ULTRA SOLUTIONS

ARCHITECTURAL LIGHTING

Architectural lighting

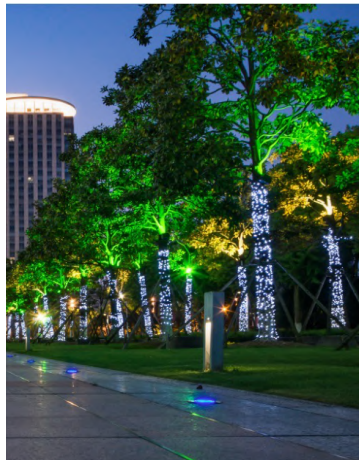
Architectural lighting shapes a city's identity, enhances its aesthetics, and creates a unique atmosphere. Unified streetlights, facade illumination, and landscape lighting come together to form a harmonious urban lighting design

MEDIA FACADE LIGHTING

Transform cityscapes with dynamic media façades that captivate attention, elevate urban identity, and deliver impactful visuals with energy-efficient technology

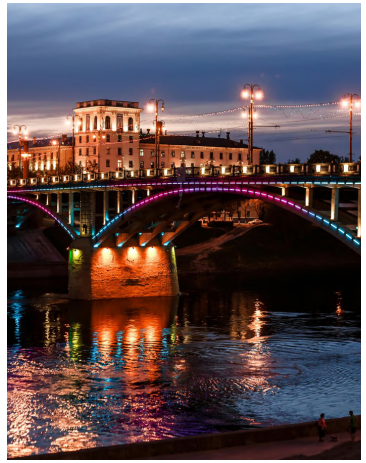
DYNAMIC FACADE LIGHTING

Bring architecture to life with dynamic lighting systems that create captivating motion effects, boost tourism, enhance civic pride, and reinforce a city's unique identity



LANDSCAPE LIGHTING

Enhance outdoor spaces with landscape lighting that highlights natural beauty, adds depth and ambiance, and creates inviting environments for communities to enjoy



FESTIVE LIGHTING

Transform public spaces with festive lighting solutions that create enchanting atmospheres, elevate community spirit, and make celebrations unforgettable

ARCHITECTURAL FORMS LIGHTING

Illuminate architectural forms with precision lighting solutions that enhance design details, create striking visual impact, and elevate the aesthetic appeal of any structure

Smart Architectural Illumination by DITRA

MEDIA FACADE LIGHTING

The solution includes the central controller **DITRA ArchiCore Media**, which can be installed in a control cabinet or any standard lighting control panel, enabling seamless control of media façade lighting. This system allows for the recording and generation of lighting scenarios, distributing them to execution devices while synchronizing with audio signals.

Key features:

Flexible and Scalable Solution

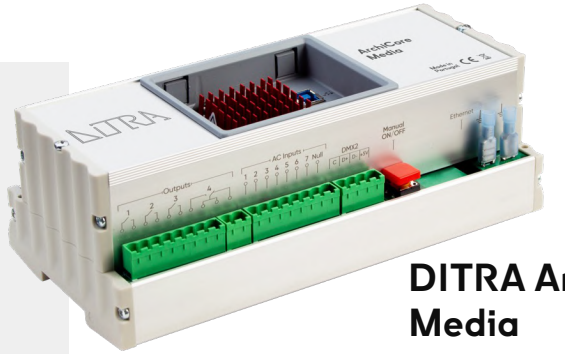
Regardless of the project's complexity, an unlimited number of lighting points can be managed, providing adaptable solutions for various needs.

Remote Management

Direct connection to DITRA software via GSM or Ethernet

Installation Options

At DITRA, we understand that some projects require controller installation even in the harshest environments. That's why we offer several enclosure options for both indoor and outdoor installation, featuring IP67 protection.

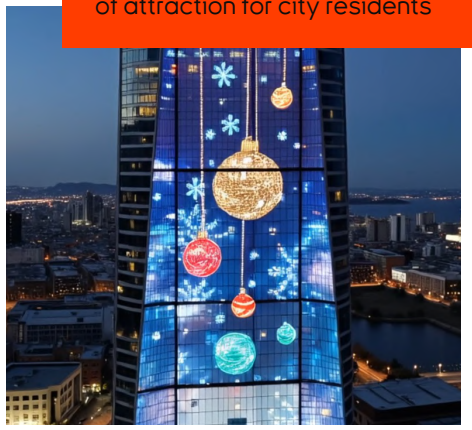


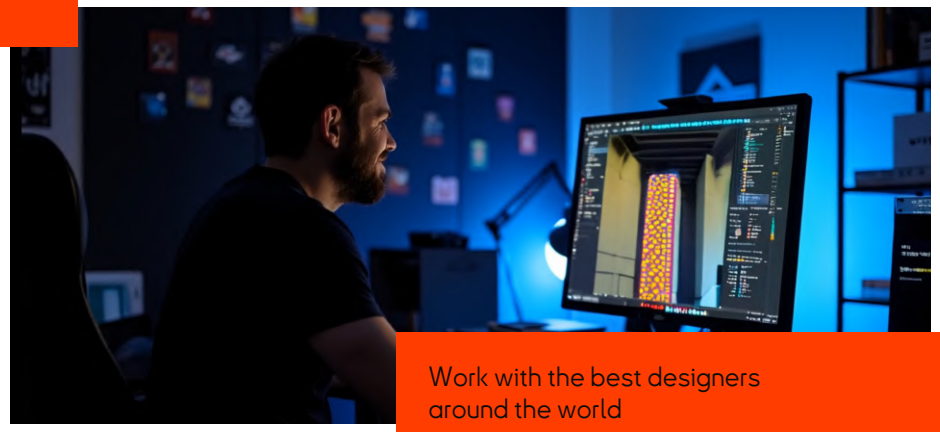
DITRA ArchiCore Media

DITRA PowerGate

Highlighting the functional purpose of the building

Creating spaces that become points of attraction for city residents





Work with the best designers around the world

Smart Architectural Illumination by DITRA

DYNAMIC FACADE LIGHTING

For this type of lighting the **DITRA ArchiCORE** controller is utilized, a cutting-edge control processor designed to revolutionize architectural lighting management. This sophisticated system combines precision and adaptability to create dynamic and captivating lighting control at the same time

