

LXI Applications: Making a Difference

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I was talking with some engineers the other day about LXI applications. It seems that hardly a day goes by without hearing about another application using LXI where designers apply the power of Ethernet when building new test systems. Seeing and hearing about these new test systems reinforce that LXI is real, it's available, and it's making a difference.



We have long talked about the profound changes Ethernet made to our work and personal lives. Remember when file sharing meant the sneaker net and floppy disks? How about printing by connecting parallel cables directly to the computer? Today, I can transfer a file or have a printed document on a colleague's desk in Europe or Asia nearly instantaneously.

Last week, I was helping my son with his school project and thinking about the long hours at the library similar projects required in the past. The reality is that Ethernet has changed our work lives immeasurably.

I see the same thing happening with test systems. Many of the applications are simply the replacement of GPIB with LAN cables. It is easy and straightforward.

Regular readers of *LXI ConneXion* will recognize the airframe static test system described by VXI Technology. In that application, LXI helped coordinate tens of thousands of strain gage inputs.

In the last issue, Elgar described a satellite thermo-vac test system that muxed hundreds of power supplies. Instrument control was simple and straightforward using LXI. In another application, the integrator used LXI Web pages to monitor serial numbers and firmware revisions for compliance reporting.

We have seen applications extend distances well beyond what was practical just a few years ago. For example, LXI is found in test ranges that span great distances. And several applications use LXI as the backbone for cable TV monitoring systems scattered across the country where a single engineer monitors network performance from a remote location.

We have only scratched the surface. I am personally aware of applications under development that use peer-to-peer and multicast communications between instruments, independent of a central controller. Combined with scripts and IEEE 1588 timing, these LXI features bring powerful new tools to system integrators and designers. For example, timestamps can simplify system development, troubleshooting, and upgrades.

The list of LXI applications continues to grow. If you have an application to share or you would like to consult with some LXI experts, I would like to hear from you. Contact me at bob_rennard@agilent.com.