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Architectural Project Portfolio



Photo: Alan Karchmer



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Architectural Services and Markets

Combining decades of experience in architectural and themed environments with a keen sense of what a designer wants, ETC is an integral part of award-winning and noteworthy installations around the world.

ETC's control and infrastructure options are flexible enough to work in any space, powerful enough to handle the largest of campuses, and customizable to fit even the most unique location. Our products are integral to any project that needs customized, tailored lighting control.

ABOUT ETC

ETC is a leader in the manufacture of lighting and rigging technology for architectural and entertainment applications worldwide. With an array of lighting-control systems; conventional, LED and exterior lights; power-control systems; networking products; emergency-lighting equipment, and more, ETC has the solutions for a full spectrum of specified lighting projects.

Founded in Madison, Wisconsin, in 1975, ETC began as a college project that grew into an award-winning company focused on producing the highest quality products. Over the years, ETC has expanded by product development and acquisitions to include over 1000 employees in 11 corporate and several home offices in a dozen cities around the globe.

Since its beginning, ETC has earned an industry reputation for unmatched technical and customer service. In addition to its own renowned service department offering 24-hour support, ETC has nearly 300 authorized service centers throughout the world staffed by hundreds of certified technicians. Customers are guaranteed the assistance they need throughout the entire life of a product.

OFFICE BUILDINGS
BUILDING EXTERIORS
CONVENTION CENTERS
GALLERIES
HOTELS
HOUSES OF WORSHIP
MUSEUMS

ARENAS
PARKS
RESTAURANTS
RETAIL SPACES
STADIUMS
THEME PARKS

Energy efficiency and conservation are increasingly a part of building codes, and ETC's products ensure that every project meets or exceeds these requirements. Daylighting, occupancy detection, scheduling, and more can easily be integrated into any system.

ETC's control platforms make dealing with any kind of lighting easy, whether that's special programs for the exterior of buildings, presets for internal lighting, or sequences to apply lighting effects throughout a building or project. Our system design is forward, thinking too, giving designers, builders, and installers all the tools they need while keeping the installation process hassle-free. Programming and commissioning time on an ETC project is quick and easy.

One of the most important parts of purchasing an ETC system is the customer and technical service that come standard. With a single-point support structure for an entire system, ETC works with clients every step of the way to select the right products, ensure the installation goes smoothly, and properly train all staff. If an after-hours issue comes up, ETC's phone support group is available 24 hours a day, seven days a week, 365 days a year.

Hyatt Regency at the Colorado Convention Center

DENVER, CO

The lighting at the Hyatt Regency at the Colorado Convention Center in Denver was designed by Babu Shankar of Integrated Lighting Design, and looks as beautiful today as it did when it was first commissioned. The system has ETC's Unison Paradigm® at the helm, making the control system beautiful, too.

Large-format Touchscreens have been custom programmed with a map-based system revolving around actual pictures of the hotel. Facility staff graphically navigate a map of the hotel to choose which areas to light and the look of the space. Virtual Touchscreens running on PC's let AV staff monitor lighting and make changes right from their office, quickly responding to any special requests. Thanks to Paradigm's communication with other building systems, the Touchscreens can graphically show room status, tracking whether air walls are opened or closed, and more.

ETC EQUIPMENT CONTROLS:

Lobby Decorative Exterior Lighting
Ballrooms Hallways

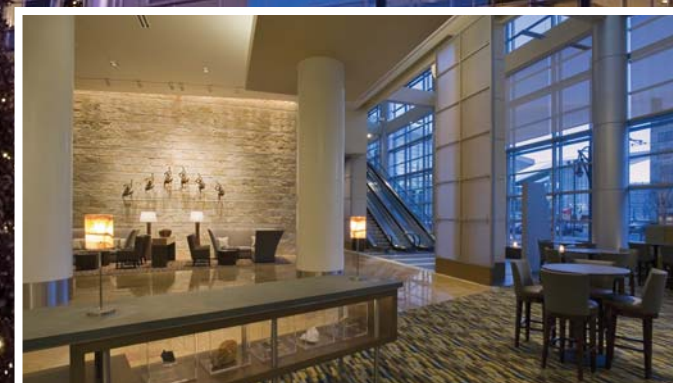
SPECIAL EVENT LIGHTING

Buildings everywhere are incorporating specialized colored lighting on their exterior to coordinate with local events or holidays, and the Denver Hyatt is no exception. The Paradigm system controls LED exterior lighting for the hotel, allowing the staff to make simple changes to the external colors on the tower to preset looks, or even choose a new color combination, and visually track the changes on the Touchscreens.