Key features:

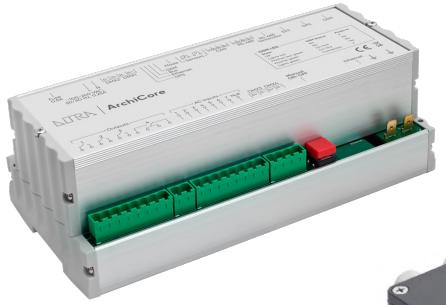
Reliable Operation
Accepts 100-250 V AC power with an internal backup feature for uninterrupted performance

Remote Management
Direct connection to DITRA software via GSM or Ethernet

Durable and Compact Design
Engineered for both indoor and outdoor environments, featuring a compact DIN rail mountable form factor for easy installation

Advanced Integration and Flexible DMX Line Management
Supports DMX512 protocol for precise control of dynamic luminaires and flawless synchronization. The **Splitter Duo SHIELD** can be used to branch DMX lines, while the **RadioGate SHIELD** enables wireless DMX signal extension for separated lighting groups or where wiring is not feasible

DALI Integration for Advanced Scenarios
DITRA DALIGate RAIL can be used to manage luminaires via the DALI protocol. For creating interactive lighting scenarios, various sensors or discrete signals can be connected to the controller



DITRA ArchiCORE

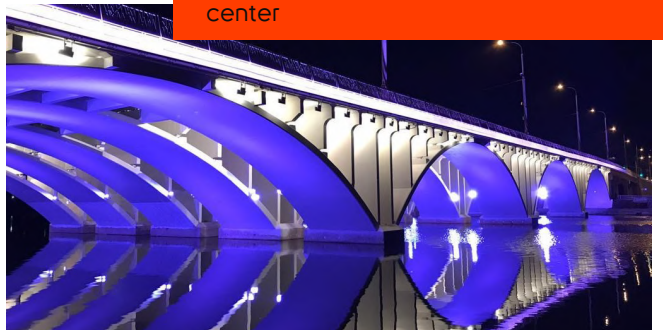
DITRA Splitter Duo SHIELD

DITRA RadioGate SHIELD

DITRA DALIGate RAIL

Creation of various dynamic lighting scenarios for building facades

Control over scenario changes and system monitoring from a central dispatch center



Smart Architectural Illumination by DITRA

FESTIVE LIGHTING

The **DITRA ArchiCORE Node** is designed for installation directly on lighting poles, enabling the creation and complete control of both static and dynamic lighting scenarios for outdoor environments

Key features:

Dynamic Lighting Control
Advanced DMX512 output allows to support up to 512 channels, ensuring precise control over lighting scenarios. RDM support and power compatibility 100-250 V AC serve for seamless communication with fixtures, adaptability and reliable control

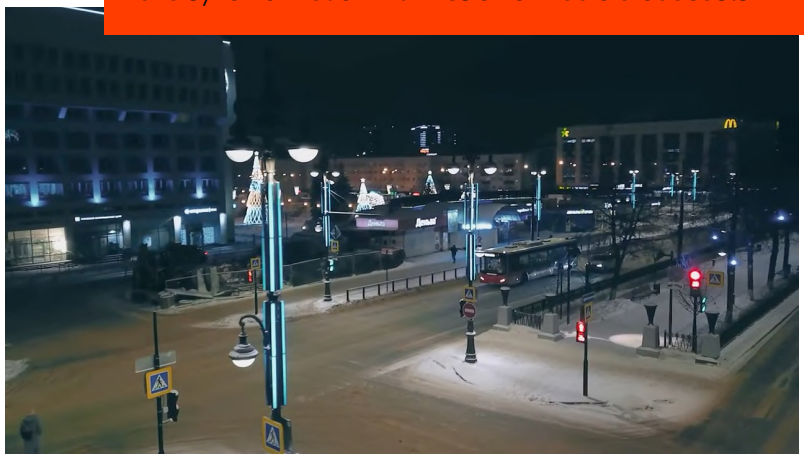
Remote Management
Direct connection to DITRA software via GSM allows flexible remote management

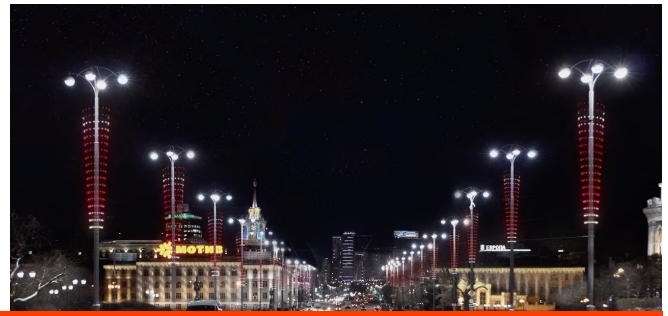
GPS Synchronization
A built-in GPS receiver ensures exceptional timing precision for accurate geo-positioning and clock adjustments. This guarantees synchronization across multiple devices, creating unified and perfectly coordinated lighting displays

