Subject: Fun for Audio Testers
Posted by granch on Wed, 03 Oct 2007 02:55:03 GMT
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Here's a way to learn a lot about your [amplifier, spkr system, or whatever]. You need an oscilloscope (preferably with DC amplifiers), a signal generator (sine or multifunction). And an electronic switch - the kits by Heathkit and others for making a single trace scope into a dual trace scope work great for this. Probably very cheap on eBay. Connect the signal generator(SG) to one channel of the switch (ES). Set the ES to a slow switching rate. Connect the ES to the amp to be measured and the scope to the amp output. Voila! You can now look at the response of your amp to tone bursts - much more realistic signal than sine or square waves. Enjoy! To measure spkrs you have to close mike the speaker to the Scope or else you will be seeing what the speaker + room does to the signal. You can play with synching the SG to the ES and you do have to synch the scope to the ES. By playing with SC frequency and amplitude you can see how your amp overloads. Lote of fun.-Dick

Subject: Re: Fun for Audio Testers
Posted by Wayne Parham on Wed, 03 Oct 2007 13:21:59 GMT
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That's even better than Lissajou patterns! I always liked hooking up left and right channels to the scope and making a light show with Lissajou figures. Not just fun but useful too because you can see the phase relationship between channels.

Subject: Re: Fun for Audio Testers
Posted by granch on Fri, 05 Oct 2007 00:30:36 GMT
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Also that display is a good one to monitorive PA sound. Or of a system with various inputs. For example, a stereo signal with little channel separation has a distinctive pattern approaching a straight line as you get to monaural. The tilt of the line indicates balance-a 45 degree slope equals equal output levels. Left or right slopes show whether the channels are in or out of phase. I used to use this a a stage monitor because you could quickly see what had gone wrong when it did. And whether what you did to fix it worked.