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Level Up With LearningStage







ETC's LearningStage is your go-to platform for on-demand training. Whether you're just starting out or sharpening your expertise, there's something here for you. Learn at your own pace with courses on:

- Lighting and networking essentials
- Rigging tools and techniques
- Architectural control systems
- Consoles such as Eos and Hog
- More added regularly





Vision, Dedication, and Service



Throughout my years at ETC, I have recognized that there have been a few things that are more important than others. One is that the people of ETC are the lifeblood of the company. Not only do they help create and sustain the culture, but our goals and objectives are accomplished by our employee talent. It is important that we treat our employees with the respect they deserve and consider their ongoing development as we conquer the opportunities and obstacles in our future.

Fred and I always thought one of the most important jobs we had was supporting our employees. Other companies say they value their employees, but what does that mean when the going gets tough? We are totally dedicated to helping our employees succeed, because when our employees succeed, we progress as a company. When the employees have life events that impact them, they know we have their back.

Fred and I combined his "the show must go on" vision with my dedication of service to our country, to create an organizational environment that values innovative employee action and total customer service. Part of my contribution has been to provide solid structure and the vision around that structure so that it was clear what we all needed to do in order to succeed—both as individuals and as a company.

It's why we do things like take the entire company to go see a matinee performance of *The Lion King*. Our products are an integral part in creating the magic of that show and we wanted to give all our co-workers the chance to see the fruits of their labor. I wanted them to be able to see the successes that they made possible just as we are celebrating the success that ETC has become thanks to their work.

No matter if we are rigging a Broadway stage, lighting a live event at the ETC Community Stage in Middleton, illuminating a high school classroom, controlling lights in an arena, or growing plants indoors, ETC is absolutely everywhere.

You'll read in these pages about just how much the identity of ETC is bound up with the idea of being of service to our customers. This was no accident. We have built the structure of ETC to give them the best product possible and the best support once they have it.

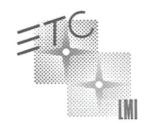
This magazine—and all of our 50th anniversary celebrations—are meant to celebrate and commemorate what we've done in the past while providing a light for the next 50 years. We are building our future now, with a dedication to quality and service, and a commitment to always doing our best.

Dick Titus, ETC President/CEO

Building a foundation



Where it all began... in 1975 brothers Fred and Bill Foster, plus their friends James Bradley and Gary Bewick, begin work on a prototype lighting console called Mega Cue. ETC acquires Lighting
Methods, Inc., a Rochester,
New York-based manufacturer
of entertainment dimming
systems. ETC is now one of
the largest fully integrated
entertainment lighting
control manufacturers in
North America.



A period of rapid growth begins as ETC expands into Asia and Europe through the acquisition of the Arri Lighting division in the UK.



1995

The first ETC-branded console, Concept, is launched. A variation of this desk is eventually chosen by Disney to control its parade lighting.



A legacy is born when ETC introduces the iconic Source Four ellipsoidal spotlight – over 3 million have since been sold.

1992 also saw the introduction of the Obsession console and Sensor dimming, solidifying ETC as full system provider.

ETC branches out from its theatrical roots and offers the first products for the architectural market.



- - for the future - - - - - - -

ETC acquires Irideon from Vari*Lite.





Continuing the European expansion, ETC acquires the German lighting company, Transtechnik Lichtsysteme, based out of Holzkirchen.

2002

By this time, the offices back home in the US are getting a little crowded. In 2004 ETC Inc. moves into a new 250,000 square-foot building. This is where the current international headquarters is today.

Back to Europe! Also in 2004, ETC acquires respected Dutch sine wave dimming manufacturer IES and its industrial weighing and measuring division, PENKO Engineering BV.



2004

The Fred Foster Student Mentorship program accepts its first applicants.

ETC opens an office in Rome.



avab by ETC

In 2003 ETC partners with Avab Transtechnik France (ATF) to enter the French market. Only three years later, ETC headquarters is out of space again and adds 78,000 square feet of factory space.

ETC CEO and founder Fred Foster wins a Wally Russell Lifetime Achievement Award.

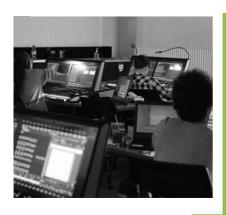




ETC hosts the first CUE end-user workshop in downtown Madison, Wisconsin.



ETC enters the LED lighting market with the acquisition of Selador®.



ETC purchases Vortek rigging division of New York-based Daktronics and begins to offer rigging solutions internationally.

ETC makes the In Business magazine list of Best Companies to Work For.



2014

ETC introduces the first glimpse of the ETC Rigging family.



2009



Still looking for more manufacturing space, ETC purchases a new 355,770 square-foot facility in Mazomanie, Wisconsin. E e b

ETC becomes one-third employee owned when the board members create an employee stock ownership plan (ESOP).

Christmas Eve marks ETC's 40th anniversary.





ETC launches into the live events market as they acquire High End Systems and inherit LED automated lighting and Hog 4 consoles.

ETC opens a new training and product demo studio in Dubai.

ETC enters the horticulture market with RAYN fixtures for indoor farming and research facilities.



In December, ETC becomes a 100% employee-owned company.





In January, ETC acquires Echoflex Solutions, a manufacturer of wireless control products for commercial lighting.

ETC France opens in Paris in November, bringing the corporate office count to 15!

The northern expansion of the Middleton HQ is completed, adding 74,500 square feet of space for R&D and marketing.

fos/4 fixtures give ETC a competitive edge in the studio/film market with deep red LED technology.



CELEBRATING YEARS

ETC celebrates its 50th anniversary.

THE EARLY DECADES OF ETC



Each decade has held something new, exciting, and often a little unexpected for ETC. A company that defied all odds tip-toed onto the scene on Christmas Eve, 1975

Here's how Fred described the start in his keynote presentation at ETC's end-user conference, CUE, in 2015.

"The story of ETC starts when I was 18 and my brother Bill was 19. I was studying to be a lighting designer in Madison at the University of Wisconsin. At 18 I was astoundingly arrogant and thought that I was going to be the world's greatest lighting designer. I got to the UW where there was a really good lighting professor and really good lighting program, and I quickly learned that there were people that were much better artists than I was ever going to be... so I kind of fell into the technology side."





Fred, his brother, and two friends innovated and engineered a lighting console that they presented to their lighting professor, Gilbert Helmsley, one year later, on Christmas Eve in 1976. This console would later be known as Mega Cue and is recorded as the first product ETC ever made.

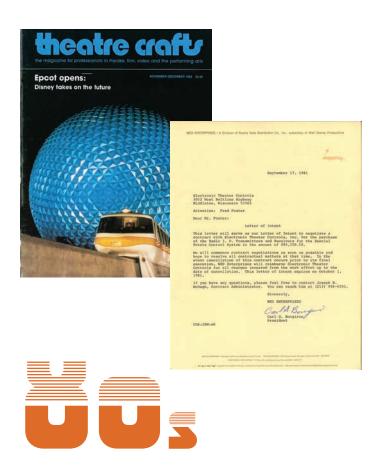
"While crude by current standards, Mega Cue pioneered many ideas that are standard features in lighting consoles today. The major innovations included the use of an 8-bit microprocessor as well as the serial digital data link from the console to the dimmer interface unit that anticipated DMX by several years. Functionally, Mega Cue also introduced the concept of 'write by memory' that allowed a proportional group of channel levels to be controlled by the wheel. This eventually became what we now call groups."

Fast forward though three years of development and we arrive at 1979 when ETC was commissioned to design a parade control system for Disneyland. This project went well enough that ETC was asked to design and build a lighting console for Disney's Epcot Center in Orlando, FL.





In 1979, Colortran got a contract from Disney for a new computer system which would automatically follow the parade. Colortran contracted with ETC to design a version of the Channel Track console that would track the parade as it moved through Disneyland. This Parade Controller was called Mickey Track. Disney wanted a huge bubble of light and sound around each parade float and have it track down through the park. ETC made sure they got what they wanted.



ETC Becomes Visible to the World

ETC had been producing their console technology under the notable Colortran brand. But when EPCOT requested a new console, Colortran didn't show any interest in the technology ETC developed. ETC seized the opportunity to go out on their own and develop their own market share.

The SPECIAL EVENTS CONTROL SYSTEM (SECS) will control entertainment equipment through EPCOT and World Showcase. It has been conceived to be as flexible as possible to allow for expansion and unforeseen functional needs which will develop in the future of the park. Great care has been given to design a system that will perform with the utmost reliability. -Excerpt from the Original Design Plan, January, 1981

In 1982 ETC officially launched the Concept console to the public; a variation of the desk that had been designed to run Disney's parade lighting.





ETC Enters a Period of Growth

Perhaps what keeps any company alive is the ability of its leadership to see past the current needs of the market and successfully predict what comes next. For ETC, it was the expansion of its product portfolio. And what better to complement lighting control than dimming.

In 1990, ETC acquired Rochester, New York-based Lighting Methods, Inc., a company that ETC had partnered with in the past. With lighting control and dimming, ETC was poised to be a fully-integrated lighting control manufacturer. With the addition of ellipsoidals a few years later, ETC was fully on the scene!

By the mid-90s, ETC was at a comfortable place in the industry. They had multiple offices in the US, the Source Four ellipsoidal had taken the industry by storm in 1992, and they were manufacturing a portfolio of successful products. Why would any successful company make the conscious decision to change?

Because the alternative was untenable to Fred; he often told a story about the necessity of corporate growth. Paraphrasing a bit, the story states that in order to be successful, you must hire the best people—something Fred believed with his entire heart. But without growth, keeping those people will be nearly impossible. Without new opportunities and challenges, your best people will start looking to advance their careers somewhere else.

Fred knew he could not lose his employees, so ETC expanded again; this time, into the international market.

ETC Asia opened in Hong Kong in 1995 along with our office in London, England. ETC acquired the Irideon line of automated lighting from Vari*Lite in 1998. And the Rome office opened in 1999 to better serve the southern European markets. The '90s were a time of tremendous growth for ETC, setting the stage for decades to come.

The first three decades of innovation and growth set ETC on a course for success that could not have been predicted. Looking back, three driving principles seem to emerge over and over again: Hire the best people, continue to push technology, and always ask if there could be a better way.



