

# SCADATec Technical Note

## ScadaPhone – Recording and Playback

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### Purpose:

This note explains the options available for recording and playback of .wav files in ScadaPhone version 4.2.1.10 and above. It also provides some suggestions for getting the best sound quality.

### Applies To:

ScadaPhone version 4.2.1.10 and above

### Note:

We will discuss the following two options for recording and playback of .wav files. There are other options such as using other software and hardware but these will not be discussed in this note. If other methods of creating the wav files are used, keep in mind that the resulting wav files must be 16 bit monaural and recorded at 8K samples/sec.

1. Through the voice modem.
2. Through the PC sound card.

Which of the two will give the best sound quality depends on the following:

- Quality of the microphone
- Quality of the speaker(s). **Note:** The MultiTech modem requires an amplified speaker, or it may be patched into the PC sound card 'Line' input to play through the PC speakers.
- Quality of the PC sound card.
- PC soundcard setup

It is possible to make high quality recordings using the MultiTech modem and microphone that is shipped with the ScadaPhone software. It is also possible to achieve even better recording quality using the PC sound card. It is best to try both options, if available, and see which works best with any given PC. It is also possible that the best overall results will be obtained by recording via the modem on a development PC and using the PC sound card for playback on the production PC. Another option is to use a good quality stereo microphone/headphone combination. In any case, the following recording tips will be useful.

### Controls and Options:

The following controls and options are available.

1. Automatically adjust the recording volume  
Select 'Options | Auto adjust Amplitude When Recording' from the main menu.
2. Option to use the PC sound card.  
Select 'Options | Audio Devices' from the main menu and check the Checkbox.
3. Adjust the modem playback volume level  
Select 'Modem | Volume' from the main menu and adjust the Slider Control.
4. Adjust sound card record and playback volume.  
Use the volume control applet. – 'Start | Programs | Accessories | Entertainment | Volume Control'

### Recording Tips:

- Select a quiet area. Noise from the PC fan, hard disk, etc. as well as other ambient room noise will be detrimental to recording quality. During playback there should be no 'ambient' noise recorded during the pauses between spoken words.
- Use a foam cover on the microphone to minimize the hisses and pops that are common during

speech.

- Speak at a 90 degree angle to the microphone instead of directly into it.
- Speak clearly and distinctly with adequate volume.
- If using the modem for output, start by adjusting the modem volume to ¼ full volume. ('Modem/Volume')
- If recording via the modem, start by leaving the 'Options/Auto adjust Amplitude When Recording' – Checkbox unchecked.
- If using the 'system' wav files provided, try to match the recording level of the 'system' wav files as closely as possible.
- The amplitude of one or more files may be adjusted after they are recorded in the 'Edit Wav File' form. However, boosting the level of a low volume wav file will also boost any ambient background noise. It is better to record the wav files with sufficient volume to begin with.