ETC EQUIPMENT LIST

ERn2 Enclosure with Paradigm Control
Paradigm Central Control Server
Unison Heritage Button Stations

Wall-Mount Touchscreen Stations
Portable Touchscreen Stations





Planet J

COTAI, MACAU

Planet J is a live-action, role-playing theme park, meant to emulate the experience of walking into your very own video game. The environment offers clues to the games and also responds as players make their way through puzzles.

Creating a color-saturated, magical world to draw people in demanded a special type of lighting fixture. Planet J's lighting system embeds hundreds of ETC fixtures into the environment to offer stunning color at every turn. ETC's Source Four LED Lustr+ fixtures use the unique X7 Color System, offering full spectrum color to ensure that both the environment and the people look great. The addition of Desire Vivid and Lustr fixtures placed eye-popping color throughout the park.

Because Planet J is a theme park, it needed to be a stand-alone installation. ETC's Unison Mosaic® Control system offers timeline programming, letting designers create shows that run automatically. It can also incorporate lighting events triggered off inputs from the environment, ensuring the lights respond to players.

ETC EQUIPMENT CONTROLS:

In the 95,000 square feet of interior space, the park is divided into eight zones, each with a unique theme and different lighting concept. All of this added up to hundreds of fixtures and with thousands of channels of control. The solution was a combination of Unison Mosaic and Paradigm architectural control, utilizing DMX and DALI protocols across 92 universes (47,000 addresses) and 16 DALI loops (1024 devices). ETC controls have proven again and again their capabilities to handle the size of the installation and the demands of interactivity across it.

ETC EQUIPMENT LIST

Mosaic MSCX-40 Controller
Mosaic MSCX-50 Controller
Paradigm Central Control Server
483 Source Four LED Lustr+ fixtures

575 Desire D60 Vivid fixtures
255 Desire D22 Lustr fixtures
37 Desire D40 Vivid fixtures



Smithsonian

National Museum of African American History and Culture

WASHINGTON, D.C.

The Smithsonian National Museum of African American History and Culture is the newest iconic building in Washington, D.C. ETC architectural control products handle the entire museum, with ETC fixtures used throughout.

The bronze-clad exterior of the museum blazes in the afternoon sun, and thanks to Mosaic events the ornate facade shifts easily into nighttime looks. Inside, Source Four Minis light all the exhibits, and Source Four LED Series 2 fixtures with their LUSTR+ array of high-quality color are present throughout. An ETC Mosaic system capable of tens of thousands of channels of control governs lighting in the galleries and is tied into the overall Paradigm system for a cohesive control interface for the front-end of the facility.

ETC EQUIPMENT CONTROLS:

Building facade	All exhibit lighting	"Founding of America" Wall
All lobby areas	All office spaces	Oprah Winfrey Theatre

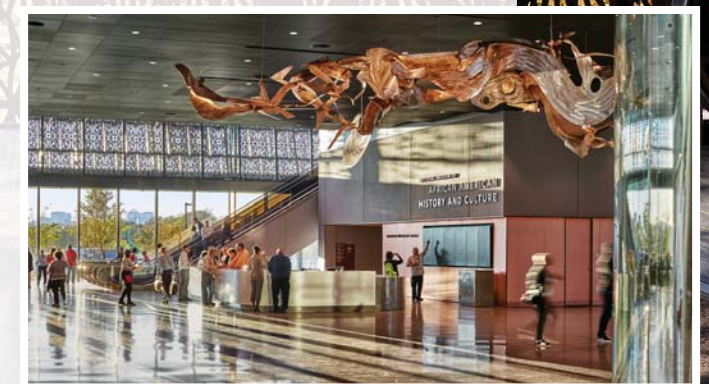
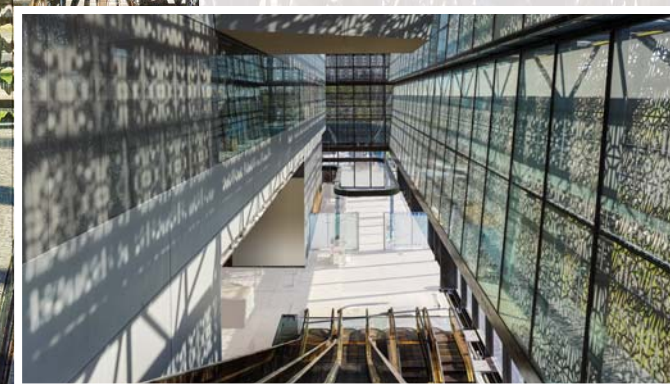
GOLDEN STATUS