FACTOR

red Foster attended James Madison High School on the West side of Madison, WI, in the early 1970s. Freshman year, he walked into his homeroom, which serendipitously, turned out to be the auditorium. He looked up, saw the spotlights, and thought, wow, that's kind of cool. "I basically didn't go to any other classes in high school," Foster laughed. So began his dedicated interest in theatrical lighting. An interest that grew into a passion, and a passion that—with a lot of determination and luck—has grown into a 50-year-old company with over 1400 employees and 15 offices around the world.

In the fall of 1975, Foster began his collegiate career at the University of Wisconsin-Madison as part of an impressively strong lighting program that included approximately 162 first-semester lighting students and 15 graduate students.

"At 18, I was astoundingly arrogant and thought I was going to be the greatest lighting designer - I was certain of it," said Foster. "But I quickly learned that there were people who were much better artists than I was ever going to be, so I kind of fell into

the technology side." During his time at the University, Foster was given the opportunity to work in New York City with his lighting professor—a trip that included two weeks at the Met where he fell in love with opera houses. The experience inspired Foster to declare that someday he would sell a lighting console to the Met. Which, like most things Foster set his mind to, he eventually did in 1996.

"Every time we faced a new challenge, we found a way to overcome it, with change as our guiding star." -Fred Foster

When you hear the origin story of ETC, you'll quickly notice that hard work and determination were met with an even greater amount of landing in the right place at the right time. If Fred had not been at the university in 1975, he likely would not have met the industry influencers who first gave him a chance. If his dream of inventing a lighting console had not lined up with the innovation of microprocessor technology, ETC may never have gotten off the ground. If he hadn't had the support of his parents answering business calls while he was out sailing, and letting him turn his brother's bedroom into a manufacturing

facility, ETC may never have seen its first anniversary. Listening to the stories of ETC's early years, it is amazing that ETC succeeded at all.

"The number of near-death experiences for this company was not small." Laughs Fred's brother, Bill.

But story after story proves that Fred, along with his brother Bill, and their two friends Gary and Jimmy, against all odds, was determined to make his mark on the industry.

As Fred would later recall, "We were four kids who didn't know that we

couldn't do it. We had no resources and no money. We didn't even have a garage. To buy an 8-inch floppy disc drive, we each had to pony up \$300. For years, our initial capitalization was listed at \$1,200. Every time we faced a new challenge, we found a way to overcome it, with change as our guiding star."

While ETC may have been born at the intersection of luck and dreams, anyone who ever met Fred knows that it was built





Fred Foster sailing in the early 1980s.



ETC employees take Bobblehead Fred on adventures around the world.



Alan Adelman and Susan Latton operating the first ETC lighting console at the UW Memorial Union Theatre, 1977.

on a lot of hard work, strong relationships, and determination something many at ETC affectionately call, "The Fred Factor." Fred's goal with every product was to give the customers what they wanted before they knew they needed it. If it was possible for ETC to improve their artistic vision, Fred was determined to find a way.

When Disney needed a custom solution to control the lighting on its parade routes, Fred found a way. When Broadway lighting designers asked for warmer LEDs that mimicked tungsten, Fred found a way. ETC has been built on a culture of not having the answers, but a willingness to find them. And Fred always knew he couldn't do it all alone.

He was interested in the business of lighting, but he was also passionate about hiring and retaining the best people. He understood that while finding people might be easy, in order to keep them, they have to feel valued. Luckily for everyone who ever knew Fred, he genuinely valued what each person had to offer. His warm attitude was infectious. His drive and motivation to solve problems that no one else had solved was contagious.

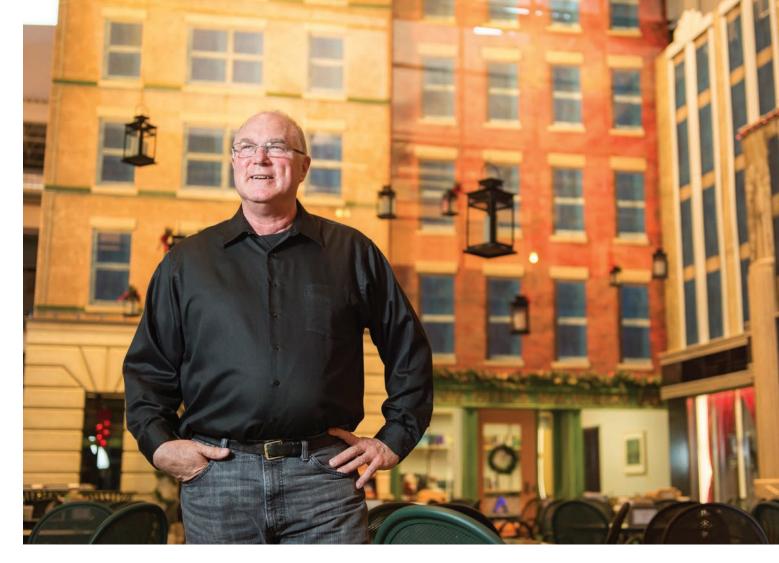
In 1995, ETC employed 238 people in Wisconsin, and Fred did his best to know every single one of them. To help tackle the problem of not being able to put a name with a face, ETC's inhouse photographer created a deck of employee image cards, including the latest recruits, so that Fred's daughter, Kate, who was nine at the time, could give Fred flashcard tests at home.

When a new position was created at ETC, Fred asked that it be advertised internally for a week or two before going public to give existing employees an opportunity to apply for something new, opening up opportunities for advancement within the company. This is still the case today and gives ETC managers the opportunity to discover talents internally that might not have otherwise been known.

Fred's business motto was always, People First—customers and employees. His appreciation for employees' ideas and talents eventually led to a profit-sharing plan. In 2015, the company became one-third employee owned, and in December of 2023, the program was expanded, making the company 100% employee owned.

When building the current ETC headquarters, Foster recognized that the company needed a central gathering place to promote the unique corporate culture and encourage camaraderie. This vision turned into one of his greatest architectural achievements, ETC's Town Square.

After Town Square was completed, Foster assembled teams of people to help design and create themed spaces within other offices as well. He designed and built countless tradeshow booths and spent hours creating intricate CAD drawings, driving his CNC router to create bricks, moldings, and other intricate surfaces that adorn ETC spaces around the globe. He was always adding extra details using the mantra "because we can." It's the things that, to some, may seem frivolous that make the biggest difference. Fred knew that having fun was just as important as making money. When the fun disappears, so does the love of the work. These creative, collaborative



projects were unexpected moments of fun that made many employees excited to come to work each day.

Foster did not follow the trends but instead followed his gut, and he never took himself too seriously. This became apparent when several ETC employees and his wife Susan had Bobblehead Fred dolls made and distributed to all employees for Fred's 50th birthday. "Creative disrespect," Fred said with a smile.

Never losing sight of how far he was able to go in the industry because of his early mentors, Foster created a program to mentor future generations of lighting designers. The program, now known as the Fred Foster Mentorship Program, matches lighting designers and other industry professionals with graduate students in the same field of study. These mentor/mentee relationships have birthed numerous impressive careers over the years.

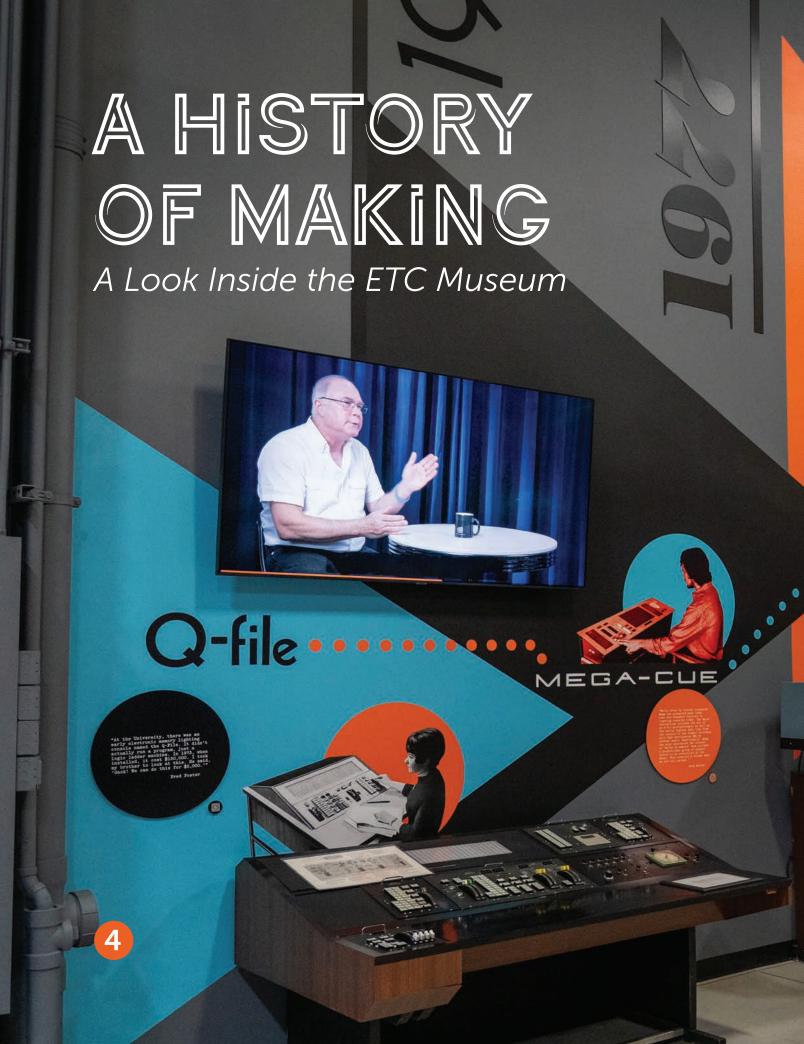
Fred's desire to always do the right thing led to the creation of ETC's philanthropy programs which continue to support community-based and performance-based non-profits. Foster's generosity has been proven through countless donations to disaster relief and humanitarian funds both on the local and global level, always through the name of the ETC Corporation.

Foster often overlooked the enormous impact he had in building ETC, a company that is woven through numerous

industry channels. His greatest talent was his ability to bring people together and rally them around a goal or vision. Whether it was a new product technology, a tradeshow booth design, or an employee meeting space, he was always creating, always making, and always giving.

The fact that ETC has developed the breadth of a portfolio that it has over the last 50 years is quite amazing and, among those who have been around since the early years, a little unbelievable. But it should come as no surprise that Fred remained vigilant of the small technology booths in the shadowed corners of every tradeshow floor. He knew these were the booths staffed by arrogant 20-year-olds who might develop the technology that could knock ETC out of the market. Arguably, this same awareness is what has kept ETC relevant and driving forward for 50 years.

