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Subject: Re: Turntable Cartridge Measurements

Posted by [Wayne Parham](#) on Thu, 10 Jan 2019 18:10:16 GMT

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On Bruce Heran's advice, I have purchased and received the "Analogue Productions Ultimate Test LP." I haven't even opened it yet, because I'm going to finish my stylus microscope evaluation first. But I am getting prepared.

I already have an oscilloscope, distortion analyzer, signal generator, frequency counter and a bunch of other test equipment like tube testers and what not. As an electrical engineer, I've acquired all kinds of test goodies, and used them for many years. I also have several acoustic test systems, like LMS and WTPro. So I'm good on test equipment.

But it does occur to me that none of this stuff can be synchronized. It's all stand-alone equipment. So while I can see the waveform and its amplitude, and can also see the frequency of a sine, I cannot log them together. The way systems like LMS and WTPro do it is they generate their test signal and then listen to it. So they can know what they sent to compare it with what they get back.

In this case, the test signal will come from a record. I'll simply be watching it with a scope and frequency counter. I'd have to record the amplitudes and frequencies manually. Maybe the sweep goes slow enough that's not difficult, I don't know. Maybe I should just open up the album and follow its directions. :lol:

But I do anticipate that it might be useful to have a system that can log frequency and amplitude simultaneously. So I'm thinking about trying out a PC-based oscilloscope. I've never done that 'cause I have the "real thing." Never needed or thought I wanted a PC 'scope. But now, I'm thinking it might be useful for this, so I can log frequency and amplitude, and perhaps export that to something to make a frequency response chart.

Towards that aim, I'm looking at software called Daqarta. I'll let you know as I make progress.

I'm also thinking about the RIAA curve in the phono stage. I'll be measuring a system, not just the cartridge. Significant aspects of the signal path include the cartridge stylus (mass/spring), its motors (coil/magnet), the cartridge load impedance (L/C/R) and the RIAA filter function within the phono stage. So these measurements won't totally isolate the cartridge.