Rugged Outdoor Design
Built to withstand challenging environments, the controller features an IP66-rated enclosure for full protection against dust and water. Its resilience to a wide temperature range makes it ideal for installation on streetlight poles or power cabinets in harsh outdoor conditions

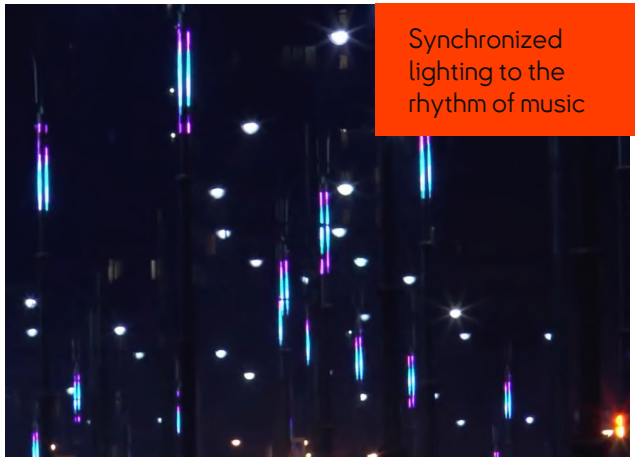
DITRA ArchiCORE Node

As part of the project, dynamic illumination was integrated into the Smart City platform, enabling remote scenario management, synchronized activation across poles, and synchronization with music from radio broadcasts





The control system adjusts decorative lighting to match holidays and events. Over 20 unique holiday scenarios and special weekend programs were designed

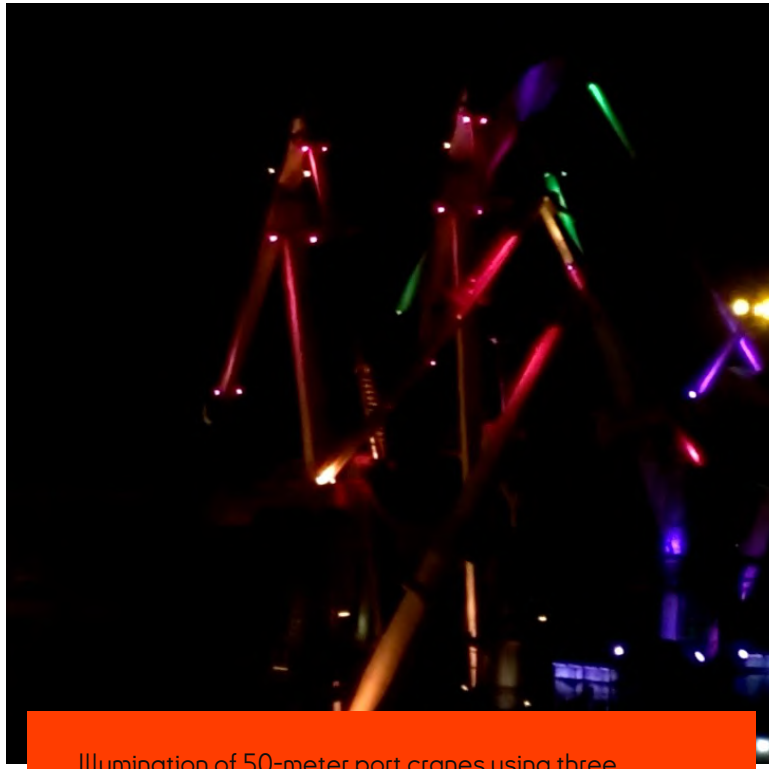


Synchronized lighting to the rhythm of music

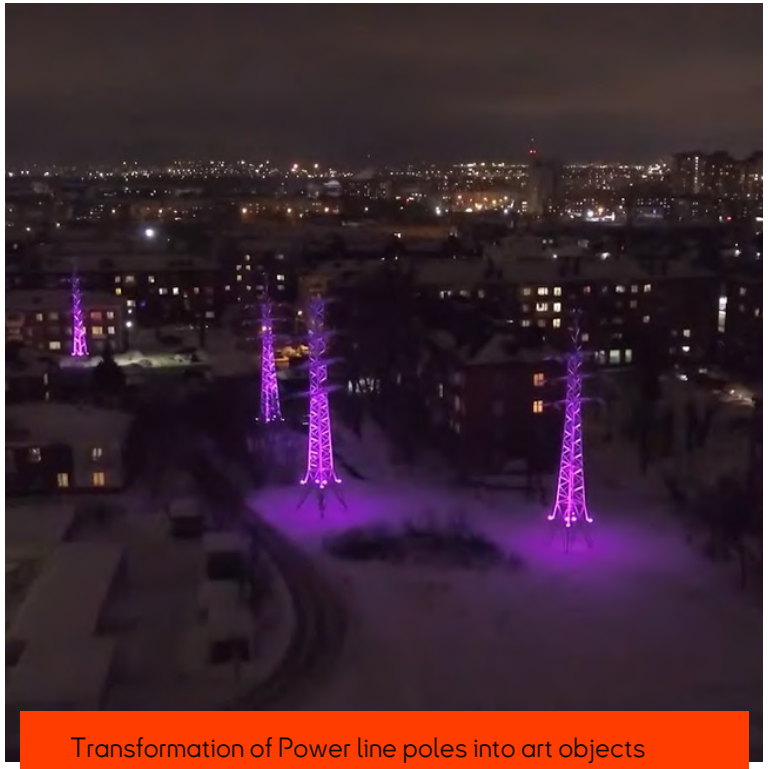
Smart Architectural Illumination by DITRA