It's written into ETC's mission statement, "Listen to our customers and give them more than they expect." Ultimately, this is the heart of the Fred Factor. Live and work for other people. Treat everyone with kindness and respect. Work hard and ask the tough questions to solve the tough problems. The Fred Factor is the desire to collaborate, iterate, and innovate together. And above all, it is the knowledge that life is short, and we cannot forget to celebrate our wins, celebrate our friendships, and have some fun along the way.









Fast forward to today, and ETC has now collected hundreds of historical lighting and rigging pieces, many of which are prominently on display in the Middleton and Mazomanie offices—highlighting the technology of days gone by.

One of the first concerted efforts to put ETC's collection on display is the ellipsoidal hallway that now lives in ETC's Middleton headquarters building. (1) From the LEKO to Source Four LED, the hallway displays a timeline of spotlight history from the 1930s to now. Many of the pieces came from Professor Doug Taylor of University of Missouri-Kansas City, originally collected and preserved for a project begun by USITT. When the collection was offered up to ETC Founder Fred Foster, he jumped at the opportunity to add to our own relics of the lighting industry's past.

Curating a museum of historical theatre equipment comes with its hiccups (and even dangers). An ellipsoidal spotlight from 1964, manufactured by Hub Electric, noted in its catalogue that these instruments are equipped with asbestos leads. This is the case for many luminaires of this era. To safely display them, ETC had the asbestos leads removed, replacing them with cotton rope to maintain the original look. (2)

Of course, the introduction of the Source Four shaped the trajectory of where ETC is today. In 1992, Source Four revolutionized what was possible in an ellipsoidal reflector spotlight, significantly increasing luminous output while requiring less power. This section of the

ellipsoidal hallway commemorates the design process that led to this iconic innovation. (3)

Most recently, ETC installed a new console museum just around the corner from the deli in the headquarters building. (4) This installation includes several of the very first consoles designed and manufactured by ETC. TV displays share a first-hand account from the people who started it all, with video interviews running on an infinite loop.

Beginning in 1975, the Q-file was the desk that sparked the birth of ETC. **(5)** It was a revolutionary lighting control system that cost the University of Wisconsin-Madison a whopping



\$150,000. The astronomical price inspired brothers Fred and Bill Foster to build their own cost-effective Q-file. That Christmas Eve, Fred and Bill along with their college friends, Jimmy Bradley and Gary Bewick were at a Christmas party together. This is where they announced that they were going to build their own Q-file. ETC's very first production facility was in Bill's bedroom where the four used cheap spare parts to put together their first version of a Q-file, a console which they later named the Mega Cue.

The Channel Track consoles were Colortran products, but they were also an important part of early ETC history. **(6)** The desks were direct descendants of ETC's first console, the Mega Cue. Beginning in 1978, the two companies partnered to create the Channel Track system and sold over 150 of the desks over the course of four years. The model exhibited here is a Channel Track 2 (serial number 14), which boasted 400 control channels and supported two monitors. It ran on a 2.5 Mhz Z-80A processor and used only 48K of DRAM. This unit was installed in the showroom at the MGM Grand in Las Vegas. It remained in use there for over a decade, even surviving a fire in 1980. Around 1992, the console was retired and sent back to ETC, where it has lived ever since. When the console arrived, it still had the disk from Liberace's show in one of its two 8-inch floppy drives.

After a number of years partnering with Berkey Colortran to produce the Channel Track desks, the ELC was the first console sold by ETC under its own name in 1982. The ELC would eventually evolve into Concept, the first ETC-brand board marketed to the broader lighting industry. This desk gave rise to the Concept / Idea / Vision / MicroVision / Expression line of consoles. (7) By the time the Concept 250 came out in 1983, the flat, plastic-covered buttons were discarded in favor of the square keys with indicator lights that will be familiar to anyone who's used an Express console.

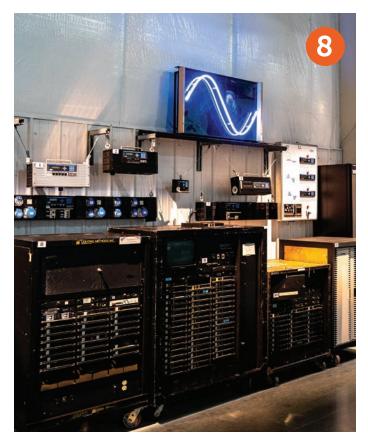
Just 17 miles away from the headquarters building, ETC's Mazomanie facility also has a prominent display of lighting industry artifacts. (8) These pieces are organized into bays, requiring a numbering system to keep track of what's what. Any seasoned industry professional who takes a gander through this area will feel the itch of familiarity among the many levers, lenses, buttons, and switches that once were commonplace.

One of the most sizable museum entries is a Kliegl Bros. patch panel. (9) Our notes indicate that this patch panel dates from around 1972, and that it was installed in Thomas Jefferson Middle School in Arlington, VA. It remained in use until 2006. In the days before theatres had a lot of dimmers, the number of lighting positions/circuits frequently exceeded the number of available dimmers. Patch panels provided a workaround, and a convenient interface for selecting which lights would be controlled by which dimmer. If you ever harbored any fantasies of being a mid-century telephone switchboard operator, this was the piece of backstage equipment for you.

Sometimes, preserving history goes beyond simply saving the gear. For example, on an L86-9600 Tour Rack from Lighting Methods, Inc. (LMI), you'll find a note stashed away from Fred





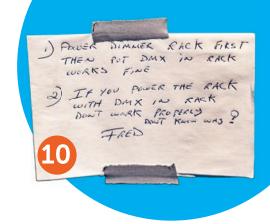






Foster, noting that the operation of this particular rack is a bit of a head scratcher. (10) ETC acquired LMI in 1990, from which a team of experts joined ETC, helping create future generations of dimming and power-control solutions. To this day, ETC still provides support for LMI products.

One highly tactile entry in the museum is this piano board. (11) Executing a cue with this board required great skill and coordination. Piano board operators would directly manipulate the levers to predetermined levels for each cue, counting out the fade times. To fade multiple dimmers at once, the operator would engage each dimmer to the master by turning the handle, start the fade using the master lever, and then unlock each individual dimmer handle as it reached its target level. This board from Doug Taylor came with accompanying notes indicating that it was last used as a stage prop for a production of The Dresser. It is unclear whether the "Hands Off" message scrawled on the face plate was the work of the props master or a general admonishment from the board's days in active service. The black paint on the metal served a very practical purpose. Because the electrical elements were not grounded, the entire metal box would be electrified to some extent by the inductive current. The layers of



black paint—typically re-applied between every rental-helped to protect the operators from accidental shocks.

Another behemoth from ETC's collection is a Skirpan Autocue Astral Stage Lighting Control System from 1977. (12) This Skirpan Autocue system also came to ETC from the collection of Doug Taylor. It was donated to him by Stephen J. Skirpan, along with the historical archives of the Skirpan Lighting Control Corporation. In a letter to Taylor dated June 25th, 1991, Skirpan provided the following description of the system: "This particular Autocue system controlled all stage lighting for NBC - Studio 4 in Burbank, California for about ten years. It has been refinished and is completely operable. During its use at NBC, this system lit thousands of shows. In fact, many NBC shows are still in its data banks and may be called up for CRD display or print-out."

Why store all of this legacy gear? It helps demonstrate how far along our industry has come, but also reminds us where some of today's lighting philosophies come from. For example, piano boards gave rise to the "tracking" approach of control theory, because a dimmer stayed at its level until the operator physically moved the handle to a new position. This practice of only recording level changes in a cue remains prevalent in today's consoles, including the Eos family. Aside from telling our industry's story, it brings us joy to share these pieces with anybody who walks through our buildings. For many of us, seeing these legacy items feels like seeing an old friend.



18

Our Approach to Sustainability at ETC

t ETC, we understand that small, consistent changes can add up to make a big difference. It's all about the little things, and while we're far from perfect, we're always looking for ways to improve - whether it's in our operations or our products.

Our environmental policy outlines our approach to sustainability. We embrace the phrase, "ETC is committed to preserving the earth's natural environment and contributing to sustainable practices around the world," and work to minimize waste and maximize efficiency in our operations. We're taking steps to reduce our environmental impact at every level – from product design and manufacturing to resource management in our offices. Here's an overview of our efforts.

Durability has always been a cornerstone of our product philosophy, naturally supporting sustainability efforts. We design products that are built to last. For example, our full ETC LED fixtures come with a 5-year warranty, while the LED array is covered for 10 years. We also provide support and repair services to help customers maintain their products for the long haul, reducing the need for premature replacements and minimizing environmental impact. Our original Source Four fixture was a hallmark of efficiency, offering 30% energy savings over the industry standard when it was introduced. The fixtures themselves have proven so durable that we introduced the Source 4WRD II and Source 4WRD Color II which lets users retrofit their existing fixtures with LED light engines, offering more energy savings and reducing waste.

When it comes to manufacturing and shipping, we aim to streamline processes, improving efficiency and reducing waste. We've adopted more sustainable shipping solutions, such as using molded pulp recycled materials for some products as an alternative to traditional packaging. We also try to prioritize shipping by sea rather than air whenever possible. Additionally, when we replace older machines, we choose more energy-efficient options that lower energy use and minimize waste during production.

Some employees take advantage of flexible working arrangements, reducing unnecessary travel. We also encourage the use of public transport and cycling to work where feasible. Multiple office locations are equipped with electric vehicle charge points. We promote the use of reusable cups in our offices to cut down on single-use plastics. We've made several changes to reduce paper usage, like adding QR codes to product inserts, allowing customers to access manuals digitally instead of using printed materials. And, as part of our ongoing digital transition, Penko has moved to fully digital invoicing, eliminating the need for paper invoices.

While these efforts might seem small on their own, when combined, they help us take meaningful steps toward reducing



our environmental impact. One significant change we're especially proud of is our new London office.

The building has earned a BREEAM Outstanding rating, placing it in the top 1% of non-domestic buildings in the UK for environmental performance. It features eco-friendly elements, including rooftop solar panels that generate 180 kW of electricity, along with on-site battery storage to reduce reliance on traditional energy sources. Additionally, electric vehicle (EV) charging points and secure bicycle parking are available for employees and visitors.

The office includes a rainwater harvesting system, an air source heat pump for heating and cooling, and water-saving features such as self-closing taps.

A large green wall (1,550 square feet) enhances the building's aesthetics while supporting local wildlife and improving air quality. To further promote local biodiversity, bird nest boxes, bat boxes, beehives, and 'bug hotels' have been installed to encourage pollination and provide shelter across the site.

