Subject: Re: How Do You Use Speaker Workshop?
Posted by Wayne Parham on Wed, 02 Nov 2005 23:57:44 GMT
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Let's do this. We'll take things one step at a time. First, we'll check your sound card, microphone and preamp, make sure you have components that will work there. Then we'll make sure your output levels and input levels are within the dynamic range of the system, not below the noise floor or so high they're clipping. We'll make an assumption that the amps and microphones are reasonably flat, which isn't necessarily a reasonable assumption but without calibrated equipment to reference with, that's what we'll have to do for now. If you're using one of those Panasonic microphone capsules, a decent sound card and amps, you'll probably get fairly good measurements.First, what sound card do you have? Have you checked to see that Speaker Workshop thinks it's acceptable? Here's how to check.1. Start a new project or open an existing one. (File - New or File - Open)2. Check the sound card. (Options - Wizard - Check Sound Card) Does it say "You can use Speaker Workshop fully"? Click "More" on each of the input and output options to see what modes you can run. You should see several mono and stereo modes, 8 bit and 16 bit, 11kHz, 22kHz, 44kHz, etc.Other questions:3. Did you connect your sound card output to an amplifier? If so, what kind?4. What kind of microphone do you use?5. Does it connect to a microphone preamp?6. Do you have access to an oscilloscope to verify that the microphone signal is clean and undistorted? Same question for the amplifier used for MLS output, whether it can produce a reasonable amount of power without distortion and if its output impedance is low enough that it won't affect speaker Q.After you've looked at these things and we work through this, we'll set the input and output levels of your sound card, to make sure you're under +/-32767, which is the limits of the ADC for sound card input. It's important that your levels be below that so they aren't clipped, but high enough that they're well away from the noise floor.