Paradigm's Responsive Controls include occupancy/vacancy sensing, daylight harvesting, and more. These, combined with an extreme interoperability that made sure the lighting can interface with emergency and AV systems, made Paradigm a vital part of the building achieving LEED Gold status.



ETC EQUIPMENT LIST

Paradigm Architectural Control Processors	Light Sensors
Paradigm Touchscreens	Occupancy Sensors
Paradigm Handheld Stations	High-Ceiling Occupancy Sensors
DRd12 Enclosures	Sensor3 Dimming
Echo Architectural Control Processors	Source Four Mini LED Gallery
Emergency Bypass Detection Kit	Source Four LED Series 2 LUSTR+
Emergency Lighting Transfer Switch	Gateways



JUMP

BOISE, ID

JUMP started life as museum, but thanks to the vision of its board, the project grew in leaps and bounds to become something more. It is now an enormous community space in downtown Boise, and its facilities support a multitude of interests. The multi-use space functions as a park, recording studio, test kitchen, event space, and a museum with exhibits dedicated to antique tractors dotted throughout the grounds. Such a wide variety of purpose required a variety of lighting systems, but needed only one company to provide them all: ETC.

ETC's Unison Mosaic controls the lighting for the urban park that surrounds JUMP, including the exhibits of unique tractors, and a massive, five-story slide. Mosaic ties in to a Paradigm control system that oversees the indoor spaces. Paradigm Touchscreen stations give users the ability to change the color of lights in the different spaces, while environmentally-friendly responsive controls implement Daylight and Occupancy Sensors to insure the building meets its energy goals.

ETC EQUIPMENT CONTROLS:

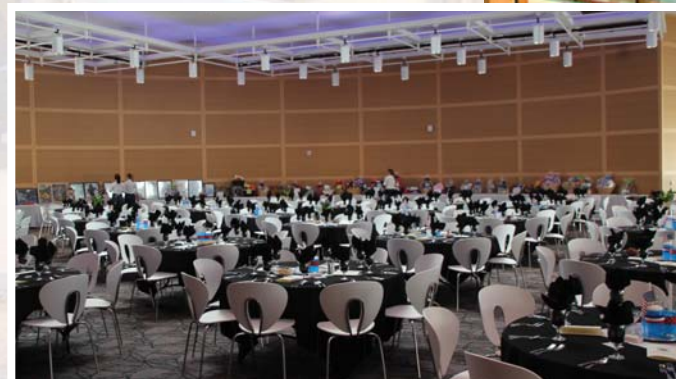
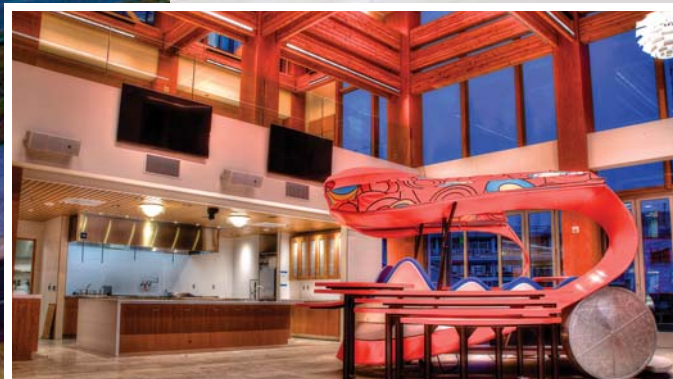
Exhibits	Office Space	Hallways and Corridors
Dance Studios	Lobby	Park Areas
Teaching Kitchen	5-Story Slides	Building Exterior
Recording Studio		

FORWARD THINKING EMERGENCY LIGHTING

With DMX-controlled color-changing fixtures in the building, JUMP had to be sure that the emergency DMX fixtures would always function. They ensured everyone's safety with one of the first installations of ETC's DMX Emergency Bypass Controller. The DMX Bypass Controller (DEBC) makes sure that appropriate DMX control is present in emergency situations and insures that high-quality, design-crucial color fixtures used for dynamic lighting are also an integral and appropriate part of the emergency lighting system.