Additionally, the office benefits from energy-saving lighting systems managed through ETC's own control technology, with daylight harvesting sensors optimizing natural light usage and reducing unnecessary energy consumption.

Overall, the London office stands as a meaningful example of how we are integrating sustainability into our operations.

As we continue to make strides in sustainability, we remain committed to finding new ways to improve our operations, products, and services. You can check out our Environmental Policy here: etcconnect.com/About/Environmental-Policy.aspx.





Baird Wisconsin Center

Milwaukee's Baird Center finished an epic expansion in 2025, and ETC's architectural controls systems were at the heart of it. The changes expanded the expo hall to 300,000 contiguous square feet and added 100,000 square feet of new ballroom and meeting space, including a spectacular fourth-floor rooftop ballroom. All total, the Baird Center doubled to more than 1.3 million square feet and achieved a LEED Silver rating doing it. The lighting control system was built around ETC's Unison Paradigm. Paradigm's combination of versatile sensors and switches and a flexible and expandable infrastructure meant the system could handle anything the shape-shifting spaces needed. Plus, Paradigm's customizable software interface meant interaction and controls could be seamless and intuitive for users.











SoFi Stadium

Any event at Inglewood's SoFi stadium is likely to be upstaged by the venue itself. SoFi is arguably the pinnacle of stadium design. But no less impressive is the ETC control system that keeps it all running. Every single light that turns on and off is controlled via Paradigm—restrooms, locker rooms, offices, concourses, exterior lighting, and even the signage a few blocks away are controlled by ETC Paradigm. To comply with California Title 24 rules, over 1200 Paradigm occupancy sensors are everywhere. The Paradigm system stores not only game and concert modes building wide, but campus wide. A Mosaic server controls all the signage on the campus, color-changing and white light controls as well as a retail section. Even the landscape lighting has its own distinct presets.



Aquarium at the Boardwalk

Branson, Missouri's Aquarium on the Boardwalk won a 2022 IES Award of Merit for its playful, intriguing, and clarifying lighting. Driven by Instgrammable moments—and controlled via a mixture of Paradigm and Mosaic systems—the Aquarium takes visitors on a journey to the bottom of the ocean and back again. The system follows a regular schedule based on time of day, but allows for interaction with guests and switching colors on exhibits via buttons on tanks, thanks to ETC's easy integration with AV systems. Scheduling is also important for the large octopus sculpture on the outside of the building, which rotates through a variety of colorful looks every night.





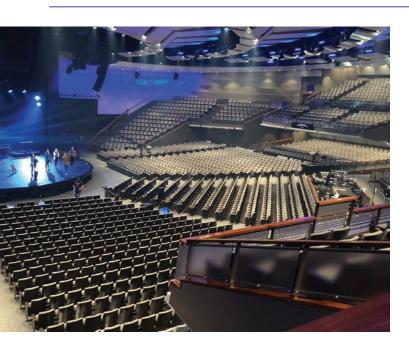


University of New Mexico Physics & Astronomy Interdisciplinary Science Facility

The Physics & Astronomy Interdisciplinary Science (PAÍS) Facility at the University of New Mexico offers 139,100 square feet of space for classes, laboratories, and offices needed to adhere to strict energy standards. Echoflex Solutions supplied wireless sensors, switches, and controllers to help them meet those standards and the support needed to make it humanfriendly. Part of that support included taking designs and precommissioning a system that was easy to install.







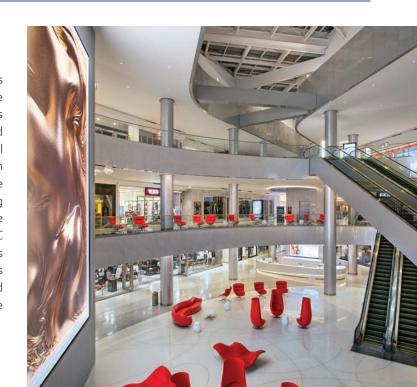
Gateway Church

With a 4,000-seat workship space, Gateway Church's Southlake Campus had their work cut out for them when going LED. ETC's ArcSystem Pro fixtures quickly became the standout luminaire choice for the project. In six weeks, the church's three technicians were able to remove all the old fixtures, install the new ArcSystem Pro fixtures, and run data cable. Gateway Church's Southlake Campus is now equipped with 315 ArcSystem Pro One-Cell luminaires, 124 Pro Four-Cell square luminaires, and 52 Pro Eight-Cell luminaires.

"The ArcSystem Pro fixtures have been awesome to work with. All of our pastors who come in for video shoots and more have commented on the noticeable improvements in how the space feels and looks. It looks brighter, feels bigger, and feels more welcoming," says Ben Catella, lighting coordinator for Gateway Church.

Beverly Center Mall

The Beverly Center shopping destination in Los Angeles recently received a \$500 million renovation, transforming the property with a glamorous new look. The new design floods the building with daylight, centers the shopping area around a new gathering space with a 20-foot-wide and 35-foot-tall video wall, and wraps the exterior of the building with an undulating metal mesh facade that allows light into the structure and acts as a brilliant backdrop for color-changing LED fixtures. The Beverly Center selected ETC to control the intricate lighting design built around these new features. ETC combines DMX, DALI, and 0-10V control in one seamless system. A blend of Mosaic and Paradigm controls matches artificial illumination to daylight intensity and color and coordinates embedded LEDs to color match a large signature video wall to extend the experience.



Mass Mutual Lobby

The lobby of the Boston Mass Mutual building has been called "a forest in the city" thanks to its lighting offering "a stunning display." Designed by Ben Strauss LC, IES, Assoc. IALD, Associate Principal and Josh Feinstein LC, Principal of Boston-based Sladen Feinstein Integrated Lighting with fixtures and architectural lighting controls from ETC, the lobby won multiple IES lighting awards for their work, including a 2022 IES Interior Lighting Design, Merit Award and a 2022 IES Lighting Control Innovation, Merit Award for their use of ETC's Paradigm architectural controls system.

A grid of ETC's heavy-duty track lighting solution DataTrack Backbone allowed larger fixtures with longer throws to be used while maintaining a clean, corporate aesthetic. ETC's advanced control tools let designers create four separate and continually shifting lighting states from morning, midday, afternoon, and night.









Twelve Thirty Club

A modern take on the supper club, the "dapper-as-hell" Twelve Thirty Club was developed by James Beard Award nominee Sam Fox alongside pop superstar Justin Timberlake, with architectural and entertainment lighting control designed by Energy Systems Design. The project was only possible because of ETC's control systems and infrastructure. The lighting control is a mixture of DMX and 0-10V dimming throughout the Club, with ETC's Unison Paradigm system controlling everything throughout all spaces. The crown jewel of the Twelve Thirty Club is the second floor Supper Club, a space that needed to provide a luxurious, world-class venue for performers. At show time, Paradigm hands off to the entertainment lighting console, while still providing dining control over all other areas of the club.

To explore more and see the latest, visit portfolio.etcconnect.com.











rom groundbreaking designs to industry-leading customer service to offices designed with outside-the-box themes, ETC has always tried to stand out. This drive to be different isn't contained within one department or one office but permeates the whole company. So of course ETC's manufacturing department is a great example of this.

Manufacturing Environment

Since ETC's inception, the vast majority of our products have been manufactured in Wisconsin, bucking the trend of offshoring and ensuring consistency and quality in our production.

If you ask someone who works in manufacturing the biggest difference between ETC's Manufacturing department and the shop floor at their previous employer the first answer you will likely hear is some variation of "the environment." One of our biggest goals when designing our facility was to make sure people had an enjoyable place to work. And a big part of that is the light. (Big surprise, right?)

A typical manufacturing area is usually lit solely by rows of fluorescent lights fixed to the ceiling. We knew this wouldn't create the welcoming environment we strive for. So ETC's manufacturing area was designed to be illuminated primarily by eight large skylights. This design allows natural light to fill the manufacturing area

whenever possible, brightening the space and the day-to-day of employees. Of course we do have to rely on other lighting solutions but those have always been meant to only be used in reserve.

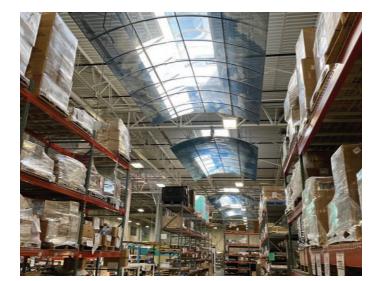
Another aspect of the manufacturing environment that often stands out to guests when they visit is the cleanliness. Manufacturing can be a dirty job; paint, oil, grease, and metal byproducts can all lead to a messy facility. However, ETC employees have such pride in their work and work areas, that the manufacturing area is super clean. VP of Manufacuring, Bill McGivern believes that if you take care of employees, they will take care of ETC. Per McGivern, "Not a lot of manufacturing facilities are air conditioned. Often it is very hot in plants in the summer. That is not the case at ETC. So much so that when we opened our facility in Mazomanie, adding air conditioning was one of the highest priorities before any employees were expected to work there."

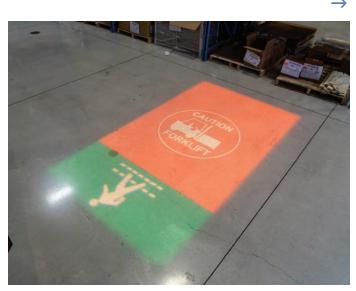
ETC Innovations

ETC has long been an innovator in the lighting industry, creating consoles, fixtures, and systems that push industry limits, but did you know that ETC has also been an innovator in the manufacturing space? Per Dick Titus, ETC's current CEO and former Director of Manufacturing, "Some of this innovation dates back to the early '90s, when ETC purchased LMI. At that time, lead time on L86 dimmer racks was 26 weeks. Through major

changes in manufacturing methods, the new standard became a three-week lead time, with the ability to ship a rack and complete system in a day if necessary!" These updates in manufacturing and ETC's systems approach changed the industry's expectations immediately. Another big issue that any manufacturing facility faces is transporting goods safely. There are always parts to be delivered, products to get shipped, and people hard at work. With all this commotion a manufacturing space can quickly become a minefield of forklifts and people darting across aisles and walkways. To help combat this oftenunorganized movement of people, ETC created colored dichroic gobos to guide people around the chaotic factory floor. These lights are at every intersection of ETC's manufacturing area, ensuring both walkers and drivers can travel the factory floor safely.

