THE USITT STAGE EXPO, which ran from March 21 – 23 at the Kentucky International Convention Center in Louisville, was a record-setting show. My spreadsheet of exhibitors listed 331 companies, but USITT’s wrap-up press release says there were 340—in either case, dozens more than last year. The press release attendance figure is over 6,000, which is about 10% more than the previous high two years ago. This is a lot of people, but it was a good number for the convention center and downtown Louisville. The city center had enough restaurants, bars, coffee shops, and seats in the three performance spaces of the Actors Theatre of Louisville that the people wearing USITT conference badges did not overwhelm them. Furthermore, Louisville’s city center now is a far more inviting, more prosperous place than it was when the USITT Conference and Stage Expo was last there in 2006.

I followed my usual method of wandering the Stage Expo floor taking note of whatever caught my eye, but this time I took note of what ESTA members did to catch the attention of people at the show. This perspective was influenced by the “Urban Bourbon Trail Passport” handed out at the Louisville Visitor’s Center. About 31% of the world’s supply of bourbon is produced within the Louisville city limits. To promote bourbon and Louisville, the Passport invites people to visit a selection of 34 bars and restaurants to collect Passport stamps. Collect six stamps and get a T-shirt! Exhibitors at USITT have been giving away T-shirts for years, but what else can bring people into your booth so you can show them what you have to offer?

I had a conversation with Steve Surratt at Texas Scenic Company about the minimal amount of stuff needed to bring in prospective customers. Texas Scenic simply had two comfortable love-seats, a coffee table with a bowl of candy, and a flat-screen display of moderate size showing some of their rigging and soft-goods projects. It was enough to get me to stop and talk about Texas
Scenic’s offerings for the USITT crowd—and for the NAMM crowd, too. People with small bands aren’t likely to need dozens of linesets, but they could use some of Texas Scenic’s easily transported acoustic banners. They look good and are orders of magnitude safer than Station nightclub foam.

An even more minimal booth was provided by Area Four Industries. They had some pop-up panels and a table topped with 4” x 6” clear plastic envelopes holding logo-stickers for Area Four Industries and its brands: James Thomas Engineering, Litec, Milos, Mobiltechlifts, and EXE Technology. I looked at the stickers, but they were simply part of a passport game put together by InterAmerica Stage with a dozen companies total, including ESTA members Associated Controls + Design, Barbizon, BellaTEX, Candela Controls, H&H Specialties, Vincent Lighting Systems, and Total Structures. Stage Expo visitors were to go around to the twelve companies, introduce themselves, and spend a few minutes talking with booth staff to get their passport stamped. When they got all 12 stamps, they turned the passports in at the InterAmerica Stage booth and were entered in drawings for prizes that each of the companies provided.

Total Structures was part of the passport game, but what got me to stop were the various truss connectors—bolt plates, forks, and spigots—on a table in the booth. It was an interesting mix of stuff normally only seen attached to truss chords, representing big and small trusses, European and North American product lines. Charlie Weiner explained the display was to give visitors a bit of an education about the different ways truss pieces can be hooked together. Of course, if he showed someone a spigotted connector as thick as a man’s forearm, he made the point that Total Structures’ product line includes massive trusses, without the cost of having to haul one onto the show floor. Total Structures’ contributions to the passport game prizes were a Keurig Mini Plus with coffee, Bulletproof Brain Octane Oil, a tub of ghee, and more!

XSF was not part of the passport game, but Total Structures’ parts demo gave me a new perspective on what they did have to offer. XSF’s draw for attendees was branded hammocks; by the time I got to the booth, only a few were left hanging from XSF’s truss structure. The products they were showing were not new, but still significant. Prominently displayed was an adjustable wedge, an angle block that can be set for 15°, 30°, 45°, or 60° by using clevis bars of different lengths. Also promoted was the Protective Bolt Plate Truss, a square truss with a thick aluminum plate covering the ends of the chords to protect them from dents and abrasions. It’s designed to mate with conventional truss bolt plates, such as those shown in the Total Structures booth, but it’s one piece of aluminum rather than two at the end of each truss. One piece takes less work to attach than
two, and labor is a major cost in a piece of truss.

Associated Controls + Design was part of the passport game, but what stopped me at their booth was a big video screen showing Tetris running on a vintage Nintendo game console. This wasn’t a nostalgia fest. The game console was controlled by a Pathway Connectivity Cognito desk, via a LumenRadio link, a Pathway Connectivity DMX512 to contact-closure interface, and a custom circuit on a solderless breadboard, which fed a digital signal to the game console. It was proof that Associated Controls + Design can make systems of disparate devices work.

Pathway Connectivity, the manufacturer of two of the Tetris rig devices, showed a cloud-based remote management system it is developing with SixEye. Using a browser, Robert Bell was able to trigger events—a cowbell sound and “more cowbell”—in the Pathway booth, and control devices in his own home, approximately 80 kilometers northwest of Toronto, via a remote server. It works over any Internet connection using Transport Layer Security; no VPN is required. It’s clearly useful for large installations such as theme parks and shopping centers, but it can be used for remote support of any sized installation. That helps narrow any later problems down to faulty installation—and Bill can go on at length about the unhelpful ways electricians can install DMX512 wiring. Twisted pairs are important, as is polarity.