ARCHITECTURAL FORMS LIGHTING

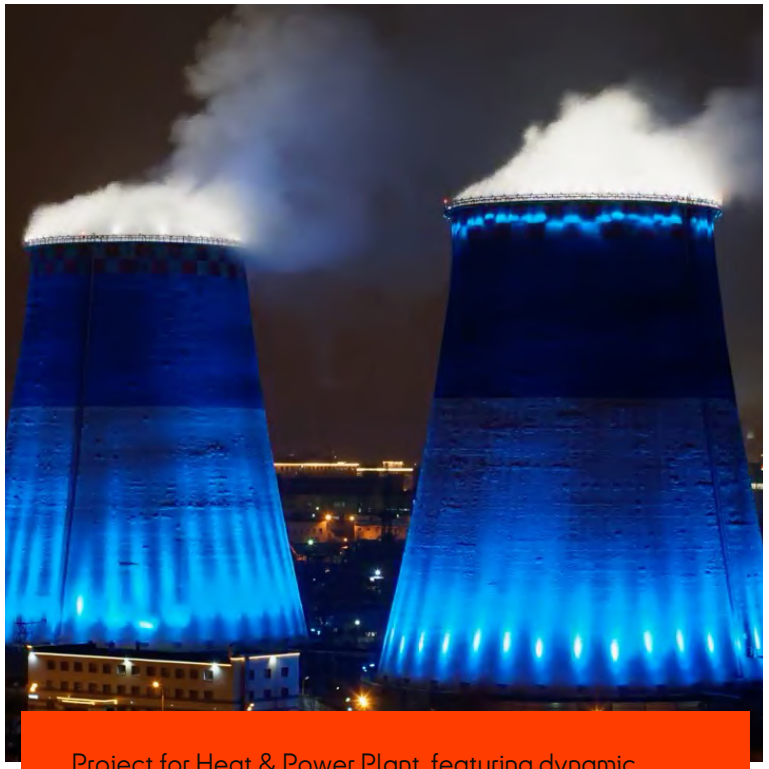
Designed to accentuate and enhance the unique features of a construction's structure, emphasizing its artistic and functional aspects. This type of lighting highlights the character and identity of architectural elements, creating a striking visual impact and adding depth to the urban landscape.



Illumination of 50-meter port cranes using three primary RGB colors, creating 65 shades across ten different operational scenarios



Transformation of Power line poles into art objects with a dynamic lighting system featuring various colors, creating a comfortable and unique nighttime atmosphere in the city



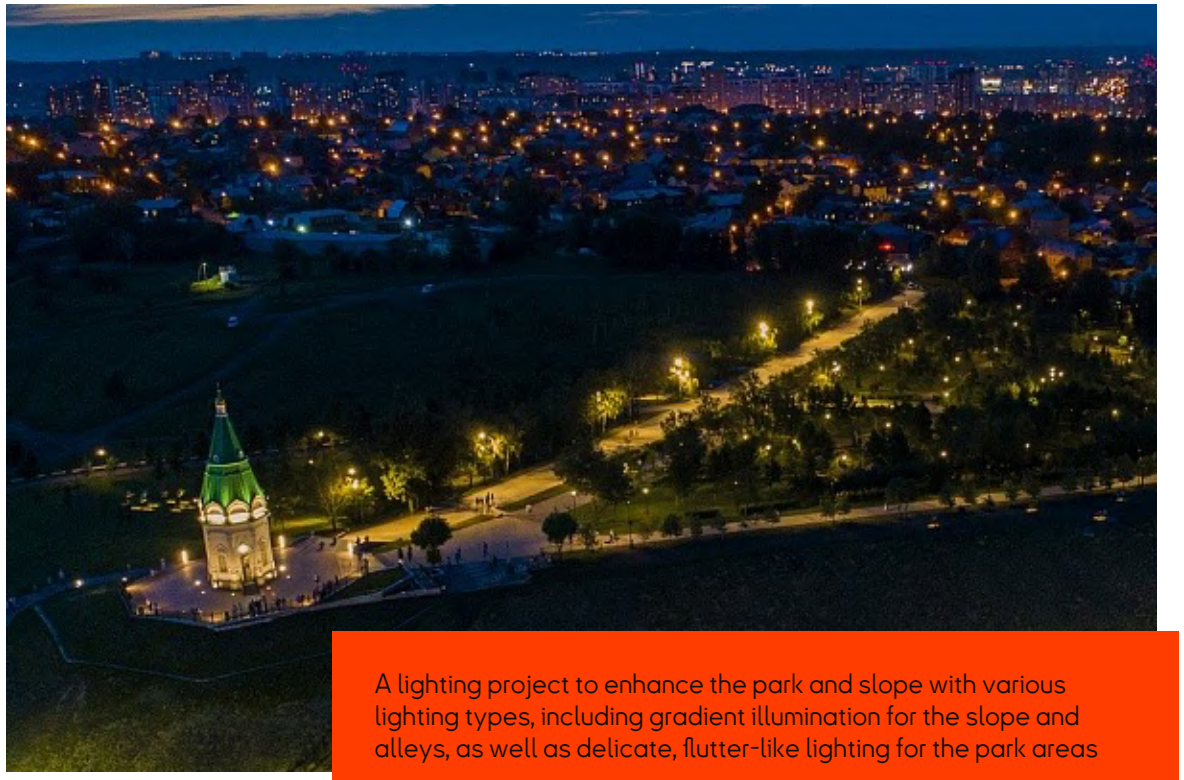
Project for Heat & Power Plant, featuring dynamic, layered architectural lighting for the cooling towers, enhancing their visibility and iconic status across the city