Another ETC innovation in the manufacturing industry can only be found at ETC's offices: the floor. On the surface (pun definitely intended) the floor might not look too much different from your typical run-of-the-mill concrete floor. But again: ETC wants to stand out. Our floor was specifically designed to combat Wisconsin weather. Between the snow and rain that is common in the state there is a lot of moisture that can be brought in from the outside, creating slippery and unsafe work areas. To combat this issue ETC created a seal for the concrete floor that









is permeable enough to allow moisture to slip deeper into the concrete, creating self-drying floors.

Artwork Everywhere

When you imagine a manufacturing space you probably don't picture a lot of decorations, maybe some signs calling for safety and a bulletin board with announcements. At ETC, art is at the center of what we do. Artists are the heart of our business and our offices reflect that. In every ETC office, you can expect to see art integrated into the building design and covering the walls. ETC's manufacturing department is no different. Some of the fan favorites for art in manufacturing include the cardboard dragon that oversees the shipping department—an ode to the thousands of packages that leave ETC's shipping department every month. Along with the dragon, the painting of manufacturing machines reimagined as a grasshopper and an astronaut typically draw significant attention during tours.

Quality is Key

Often, when a customer or new employee is introduced to the quality department at ETC, they assume the department is responsible for testing finished products, and that is a part of what ETC's quality department doesbut it is just the start. Unlike a typical quality department, their role does not end after testing is complete. According to ETC's quality team, "quality is defined by the customer when they get their product." To the quality team, if the

durability, performance, precision, and reliability aren't up to the customers' standards it is their responsibility to further analyze production processes and work with departments throughout ETC to get product quality up to customer's standards. Quality and Customer Service aren't just departments at ETC, they are philosophies that permeate throughout the whole company.

Safety Department

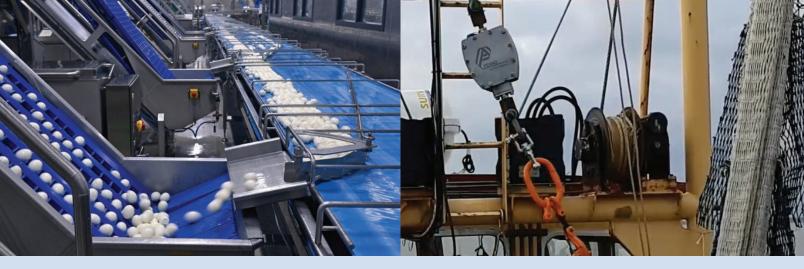
ETC's drive to be unique and innovative is part of what has made it such a success. But when you're dealing with heavy machinery, volatile chemicals, and large amounts of electricity, that drive to innovate can pose a risk. Luckily, our Safety Department is always ready to find a way to stand out from the pack

without jeopardizing employee health. According to ETC health and safety manager Trent Barsness, one major way we do this is by examining standards set by regulatory bodies and finding areas where those requirements aren't doing enough to protect ETC employees. This process of critically examining guidelines has led to ETC's safety team purchasing new machinery and PPE to protect employees and keep ETC at the forefront of safety procedures.

Throughout ETC's existence you will find dozens of things that make the company unique, from the company culture to the office designs or the products we create. However, none of that would be possible without the innovation, execution, and hard work of ETC's manufacturing team.



Kevin Pringle, a Team Lead in Manufacturing - Fixtures/Architectural Controls





PRECISION AT THE HEART OF ETC

enko has an interesting dual heritage of industry and art. They became part of the ETC family in 2004 as a competitive move to dominate the market for entertainment lighting dimmers in Europe and Asia using Penko's noise-free lighting dimmers, which they had installed in arts centers like the Royal National Theatre and the Amsterdam National Opera & Ballet. The strategy was wildly successful, causing each of our competitors to drop power technology from their portfolio, and the Penko facility quickly became ETC's key distribution and logistics hub for Europe.

As the market transitioned to LEDs and dimming technology decreased in relevance, Penko's industrial weighing innovations came to the fore. Today, Penko's technologies are vital to ETC's rigging product lines, where precision weighing systems ensure safe and efficient lifting in entertainment venues worldwide.

Whether you view them as making industrial products for an artistic pursuit or an artistic industrial company, the ETC and Penko partnership has worked because ETC's values of innovation, quality, and dedication to customer service mirror Penko's own.

Founded in 1977 in the Netherlands by Willem van Huët and Vincent van der Wel, Penko Engineering began as a passionate response to the limitations of traditional mechanical weighing systems. Early pioneers of electronic weighing technology, they quickly evolved from a modest startup into a technological leader, developing high-speed, high-accuracy weighing and dosing systems for industries ranging from food production to chemicals. Their precision flavor-dosing for PepsiCo's crisp production lines ensures consistent quality and minimal waste of expensive seasonings.

Their culture of craftsmanship, agility, and deep technical knowledge, has allowed Penko to thrive within ETC's global structure. in their core industrial markets, with cutting-edge products like the FLEX and Alpha series of weighing controllers, critical for high-speed, high-accuracy dosing in industries that demand both compliance and efficiency. Even more recently they developed a never seen before, motion-compensated weighing scale and crane hook. These allow for accurate weighing even in the most unstable environments like a fishing ship on rough seas.

Looking forward, Penko is perfectly positioned for the next wave of industrial transformation. Their commitment to Industry 4.0 principles, integrating real-time data capture, waste reduction, and process optimization—aligns with global trends in manufacturing and sustainability. As awareness grows about ethical supply chains, carbon footprints, and fair trade, Penko's precise and reliable measurement solutions will play a critical role in enabling companies to meet stricter regulatory and consumer expectations.

Guided by ETC's strong support and global strategy, Penko continues to focus on its passion: making complex industrial processes simpler, faster, and more transparent. As global industries demand smarter, faster, and greener technologies, Penko is poised to lead—delivering high-precision, high-speed solutions that enhance both productivity and sustainability. Their commitment to innovation, quality, and close collaboration with customers ensures that Penko will continue shaping the future of weighing and dosing technologies for decades to come.

Eos Shortcuts

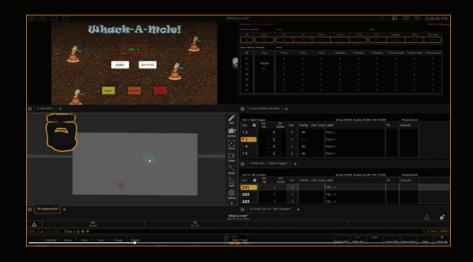
With the load of Eos features at your fingertips it can be a challenge to stay up to date on all the shortcuts Eos offers. In talking with Eos trainers, we created a short list with some must know Eos shortcuts!

- There are three options for setting gel matches: brightest, spectral, or hybrid. Clicking on the tile will cycle you through options for easy access.
- → Did you know you can use Query to select channels in specific conditions? For example, [Query] {Dark Moves} will select all channels that are at zero, but have non-intensity moves. Query can then be filtered by fixture type, keywords, and conditions.
- → Have you ever experienced a problem you need to report to ETC? Hopefully not, but if you have, hitting [Displays] and [Record] will place a "look here" marker in your logs. This helps our service team track down field issues faster so you can get back to the show.
- → [Shift] + {Direct Select Tile} posts the content to the command line, unterminated, so that a sneak time can be applied to the execution.
- You can use [Sneak] [Sneak] to sneak all non-intensity parameters, leaving intensity for associated channels as currently set.
- ◆ [Replace with] in Blind can be used to query for a specified value and replace with another value. For example, Cue 1 thru 20 [Enter]. Channel list @ [Color Palette] [5] [Replace With] [Color Palette] [7] [Enter]
- Pressing and holding [About] + [Cue] will display the source of current data on stage—by cue list/number and/or sub number.
- Pressing and holding [About] + [Part] will expose the part structure for cues.
- [Shift] + [At] reselects the last channel and parameter set, leaving the command line open. This command loops five times.



Whack-A-Mole

Eos Consoles are packed with so many features it can be easy to forget just how much they can do. A great example is the game of Whack-A-Mole, straight out of Eos! The key to the game is using the 'Zones' feature in Augment3d. When setting up your 3D space within the suite, Zones allow you to define regions in your model space, and automatically affect fixture behavior when they intersect with the zone. This works by using Eos and QLab communicating by OSC. Eos runs the game and all the timings, triggering video and audio cues in QLab. A cue in Eos turns the mole on. The player then grabs the moving light and tries to hit the mole before it disappears. If the light hits the mole (zone) in time a macro is triggered by the zone, changing the color of the light and firing off a cue which triggers a sound effect in QLab. Our trigger macro also fires another cue list in Eos which displays the cue label on the Magic Sheet—these labels increase by one hit per cue, acting as a counter for successful mole splatting. A couple more simple macros to reset all cuelists and you're back to whacking moles.







[Figure 1] Click on gear symbol in bottom left of tab to open various tools in Eos Color Picker



[Figure 3] Recipe button in gel picker showing "Brightest"



[Figure 2] Choosing white in Standard Colors library



[Figure 4] "Tint" controller options

LEDs changed the game, giving designers and programmers a wider array of colors to choose from than ever before. The extensive color options make color mixing with LEDs very effective, but it can also make finding an exact color challenging. However, if you are working on an Eos Console there are several tools that can save you time when finding the perfect color.

- 1. Eos offers various color spaces to work in, and a variety of tools to help choose your color, including Gel, Tint, Color Path, and Spectrum options. [Figure 1]
- 2. The gel picker provides pre-mixed color options designed to approximate gels from a variety of manufacturers. The gel picker also provides a variety of temperatures of white light to simplify making a color-mixing LED produce white. This can be found in the Standard Colors library of the gel picker. [Figure 2]
- 3. Additional customization options can be found within the recipe option of the gel picker. This can be found at the top of the screen above the gel library buttons. The "Brightest" option is based on the brightest chromaticity of the gel. The "Spectral" option closely mimics the color transmission from a traditional gel, while "Hybrid" is between the two. [Figure 3]
- 4. The "Tint" controller is another tool that helps programmers translate "designer speak" into adjustments on stage. Whether a fixture is RGB, CMY or X7, the programmer can make changes like making the light warmer or cooler or bringing up the saturation. [Figure 4]

Brighter and Better Together

Lots of places talk about their awesome culture—at ETC we document it! We've got creative, colorful, and competitive coworkers, all contributing to making ETC the best it can be. Along the way to making us successful, we keep finding ways to make it fun.



A Company of Artists

Would it surprise you that a company dedicated to making things look good with light has a lot of artistic people working at it? Many of our co-workers love to perform and we like to give them the opportunity.