ETC needs no eye-draw to lure people; its booths are always jammed. This time a popular product was “Augment3d” a programming environment that will be part of Eos v3.0 software later this year. It’s previsualization software that lets you build a good-looking model of your rig and setting very quickly—or you can import 3D files in 3DS, DXF, OBJ, and FBX format. It’s claimed “to allow Eos users to program from a new perspective” and “perspective” is what I found most compelling about it. You can look at the scene from any seat in the house, or from the point of view of any luminaire, and it will do this in live or blind mode. I suppose any visualizer will show you if a border blocks an instrument’s beam, but I liked being able to see from the luminaire’s viewpoint what’s in the way.

Augment3d is a programming tool, too. Indicate what you want
to light with what luminaire, and it will work out the pan and tilt values to do it. This feature is helped by Focus Wand, a new component of the iRFR/aRFR app. It allows you to select luminaires through your iOS or Android mobile device’s camera, then you can use finger gestures for intensity control and zoom. You also can use it to set preset focuses on automated luminaires, or use the Find Me function and the light will focus on the mobile device and follow it around if you move it. The Find Me demonstration reminded me of the Wybron AutoPilot, which worked only after a long setup process. Focus Wand makes the setup process disappear. Arthur C. Clarke’s Third Law came to mind: “Any sufficiently advanced technology is indistinguishable from magic.”

Augment3d will support conventional luminaires, “but to a lesser degree than automated fixtures,” says the ETC FAQ. ETC is expanding its catalog of “automated fixtures” (which are portable, so they are not “fixtures”) with the Relevé Spot Luminaire, a moving head with a red-green-indigo-lime LED engine that delivers 6,000 lumens to the stage. It’s designed as a theatre luminaire, rather than an effects machine, in that it offers five rotating/indexing gobos you can change; an effects wheel with a range of patterns on it, so it can work like another gobo wheel besides giving shimmering break-ups; an 18° to 54° zoom range; variable frost; motionless homing; and extremely quiet operation. There’s no rotating prism, no laser-thin beam effects; this is a luminaire for lighting people and scenery. The color rendering is 81 R₇ and 116 R₂ per IES TM-30-18 when set for a 3,000 K CCT, and slightly lower at higher color temperatures.

There were several followspots shown at the Stage Expo—manually operated moving lights—and they always catch my attention because they are wonderfully tactile. The shortest was the Lycian ZOT Junior, about three hand-spans long in prototype. It uses a 140 W white LED source now, but Richard Logothetis said that he was working on increasing the power to increase the output—although it looked useful to me as is. The principal limitation on driving an LED source is keeping it cool; there is plenty of room in the ZOT Junior housing right now for a larger heat exchanger. Richard plans to increase the heat exchanger size, but also reduce the luminaire’s length to about 18”. This will be a low-cost unit, and it will be small enough to be kept in a closet until needed.

A more powerful followspot, shown in the Ushio booth, was the SAI-500, running with a 400 W COB white LED. This was a prototype: the DMX512 control wasn’t working yet and the dimmer handle on top—like a conventional douser—wasn’t calibrated properly. The dimming was very smooth, but the dimming was only over half the handle’s movement range. I heard promises about fixing that, and it should be fixed, but I don’t think it would be a
Strong Lighting had two new white LED spotlights, both using the same 600 W white LED engine. The iChip Mirage ST is the short-throw version, at full spot providing 2,120 lux at 15 m, lighting a circle 3 m in diameter. The iChip Mirage LT is the long-throw version, at full spot providing 6,996 lux at 15 m, lighting a circle 1.1 m in diameter. Both draw little enough power that two can be run from a single 15 A duplex outlet. The dimmer is mechanical; two blades in soft-focus cut the beam from the top and bottom. A switch cuts power to the LED engine when the dimming shutters are fully closed.

Robe booth staff used a RoboSpot to draw people to its booth. The RoboSpot was the remote controller for a BMFL above the booth fitted with a camera. A human operator at the BaseStation can see what the camera sees looking down the beam on a video screen, and the operator steers the luminaire and beam with two handles. These are positioned like wheel barrow handles rather than the front and rear handles on a long beam as seen on other remote followspot products. However, Robe booth visitors were quickly steered to the T1 Profile, a moving head with a five-color LED engine: red, green, blue, lime, and amber. It’s a theatre and television unit with extremely quiet operation, pulse-rate control to avoid camera flicker, framing shutters as well as a gobo wheel and effects wheel, zoom from 7° to 49°, and calibrated color temperature settings from 2,700 K to 8,000 K. There is a “halogen lamp mode” that adds thermal lag and red-shift to emulate the dimming of a range of incandescent lamps from 750 W to 2.5 kW. Color consistency is assured with the Robe Colour Calibration system that can recalibrate the emitters automatically or on-call to assure consistent color. Maximum output is 8,690 lumens at full spot and 10,870 lumens at full flood.

And with this I have filled my page allotment, even though product literature and notes for dozens more ESTA members’ showings are on my desk. If I did not mention something here, it is not because it wasn’t good or interesting; it’s simply because I couldn’t figure out how to stitch it into a narrative.

Next year’s USITT Conference and Stage Expo will be held April 1 – 4 in Houston, TX, at the George R. Brown Convention Center—the same venue used in 2008, although I am sure we will find it different a dozen years later. Houston lacks the draw of a signature beverage, but Houston, as the most populous city in Texas and fourth most populous city in the United States, is a bustling place. The downtown theatre district is home to nine major performing arts organizations, and that means lots going on—but a lack of things to do is never a problem at a USITT Conference and Stage Expo! More information will be posted in the coming months at https://www.usittshow.com/. Check it out!