far end talker as an echo. If the Voice Tracker™ I is connected to a device that has acoustic echo canceler, it can be used for distance learning. If it is connected to a VoIP system that does not have a robust acoustic echo canceler, you can use the Voice Tracker™ II. The Voice Tracker™ II is a relatively new product from Acoustic Magic that has a built-in acoustic echo canceler. It can be used with products like GoToMeeting. The Voice Tracker™ II has slightly less range than the Voice Tracker™ I, and is more expensive ($360), but it enables full-duplex operation without expensive processors.

The audio output from the Voice Tracker I is analog at mic level thru a 3.5mm plug. If the Voice Tracker I is connected to a Mac, you should use our USB adapter (part 102) since the Mac soundcard needs line level.

The Voice Tracker II has both USB audio output and mic level analog output.