A True Town Square

Much ink has been spilled about ETC's Town Square and how it's meant to evoke the flavor of 1940s New York. Less is said about how it truly is a town square for ETC. We hold company meetings there (two folks showed up as Muppets to heckle Fred during a company meeting), use it as a rallying point to go to special events, and so much more. Its charm is the heart of ETC.







A long time ago...

It's not exactly clear when Star Wars became the unofficial favorite movie of ETC, but the Force is strong with us. ETC has a deep and abiding love for the galaxy far, far away and when the movie franchise debuted a new trilogy in 2015, ETC took a holiday and sent all their employees to the movie's opening day!









But that's not the only epic journey we took employees on. ETC was instrumental to the design of The Lion King when it debuted in 1996, and it remains instrumental to the show's vibrant, expansive look nearly 30 years later. In 2023, ETC organized a special matinee to allow all of their Wisconsin employees to take an afternoon off work and see first-hand how their labor contributed to the transportive show.



Play a Good Game

Despite the Wisconsin winters (and sometimes because of them) outdoor activities, sports, and team spirit are embraced at ETC. Whether it's supporting local teams or playing against each other, the competitive spirit (and good sportsmanship) is strong at ETC!















Doing It with Style

At ETC we appreciate the vibrant, the bold, and dare we say ... colorful? We celebrate creativity every day in our products and our people who show up to help, to have fun, and to make the world brighter for everyone.















A Legacy of Service

ETC PROFESSIONAL SERVICES IS NOT SLOWING DOWN

rom humble beginnings five decades ago, ETC's Professional Service Group has blossomed into a large, powerhouse team of customer service specialists, all operating with the same goal - to amaze our customers. Today, Professional Services includes the Systems Group and Technical Services, with over 250 ETC employees focused on the customer worldwide.

The Systems Group helps customers from the beginning, helping them figure out exactly how their system will be designed and what the pricing looks like, handling orders for boxed products, and assisting all through the project's process. Technical Services handles all support post install, including system startup, repairs, and troubleshooting of problems. There is even a group to handle that extra-complicated problem that may require a deeper dive. The goal is the same for everyone: Always take care of the customer

A Launching Pad

ETC Professional Services occupies a special space in the legacy of our first 50 years. Numerous employees have cut their teeth in the department, ultimately moving on to other positions in the company. Networking and Mobile App Product Marketing Manager Kirk Starks is a prime example of this. Kirk began

"Big or small, our support group will take care of vou until we've solved the problem." -Kirk Starks

his career in the Professional Services group in 2008. Starks laughs, "I currently hold the record of the longest tenure in phone support - 14 years, 2 months, and 24 days!"

Kirk says, "What's unique about ETC is our human aspect. With many other companies these days you're likely on with a chat bot. At ETC, we answer the phone. One of the things our group does really well is to talk to anyone about their system. Whether it's a high-profile Broadway show, live-to-air on election night, or the local middle school or church, we help. Big or small, our support group will take care of you until we've solved the problem. Our customers all have the same goal, to get back to doing what they do. They have an issue they need to resolve, and that's what we do best."

Current Vice President of Marketing Sarah Danke is another star who rose through the ETC ranks, eventually becoming our Vice President of Professional Services, a role she had for 17 years before moving to marketing. Sarah, who joined the company in 1990, points out that the LMI acquisition that year supercharged ETC's growth. With that growth came the need to provide customer support for a much larger user base. Gone were the days of Fred providing tech support from his kitchen.

"In 1990, we grew up a little bit as a company," comments Sarah. "We knew we had to mature in how we handled the customer. I came on initially in a very undefined role, as did so many of us that year, but quickly found my niche in customer support. At the time, the department was quite small, with very little formality. But we always knew to prioritize the customer."

Prioritizing relationships, either personal or with a customer, is core to what ETC is. The people we've hired



along the way understood that.

"Customer support should personal to us. We're helping customers do their job better. We're here to support other people's visions, and that human touch is such a core principle at ETC. When we introduced Source Four, the Obsession console, and Sensor dimming in 1992, ETC took off. That was a stressful time, but we kept our eyes on the customer through it all. Providing solutions, listening to our customers' needs, doing the right thing. At ETC, if you do the right thing for the customer, you will always be supported. Our growth in the last 50 years is a testament to that."



In addition to her time in customer support, Danke also worked as the tradeshow manager at ETC in the early 1990s, which was a great opportunity to meet so many of our customers face to face, an opportunity she's determined to continue today.

"Almost all customers will talk to someone in Professional Services at some point. Professional Services is the front line for our company, and it is such a great starting point for ETC employees. They learn in that role, gain an understanding of the customer, then they take it to some other part of ETC. Soon, that customer service ethos is everywhere in ETC."

Service as a Calling Card

Professional Services as a department was formed around the year 2000, a combination of the Quotations and Technical Services groups. Vice President of Professional Services, Durrell Ramer, is another ETC long-timer that brings a wealth of knowledge and experience to the team.

"Taking care of the customer is a core value for us," says Durrell. "Our mission statement and our goals are to amaze customers, and to have people enjoy long thriving careers working for ETC. Both of those are hard work. Everybody can say that they want to amaze customers. It's a lot harder to get into

the trenches and address processes. It takes effort and time."

Durrell makes his case by pointing to how ETC's international growth isn't just to grow bigger - it's a way to help support the customer. As International offices were opened, they allowed for maturing of our 24/7/365 service model.

"The global service element is one of the areas where we've come a long way. We've always guaranteed a call back for emergency support at any hour of the day within 15 minutes, but now with our expanded footprint, it's really improved. You will still get a call back within 15 minutes, but now it may come from our London office when they wake up." \rightarrow



Systems, 2007

Understanding that this could be a challenge with different business cultures and different expectations of service globally, ETC trains our people and take the time to get that right. "We want to make sure that all ETC customers get the highest level of service, no matter what office they are speaking with. And we've invested in systems that help us know who that customer is so that we aren't just taking the call cold."

As ETC grew up, Fred Foster modeled that dedication and passion. The very first Lion King premiered out of town in Minneapolis, and there was a fixture issue. It's a five-hour drive from Madison,

"You put amazing people together and amazing things happen." -Durrell Ramer

but Fred hopped in the car, drove there and solved the problem. "That's part of the DNA of ETC," continues Durrell. "Fred listened to how LDs talked to board operators which helped frame how we built our products. That value has stayed with us - to listen and pay attention. Listen to customers and give



Durrell Ramer stands in Systems, 2025

them more than they expect is part of the mission at ETC."

In closing, Durrell says, "Customer Service is so important to ETC, we launched a companywide training program in 2008. Sarah traveled to all locations of the company around the world promoting the importance of external and internal service. The reason I enjoy working in this company is entirely about people. You put amazing people together and amazing things happen."

Global Service, High **Standards**

Global Technical Services Manager Mike Meskill is yet another success story that started out on the front lines. Starting as an intern in 1995, Meskill was in charge of all the gear for Workshop 1995. When a full-time job in service opened up shortly thereafter, Mike jumped at the opportunity. He says, "By 1998, Sarah was running technical support, I was a manager in field service, and David North was running phone support. At that time, the base of ETC service had been established, but we were still a small company. Our service reputation was really forged in the late 1990s; we weren't the number one company yet, but we were champing at the bit. We established that service standard and it lives on today. The 40% growth year after year during those times was insane but so rewarding!"



David North and Mike Meskill working together on ETC's new headquarters, 2004

Meskill currently oversees global technical support, making sure that customers are treated well all over the world. In the United States, Mike also oversees ETC's Authorized Service Providers, who are critical to our ability to provide service anywhere. He adds, "The current size of the Professional Services department globally is about the size of the company in 1998. It's cool to look at what we have done, to grow and succeed at this level. Technical Phone support is a major entry point for people at ETC. If you spend five or six years on phone support, you become a highly valuable commodity to the company. And Technical Services managers work with every other single part of the organization to make sure that we are helping the customers every

The lighting world has changed drastically over the last half century, but one constant is ETC's goal to listen and give our customers more. For five decades, we have given the industry some truly innovative products, and been amazed at how spectacularly those products have been used to create. Through it all ETC's Professional Services has remained steady on the front lines, creating lasting relationships with our customers. Those relationships and this department are truly the secret sauce to what makes ETC great.

Employee-Driven Philanthropy

MAKING A DIFFERENCE

TC loves to help people and that doesn't stop with lighting. Employees have been trying to make the world a better place since practically the beginning of ETC – and we've approached this with our usual amount of creativity and verve.

Of course we participate in traditional charitable efforts like holiday toy drives, donating to food banks, volunteering for local non-profits, and an annual fund-raising golf outing which raises money for a different charity each year. But ETC as a company has shaped itself in unconventional ways to extend the good we can do.

For more than 30 years ETC has allowed US employees to donate their vacation time to employees in need. That generosity directly benefits another co-worker who has already used all of their paid time dealing with a personal emergency. Now they have more time to deal with the unthinkable.

It's not just individuals at ETC giving, either. At the end of 2004 and into 2005 two large natural disasters changed the way ETC approached charitable giving. Many of us were affected by the earthquake and tsunami in southeast Asia, then Hurricane Katrina battering New Orleans, and we wanted to help in a greater way. ETC's leadership decided to match all employees' donations to support organizations directly helping people affected by the disasters. Employee donations and institutional matching continue to the present, with the most recent funds going to help people affected by Hurricane Helene in 2024.

Additionally, ETC donates all proceeds from the sales of our iRFR and aRFR mobile app sales to Behind the Scenes, a US-based charity supporting lighting and theatre professionals in need, and Backup, a UK-based equivalent. Over the years, we have made more than \$500,000 in donations through this program.

In 2024, the company introduced the Light the Way Program, a new equipment grant program donating sizable lighting packages to US-based organizations dedicated to training future generations of technical and design professionals in the performing arts.

This year ETC granted Light the Way equipment packages to Theatre MSU (Mississippi State University), Pillsbury House + Theatre, University City High School, and Valley High School.

"The goal of the Light the Way Program is to support the next generation of lighting design and technology professionals by putting modern gear in the hands of organizations dedicated to training," says ETC's program administrator, Susan Foster.

"It's never been people asking for help for themselves," says Val Farace, VP of Human Resources. "ETC's charitable giving has been led by employees looking for ways to support others, whether that's right here in Wisconsin, in another state or on the other side of the world. It's truly heartwarming to see all the ways ETC employees have come together to make a difference over the years."