Smart Architectural Illumination by DITRA

LANDSCAPE LIGHTING

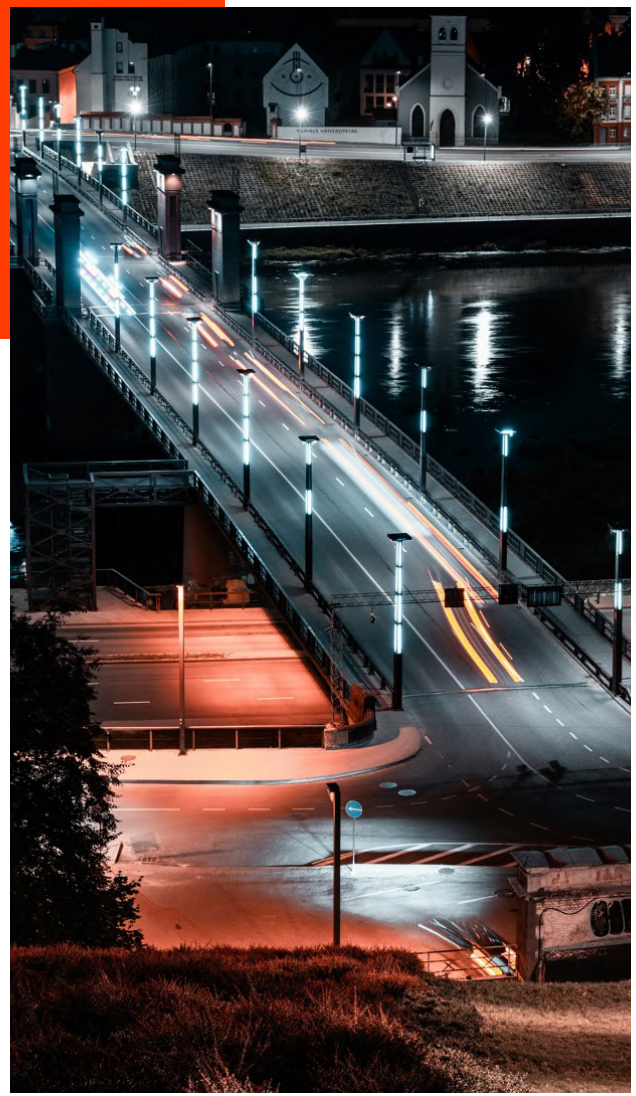
Landscape lighting is designed to enhance outdoor spaces by highlighting natural elements, pathways, and architectural features, creating a visually appealing and functional environment. This lighting solution adds depth, safety, and ambiance to gardens, parks, and public spaces, transforming them into inviting and well-lit areas

A landscape lighting project with dynamic, remotely controlled illumination was implemented in a protected forest park, enhancing its natural and cultural landmarks for visitors



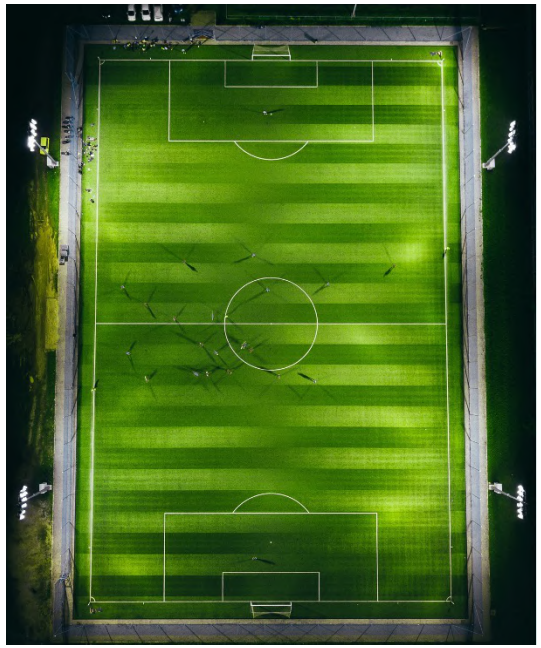
A lighting project to enhance the park and slope with various lighting types, including gradient illumination for the slope and alleys, as well as delicate, flutter-like lighting for the park areas

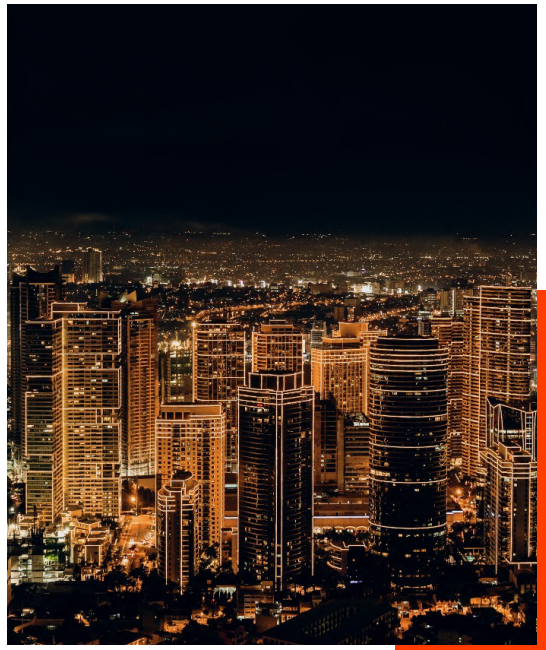
Ground-mounted LED fixtures were installed on the trees, and their operation is controlled by a centralized lighting management system, enabling various lighting scenarios for weekdays, weekends, and holidays



EQUIPMENT

State-of-the-art lighting control devices, ensuring seamless integration and reliable performance within a unified control system





CORE PRO CONTROLLER

For Static Architectural Illumination

CORE PRO

DITRA CORE PRO system controller with 4 relay outputs and built-in GSM/GPRS modem

The DITRA CORE PRO controller is designed for managing lighting and architectural decorative illumination. Its primary function is to enable remote control of starters and additional modules from the DITRA product line, as well as to transmit information to a unified dispatch center.