ETC EQUIPMENT LIST

Paradigm Central Control Server	Paradigm Touchscreen Stations
Paradigm Architectural Controllers	Daylight Sensors
Mosaic Controllers	Occupancy Sensors
Echo Architectural Controllers	D40 Luster LED Fixtures
DRd Rack Enclosures	Source Four LED Series 2 Tungsten fixtures
Emergency Bypass Detection Kit	Source Four LED Series 2 LUSTR+ fixtures
DMX Emergency Bypass Controller	





ENVIRONMENTAL ARENA
The T-Mobile Arena is a LEED Gold certified facility.

T-Mobile Arena

LAS VEGAS, NV

The T-Mobile Arena opened in April of 2016 as the ultimate entertainment venue and has hosted dozens of world-class entertainers including the Rolling Stones and Coldplay. With a 20,000-seat capacity, the arena is setup to host everything from UFC to basketball, large concerts, hockey, and family events.

Located on the Las Vegas strip, the venue includes not only a large entertainment space but also restaurants, a private lounge with VIP access, luxury suites, party suites, and a two-acre outdoor pre-event area. The majority of these spaces include ETC equipment and control.

Below are screen shots taken from the building control system provided and programmed by ETC. These screen shots show the complexity of the lighting controls for the T-Mobile Arena and the large number of spaces controlled from a single touchscreen device.

ETC EQUIPMENT CONTROLS:

Event Levels A-D	Catwalks	Suites
Concourse	Mezzanine	Tower Levels

ETC RIGGING

ETC offers a variety of customizable rigging hoists that have a long tradition of design, engineering, and manufacturing excellence. Hoists are designed as part of a total system taking into consideration installation restrictions, operator safety, and overall application.

Ideal for stadium score boards, the hoists are low-speed, and high-capacity. ETC has custom designed and manufactured hoists with a capacity of up to 150,000 pounds.

ETC EQUIPMENT LIST

Echo Relay Panel	Echo Architectural Control
Emergency Bypass Detection	Occupancy Sensors
Unison® Button Stations	Mosaic® Show Control
Response Gateways	Eos® Entertainment Control
Paradigm 7" Touchscreens	Sensor3 Power Control
Paradigm 18" Touchscreens	EchoAccess® Interface and Mobile App Control
Unison DRd Power Control	



Tilikum Crossing

PORTLAND, OR

As a statement on the importance of the river to the Portland area, Tilikum Crossing was designed to integrate compelling architecture, dynamic river conditions, and a thrilling display of light art to accentuate the Portland skyline.

The system design, crafted by Reyes Engineering in Portland, involves a dynamic lighting system that alters the bridge's lighting effects based on environmental data collected by U.S. Geological Survey equipment. Custom software translates the data into lighting commands, executed by an ETC Ion® Remote Processor Unit (RPU). A series of DMX splitters and 15,000 feet of cable deliver these commands to 178 Desire D40 XTI outdoor fixtures positioned throughout the bridge. The Desire D40 fixtures were insisted upon by the bridge's lighting designers, thanks to their broad color range and the quality of their color rendering.

ETC's legendary support also lent a hand to the project, making sure light focus could happen during the day, since bridge workers were not authorized to work at night. Techs mounted a rifle scope to each fixture to aim the lights at specific points on the structure during the day. It is a prime example of how out-of-the-box thinking at ETC combined with our American manufacturing and dedicated support can make anything happen.

ETC EQUIPMENT LIST

- Ion RPUs
- 178 Selador Desire D40XTi fixtures
- Custom controls
- Custom mounting

MADE IN AMERICA

While the artists made demands about color, civil engineers made demands about ruggedizing fixtures to accommodate vibration on the bridge and securely fasten them to the structure. Thanks to ETC's Wisconsin-based manufacturing, the fixture customization was easily done. Manufacturing was also key in making sure the whole system satisfied the "Made in America" requirements of the public works project.