ETC employees wear red to raise awareness for heart health, 2013.



Fred Foster presents a check to Behind the Scenes, 2016.



ETC volunteers clean and make repairs at a local high school theatre, 2017.



Light The Way recipients unboxing equipment, 2024.

INNOVATION AT ETC

Built on Curiosity, Driven by Collaboration

nnovation is at the heart of ETCalways partnered with purpose. Beyond creating cutting-edge products, the company's true mission is to listen to the industry and solve its most complex challenges. From Sales and R&D to Professional Services, listening has always been a cornerstone of ETC's approach. Whether it's a conversation with designers, programmers, and architects—or a spontaneous hallway chat between colleagues-curiosity a genuine commitment to understanding have been essential to ETC's success over the past 50 years.

Nowhere is this spirit more visible than in the company's North Addition, which houses R&D and Marketing. Inspired by the unconventional idea of using shipping containers to build collaborative spaces, ETC created an environment that sparks communication and real-time problem solving. The design centers around "neighborhoods" dedicated to each product line, formed from 41 one-time-use shipping containers. These house private offices and workspaces, all circling shared lab spaces.

Walk through the North Addition, and you're bound to witness impromptu brainstorming sessions—engineers,

product marketers, designers, and technicians gathered in an open lab, solving problems on the fly. No need to book a meeting or send an email—just meet in the lab and get to work. It's innovation by proximity.

"The north addition inspires creativity and innovation," observes ETC's VP of Research and Development, Dennis Varian. "The neighborhoods provide a great balance of quiet spaces for focused work and shared spaces for collaboration. Locating more members of development teams around the labs helps to break down barriers. This is not just an R&D space, everyone is welcome. My favorite parts are the open areas where people gather to share ideas and to celebrate."

And the results speak for themselves. When customers wanted the benefits of LEDs but didn't want to abandon their beloved Source Four fixtures, ETC took on the challenge. The result? The Source 4WRD—a retrofit that preserved the Source Four's legendary optics, accessories, and flexibility, while dramatically cutting power consumption and eliminating the need for frequent lamp replacements. Just as the original Source Four reduced power use by 50%

back in 1992, the Source 4WRD pushed that even further, using about 70% less energy. When considering sustainability, what better than being able to use the innovations of years past, but upgraded to LED technology?

It was a brilliant example of innovation that didn't require compromise—and prevented waste and the cost of full fixture replacement. When customers asked for a color option at an ETC CUE event, ETC listened and introduced Source 4WRD Color, giving customers all the benefits of the original retrofit



Dennis Varian, VP of R&D



while providing additive color mixing, saturated washes, and quick color changes without the need for gel.

Problem-solving isn't just a byproduct of ETC's work—it is the work.

When ETC entered the rigging market, the goal wasn't to mimic what already existed-it was to improve it. Safety, reliability, and ease of use became the guiding principles. The company's first rigging product, the Prodigy hoist, debuted in 2009 and redefined expectations. Designed for venues with limited overhead space-like schools, community theatres, and houses of worship-Prodigy featured a compact form with intuitive control interfaces. It made motorized rigging safer and more accessible, laying the groundwork for an entire rigging product line to follow.

Sixteen years later, ETC looked at the places where automated rigging was not an option. Recognizing that these spaces needed safe, reliable rigging, too, ETC developed Prodigy Balance, a revolutionary approach to traditional counterweight rigging. The self-contained weight stack allows for weight balancing at stage level. This means no more stacking heavy weights from a loading bridge, stories off the floor. Many other features were added as well, making Prodigy Balance safe and simple, restoring the opportunity for students to learn the craft of theatrical rigging once again. This is another example of ETC listening and solving complex problems.

Conquering the Impossible

Started 50 years ago to transform light control, ETC's R&D team has grown from four passionate individuals with bold ideas to a 200+ person powerhouse fueled by imagination and just enough bravado to believe that no problem is unsolvable.

That spirit is evident across ETC's product range. The Eos Family of lighting control consoles has become an industry standard, used everywhere from Broadway stages to university theatres. The integration of Augment3d, a cutting-edge 3D visualization and programming tool, has redefined what lighting professionals can do.

"Augment3d is not just a visualizer. Augment3d allows a digital twin of the venue, scenery, and lighting system to be built. This digital twin enables many years of continued innovation," says Varian. "ETC began by disrupting the lighting control world. Fifty years later, we remain at the forefront of light control technology."

And that dedication extends well beyond entertainment lighting. With the Paradigm architectural control system, ETC seamlessly blends theatrical-level control with sophisticated building automation-keeping everything intuitive for the user, whether they're running an amusement park, office building, or anything else.

When faced with a seemingly impossible challenge, ETC's R&D and Marketing teams often turn to scienceand that's where the Advance Research Group (ARG) comes in. Comprised of just four members, the ARG packs an impressive punch: a PhD, multiple patents, and over 100 years of combined experience.

In 2017, the group took on a particularly ambitious research question: What makes the best light for camera? Rather than rely solely on lab measurements, the team explored how light interacts with a camera's sensor in real-world conditions. Field tests raised even more questions: What does "best" actually mean in this context? What makes the performers look the best? And how can subjective user experience be transformed into structured, repeatable research?

Through extensive experimentation, the ARG established test protocols that ultimately led to a breakthrough: the development of ETC's 8-color X8 LED array, with deep red identified as a crucial component for richer, more accurate color rendering. With the launch of the X8 array, ETC redefined what's possible for lighting on stage and screen-delivering greater depth, nuance, and realism.

This is the kind of innovation that stems from asking hard guestions—and refusing to settle for easy answers.

It's a mindset that traces back to ETC founder Fred Foster, who began with four questions:

- What problem are we trying to solve?
- · What are the options?
- What are we not willing to sacrifice?
- · How do we provide sustainable, high-quality tools to the industry?

questions continue shape the work of ETC today. Their shared purpose: to listen deeply to the challenges facing the industry, to imagine a brighter future—and to have the boldness to believe they can help bring it to life. As ETC embarks on its next 50 years, the possibilities are wide open—and the future they'll help create may be more extraordinary than we can yet imagine.



Part of the work we did developing the X8 array was taking a multitude of photo color tests.



Illuminating the Path to a Greener Future





TC spent decades refining the technology that goes into our lighting fixtures, controls, and rigging systems. While our start was in theatre, we have continued to evolve and expand.

The most recent expansion of ETC's product offerings was the creation of ETC's horticultural lighting brand, RAYN Growing Systems. The idea of expanding ETC's portfolio into horticultural lighting was caused by a culmination of factors. The first was a visit by plant scientist Tessa Pocock, who saw ETC's work on multi-spectral lighting at the Middletor Factory and was convinced the technology was needed in the horticultural sphere. This visit, along with ETC Founder Free Foster's desire to create a product that could positively impact local communities and leave a lasting impact on the future ultimately led to the creation of RAYN Growing Systems.

Researching the Researchers

By 2018, the process of starting RAYN was in full swing. ETC partnered with the Greenhouse Lighting and Systems Engineering (GLASE) consortium and met with stakeholders in the horticultural lighting world. Plant physiologists provided crucial input for the development of RAYN's very first horticultural research products.

Today, RAYN's horticultural research products feature ar array of tools, including multiple different luminaires for use in a wide array of research settings, control systems to help manage more complex experiments, and a camera complete with open-source software that processes and analyzes the multispectral images taken from the camera.

Expanding Into Education

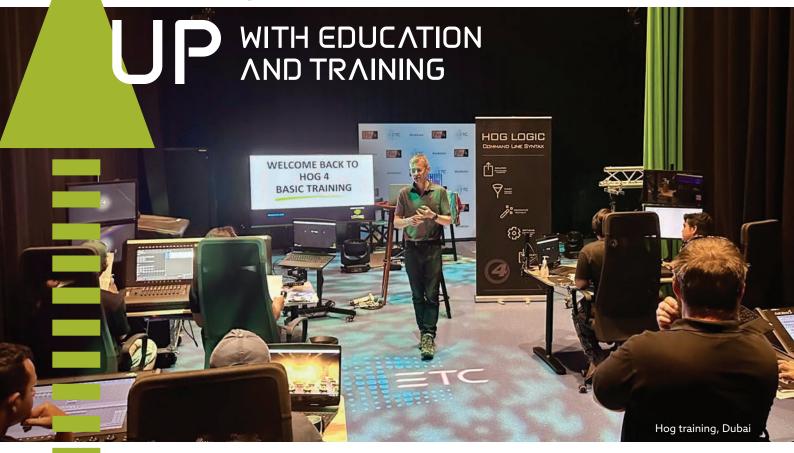
Recent trends have revealed another area where the RAYN team can make an even greater impact on local communities and the environment. In January 2025, RAYN launched the EdRack, a horticultural learning tool specifically designed for STEM education. The EdRack was created so that teachers and students can replicate commercial growing techniques within the constraints of a classroom. The hope is that EdRack's real-world teachings will foster a passion for horticulture, agriculture, or the environment itself within students, while also providing teachers with a hands-on way to teach these skills without a garden or greenhouse. The RAYN team has started searching for corporate partners to help sponsor EdRacks and put them in classrooms across the country.

Long-term, the RAYN team hopes to expand their educational offerings with more variants of the EdRack. Already in the works is an EdRack designed to be more accessible to middle and elementary school students and even one specifically designed for growing commercially viable microgreens. Through RAYN, ETC is planting the seeds for a brighter, greener tomorrow.

To learn more about how RAYN is shaping the future of research, education, and horticulture, visit www.RAYN.ag



EVELING





lifelong commitment to learning is inherent to any job in our industry. Technology always evolves. Standards change. Software you never even dreamt of becomes available. New tools are exciting and offer great opportunities to make better lighting-but keeping up with it can seem daunting. That's why ETC is always there to help, making training accessible, invigorating, and whenever possible, fun.

"From the start, ETC has always backed our products with the highest quality service and support," says Sophie Pierronnet, ETC Education & Training Manager. "As we grew and expanded our product

portfolio and user base, it quickly became apparent we needed to support our customers with top-tier educational resources."

Not just in the U.S. either! For many years, ETC has placed increased emphasis on education and training opportunities across the globe. No other manufacturer offers ETC's sheer breadth of educational resources. In fact, Pierronnet mentions that her long term goal for the education team is "to one day be librarians of training material. For example, creating the ultimate source of educational content on networking, so any of our international educators can pull from that to create courses for

end users, technicians, and sales partners."