The equipment is installed on a DIN rail, either in control cabinets or in pre-existing cabinets.

CORE PRO-2

DITRA CORE PRO-2 system controller with 4 relay outputs, built-in GSM/3G/4G modem with GLONASS/GPS support, and Ethernet interface

Next generation of the DITRA CORE PRO module. Controller is equipped with a GSM/3G/4G modem and an Ethernet port.

Additionally, the DITRA CORE PRO 2 features a built-in GPS/GLONASS receiver module, providing precise geolocation and accurate time synchronization for correcting the built-in clock.

The equipment is installed on a DIN rail, either in control cabinets or in pre-existing cabinets.

ARCHICORE CONTROLLER

For RGB/RGBW Dynamic Architectural Illumination

ArchiCORE

Cabinet controller for architectural and artistic lighting of the DITRA system, featuring 4 relay outputs, built-in DMX512 ports, an integrated GSM/3G/4G modem with GLONASS/GPS support, and an Ethernet interface

Key features:

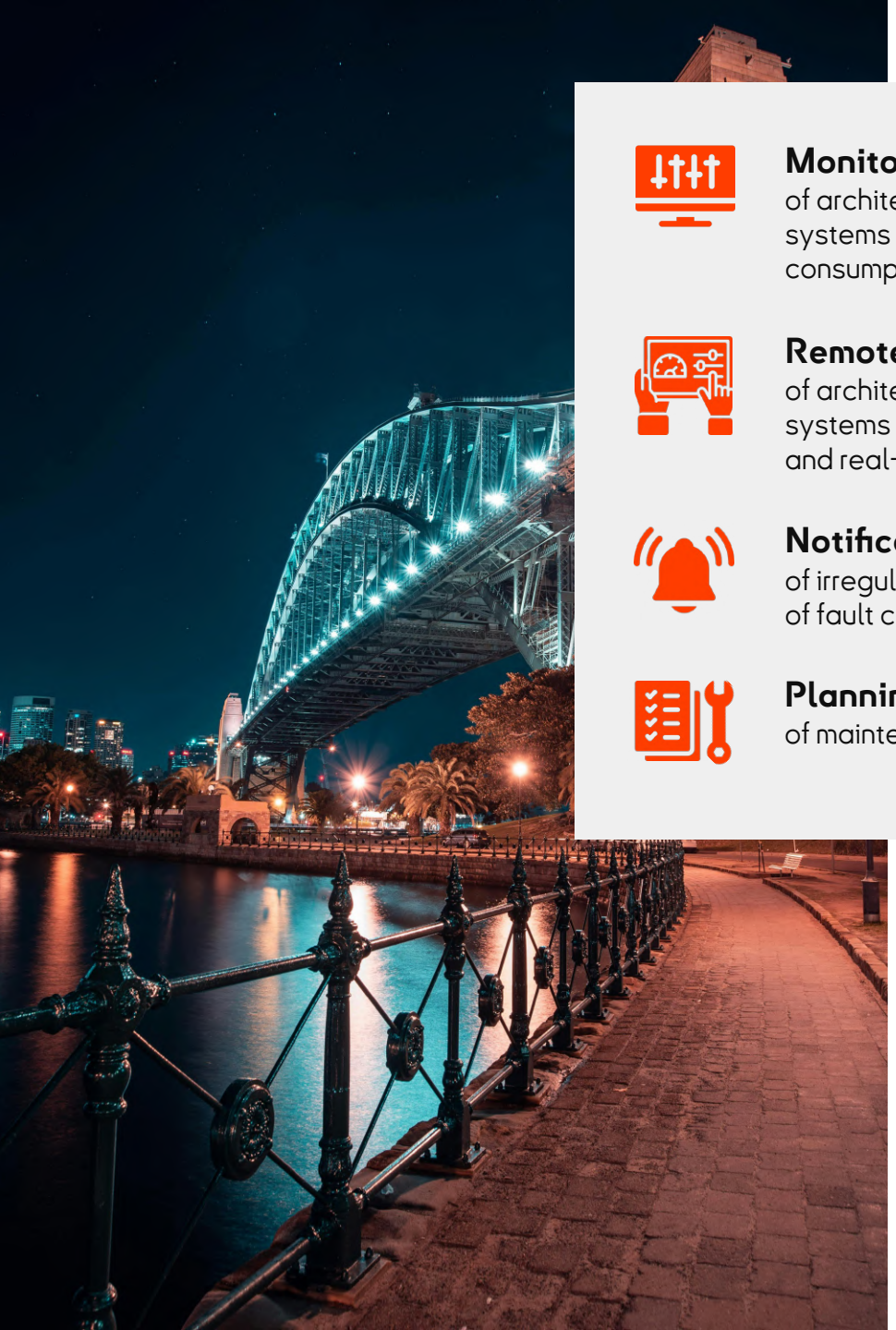
- Supports 2048 lighting channels with precision and simplicity
- Real-time dynamic scenario and setting adjustments
- RS-485 port for direct electric meter and sensor data access
- Proactive electrical fault detection for system reliability
- Surge-resistant with voltage resilience up to 305 V
- Non-volatile memory for critical configuration retention