Gathering to Learn

ETC offers in-person training around the world, covering a wide range of content, including console programming, lighting and stagecraft basics, architectural and power control, as well as technician training.

Education Outposts in New York, Florida, Wisconsin, Texas, and California regularly host Hog and Eos training, as well as Echo, Mosaic, and Echoflex boot camps. Key training hubs in the UK, Germany, Dubai, Hong Kong, Italy, and the Netherlands serve regional needs,

hosting classes ranging from basic lighting skills to advanced programming techniques.

"In addition to these established outposts, ETC holds training at additional locations throughout the year based on need and interest, ensuring that education is accessible to as many professionals as possible," adds Pierronnet. "By offering such a flexible approach, ETC fosters a truly global learning community."

One of ETC's most popular offerings is the Lighting Essentials series. These classes bring customizable training curriculum to schools and organizations that are seeking a more tailored learning experience. This education offering invites customers to build their own training schedule from a selection of 18 available courses. While some courses are specific to ETC products, many focus on broader topics such as color theory, lighting paperwork, and troubleshooting basics.

It's all hands on deck when ETC hosts its two massive educational events, CUE and Workshop, at the Middleton headquarters. CUE invites students, educators, programmers, and designers to our home base for several days of learning. Workshop offers curriculum to dealers and manufacturer reps that levels up their knowledge of the industry as well as ETC products.

Reflecting on why CUE and Workshop are important to ETC, Pierronnet says, "These events help us maintain a strong connection with our customers and sales partners, while providing a venue for important industry conversations to happen."

While we love to host in-person training as much as possible, ETC also recognizes the benefits of making learning available online. The Eos Family Learning Series, Learn Hog 4 Series, and Mosaic Video Learning Series all feature videos freely available on YouTube, catering to learners at all skill levels.

The LearningStage online platform, which launched in 2016, offers training videos, quizzes, and more, to make learning on the fly as easy as possible.

ORIGINS OF THE EDUCATION CENTER AS TOLD BY ELLEN WHITE

Ellen White began her career at LMI in 1988 and moved to Wisconsin in 1990 after the acquisition, working in ETC's Quotations Department. Now, as a Senior Outreach and Training Specialist, Ellen shares decades of knowledge with future generations of lighting professionals.

"Tony Romain and I worked on a proposal for a Product Education Program. For the next few years, I would visit local schools or have schools come to ETC."

"Fred and I chatted about taking the program more nationally. We joked about me traveling the country in a motorhome outfitted with consoles and lights. We created our first brochure."

2002 "We used a roadcase image on t-shirts that were handed out at venues that I traveled to."

"I had done 38 road shows, mostly in the Midwest, but a couple in the West, a couple in the Northeast, and a few in the South. I didn't travel in a motorhome, but I did ship gear and travel to the sites."

2006 "We started hiring outside trainers and doing more events at our regional offices."

2016 "We introduced LearningStage, ETC's online training platform."

2020 "We faced the global pandemic, which led to ETC doubling down on its online training resources with the advent of our online Study Hall program."



Ellen White helps launch the Source Four at LDI in 1992.



TRAINING BY THE NUMBERS

- · As of 2025, the Education Center has hosted more than 700 training events in North America, with more than 25,000 people participating in those events.
- · The most popular LearningStage course is Networking Fundamentals, with 6,734 students enrolled, followed by Data Types and Topologies with 2,302 students enrolled.
- 29,398 courses have been completed in LearningStage since the new platform launched in April 2023.
- · Learners have earned 8,834 badges in LearningStage since the April 2023 platform launch.

In 2020, as so many activities moved to an online format due to the global pandemic, ETC saw an increase of nearly 1,000% in LearningStage users. LearningStage saw another boost in usage in 2023, as it moved to a new and improved platform. Today, it remains a highly used resource for ETC end users, staff, and technicians.

The education team also supports the high standard of service of our Authorized Service Provider Network. Each Authorized Service Provider undergoes rigorous training to ensure that ETC systems are installed and serviced by capable technicians. Employees or contractors of ETC sales partners are able to attend in-person technician training in multiple countries or take online learning courses to complete technician training at various levels.

Beyond the Products

"Training customers about how to use our products, like Eos or Mosaic, remains a high priority for the education team," says Pierronnet. "However, many of our training efforts are developed purely because we think members of the industry will benefit from the knowledge."

For example, the On Headset audio series is an opportunity for students to practice programming skills in realtime while listening to award-winning Lighting Designers Ken Billington and Paule Constable direct their lighting

teams on productions for New York City Center ENCORES! and London's National Theatre.

ETC's "Hamilton Programming Project" offers an engaging way for students to put skills into practice. The project consists of a collection of exercises that use actual touring paperwork from the Broadway musical Hamilton to help students practice in Eos Augment3d-and learn how Broadway tours operate.

A 72-page e-book, Stage Lighting Design: An Introduction, is also free to download on the ETC website to help educators better understand and explain the basic elements of stage lighting. The guide covers basic illumination techniques, learning exercises, and



TRAINING AS A PART OF THE ETC PHILANTHROPY PHILOSOPHY

ETC is proud to provide equipment grants through its Light the Way philanthropy program. This program each recipient receives hands-on training from ETC's education team, ensuring that the gifted equipment

more. A series of posters was developed in conjunction with this e-book, offering an eye-catching display for classroom walls to reinforce key elements of stage lighting. These posters are available in seven languages and are also free on the ETC website.

"A passion for lighting design and stagecraft is inherent to ETC's culture. That helps breathe projects like these to life," says Pierronnet. "We get just as excited putting this content together as customers are to download and explore it. "

Driving Mentorship

Among the educational efforts that are incredibly meaningful to ETC is the Fred Foster Student Mentorship Program. This initiative was sparked by Fred's passion for mentorship as a key building block in any lighting professional's career.

Seeking to use ETC's resources to help build the next generation of lighting greats, Fred officially started the company's student mentorship program with the 1999 LDI show. Six students received an all-expenses-paid trip to Las Vegas for LDI. There, they met with some of the industry's top talent at an ETC-hosted reception to make introductions and network about their careers. Since then, the program has evolved. In addition to meeting at an ETC-hosted event, program organizers began to pair students with long-term mentors. Once matched, students are encouraged to remain in contact with their mentors for career advice, portfolio reviews, and even tech visits.

In 2020 the Fred Foster Student Mentorship Program was hosted entirely online for the first time ever. Hosting events virtually gave ETC more flexibility in the reach and scope of the program. In place of the in-person reception, a large and lively Zoom event now introduces the mentees to mentors. ETC also added numerous designer roundtables focused on specialized topics, such as theatre, television, themed environments, live events, and more. As program organizers begin to match students with their mentors,

they also coordinate spotlight sessions in which students share their work with a small group of mentors to receive direct feedback on their portfolio.

While ETC organizes Student Mentorship Program events (alongside long-time contributors Paula Dinkel and Josh Allen), these efforts would be in vain without the generosity of the mentors who share their time and wisdom with the students. Dawn Chiang, a Lighting Designer and key contributor to the program, says, "Over the years, I have connected with several wonderful early career lighting designers through the Fred Foster Student Mentorship Program. It is a great way to begin a conversation about the work and the industry, on a one-on-one basis."

When asked to reflect on the significance of mentorship in our industry, Lighting Designer Don Holder, another active mentor in the program, shared, "I am enormously thankful for the mentors and teachers I encountered in my own life who inspired, taught, and challenged me, who believed in my potential and offered the encouragement I needed to keep growing and moving forward. I know that Fred Foster and I share a similar passion for raising up the next generation, and I've always been honored to participate in the Mentorship Program devoted to his memory. This endeavor has given a multitude of career development opportunities to many young artists and artisans, and it's been a thrill to work with several of the program's impressive alumni over the past few years. ETC's commitment to education and training in our industry is bar-none, and I am happy to support their efforts in any way I can."

Learning Into the Future

ETC is constantly enhancing and expanding training opportunities. As we plot out the next 50 years at ETC, we aim to continue being a top resource for learning among our customers and partners.

"From my exchanges with customers and colleagues over the years, one thing seems clear: ETC takes providing



Randall sports a custom, colorful vest.

WEAVING COLOR THEORY INTO THE FABRIC OF **LEARNING**

You could say ETC is obsessed fabric.

central to our sessions on how light interacts with color that the education team made a special request to have vests made from the fabric. With a white interior, the trainers can easily show how light appears on colorful fabric in making a fun fashion statement!

training to our end users, dealers, reps, authorized service providers, and employees very seriously," says Pierronnet. "Training is an inherent part of our support philosophy."

Our Engineering, Your Magic

Our company began as Electronic Theatre Controls in 1975. In those days, founder Fred Foster's favorite t-shirt sported a Robert Heinlein quote: "One man's 'magic' is another man's engineering." Fred believed that he could make magic—and an engineering company was born.

ETC has changed its name and grown a lot since those first days. We have broadened the markets we address, and we no longer deal exclusively with entertainment. But the "Theatre" part of our old name is



our root. Many of our employees, past and present, have come to us from backgrounds in theatre or other live performance. ETC's devotion to our customers, their needs, and to customer service was born from our deep and personal understanding of the particular and urgent demands of the performing arts.

Live performance is difficult work carried out collaboratively. It teaches us the value of creativity, precision, urgency, camaraderie, shared passion, and teamwork. It teaches us the joy and pride of making something unexpected and dazzling. Over the years, and as a result of our association with entertainment, ETC has honored these same values.

Our work is making things, but we don't do it alone. You are our partners throughout the process of creation. The art you make, the tools you need, and the problems that you are trying to solve drive our innovation. We write code, develop, build and test new concepts, and bring them to you. You, in turn, take them out into the world and make magic.

And that, really, is ETC's purpose—to make the tools that you use to make magic, to make art, and to make beautiful spaces. This has been our guiding star for the last 50 years and we plan to spend the next 50 years expanding on what that means.

Magic does not just happen on stage. We believe that any space can be special and deserving of care, attention, and passion. Every store, restaurant, museum, office building, and opera house can be elevated by nuanced lighting and elegant control. What matters is attention and intention—the desire to transform the everyday into the extraordinary. ETC is here for you when you want to make something cool—wherever and whatever that is.

When ETC was founded, we could not have imagined the road we would travel, the products we would create, or the community we would build. We are incredibly grateful to all of you—our employees, our customers, and our industry. We wouldn't be here without you.

These last 50 years have been a thrilling ride, and we can't wait to see what we will build together over the next 50 years. We'll keep engineering. You keep making that magic.

- The Fosters





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