ArchiCORE Node

A compact, sealed control node for architectural and artistic lighting of the DITRA system, featuring 1 relay output, 1 DMX512 port, an integrated GSM/GPRS/3G/4G modem, and a GLONASS/GPS module

Key features:

- Controls up to 512 channels for intricate lighting displays
- Creates and synchronizes personalized DMX scenarios effortlessly
- GPS-driven precision for device synchronization
- Remote configuration via 2G/3G/4G networks
- Non-volatile memory protects setups from power interruptions
- Handles electrical loads from 1-1000 W for versatile lighting designs



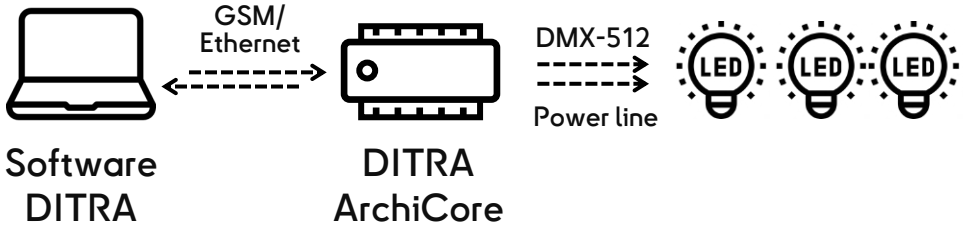
Monitoring and control
of architectural lighting systems and their energy consumption

Remote management
of architectural lighting systems with scheduling and real-time control

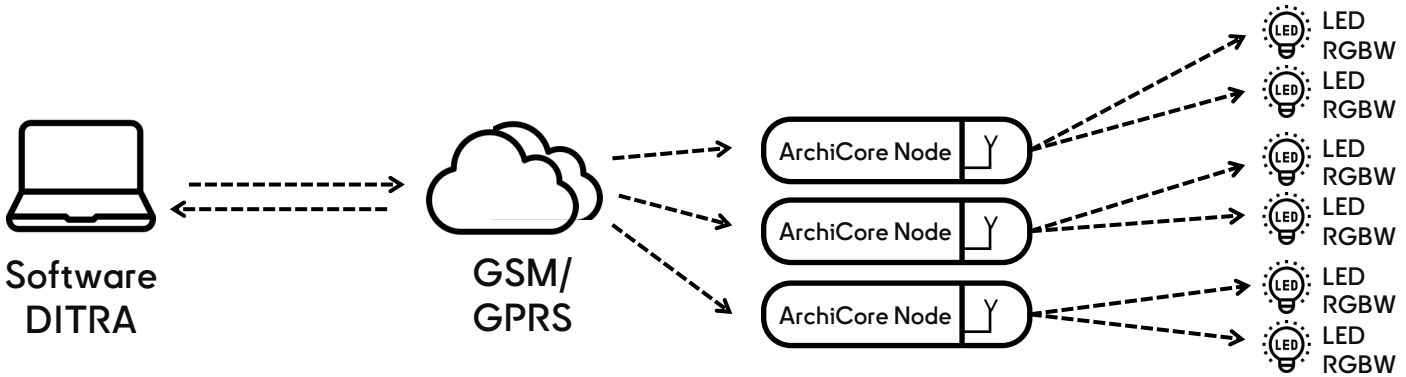
Notification
of irregularities and logging of fault causes

Planning and tracking
of maintenance activities

The structural diagram of DITRA ArchiCORE operation



The operating principle of DITRA ArchiCORE Node



ARCHICORE MEDIA CONTROLLER

For Media Facade Architectural Illumination

ArchiCORE MEDIA

Centrall controller with Media Playback Capability

Versatile central controller for managing architectural lighting and playing audio/video content. Designed for both functionality and durability, it offers extensive connectivity and control features in a robust aluminum housing with IP23 protection, suitable for outdoor use.

Key features:

Control and Connectivity:

- 4 outputs for independent lighting group control
- 7 inputs for acknowledgment signals
- Support for 2 DMX512 streams and up to 256 ArtNet streams
- Interfaces: RS-485 (MODBUS), CAN, and Ethernet (2 ports)
- Wireless communication via built-in GSM/3G/4G modem with dual SIM support
- GPS/GLONASS module for geolocation and precise timekeeping

Media and Storage

- HDMI, RCA outputs, and SD card support (up to 16 GB)
- Software integration with DITRA Scenario Module

Reliability and Power:

- Operates at 100-250V AC and remains functional up to 305V
- Built-in backup power supply
- Aluminum housing with permanent laser engraving

Installation and Maintenance:

- DIN-rail mounting (12 modules)
- Remote firmware updates

EXPANSION DEVICE

For Architectural Illumination

MultiCONNECT

Function expansion device for DITRA system controllers with 8 relay outputs and 16 digital inputs

The DITRA MultiCONNECT expansion device is designed to enhance the functionality of DITRA system controllers. Its primary purpose is to increase the number of acknowledgment points—up to 16 per device—detecting the presence of voltage on power lines, and to extend the number of relay outputs—up to 8 per device—to support additional control groups.

The equipment is installed on a DIN rail, either in control cabinets or in pre-existing cabinets. Device management and diagnostics are carried out through the central controller via the RS-485 interface.

CONVERTERS

For Architectural Illumination

DALIGate RAIL

DALI controller for managing endpoint devices via the DALI protocol with a built-in DALI driver

The DITRA DALIGate RAIL controller manages DALI-compatible luminaires for individual light control and status monitoring. It communicates with a DALI driver to transmit operational data to a unified dispatch center. Designed for DIN rail installation.

PowerGate SHIELD

Multifunctional converter for outdoor use with dust and moisture protection for transmitting DMX streams via 100-250V power lines and Ethernet

Intelligent PWRDMX/Ethernet/DMX protocol converter featuring merging, data redundancy, and efficient DMX512-based lighting equipment management.

Housed in a durable, IP65-rated dust- and moisture-protected aluminum enclosure.

SPLITTERS

For Architectural Illumination

Splitter Duo SHIELD

Two-channel DMX512 signal splitter in weatherproof outdoor design with RDM support

Serves as a two-channel DMX512 interface splitter, offering an efficient solution for managing lighting equipment using the DMX512 standard. Features a durable IP65-rated aluminum enclosure for all-weather outdoor and indoor use.

Splitter Duo RAIL

Two-channel DMX512 signal splitter for DIN rail mounting with RDM support

Serves as a two-channel DMX512 interface splitter, providing an efficient solution for controlling DMX512-compatible lighting equipment.

Designed for DIN rail mounting, the device operates reliably in both positive and negative temperatures, making it suitable for indoor and covered site installations.

WIRELESS TRANSCIEVERS

For Architectural Illumination

RadioGate SHIELD

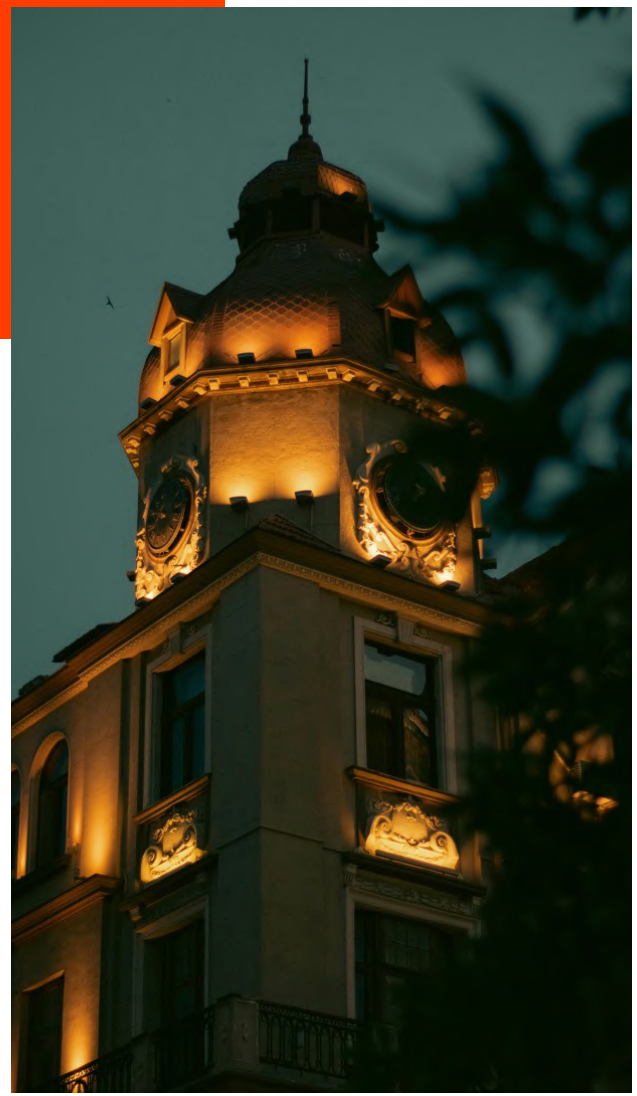
Wireless transceiver with dust and moisture protection for DMX stream transmission via 2.4 GHz radio channel

Uses the “beDMX” standard for DMX512 lighting control. Offers a range of up to 300m with a standard antenna or 1500m with specialized antennas. Configuration is performed via buttons on the device’s housing. Features a durable IP65-rated aluminum enclosure for all-weather outdoor and indoor use.

RadioGate Plus SHIELD

Multifunctional wireless transceiver for DMX stream transmission via 2.4 GHz radio channel with Ethernet support

Serves as an intelligent beDMX/Ethernet/DMX converter with merging capabilities, enabling wireless data transmission using the “beDMX” standard. Provides an efficient solution for managing DMX512-based lighting equipment. Features a durable IP65-rated aluminum enclosure for all-weather outdoor and indoor use.



SOFTWARE

A set of smart software solutions for optimal efficiency and flexibility

DITRA Light Studios

for Architectural Lighting

Create | Configure | Control

LightForm Studio

LightForm Studio is advanced lighting design software for creating, configuring, and managing dynamic architectural lighting. With a built-in visualizer, DMX script support, and seamless DITRA hardware integration, it ensures real-time control and flawless execution, turning creative visions into stunning masterpieces

LightMedia Studio

A versatile software solution for multimedia playback and synchronized lighting control. Designed for Windows, it enables seamless video and audio streaming, network-based transmission via ArtNet, and synchronized execution of lighting scenarios. LightMedia Studio supports both scheduled and real-time dispatcher commands, providing powerful tools for complex multimedia and lighting integration

DITRA

SOLUTIONS

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