

HDL[®]

CASE STUDIES

Automation
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Smarter





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HDL®

Since 1985 HDL has been dedicated to the development of cutting edge automation solutions.

Our product range encompasses both wired and wireless systems, enabling users to create a solution which truly works for them.

From features to appearance all of our solutions are fully customizable, and can be integrated into any building with ease.

Our comprehensive and innovative product range is driven by the desire to create solutions which enable building operators to optimize their energy efficiency, while increasing their convenience, comfort, and security.

At HDL we realize that economic and environmental balance is essential, that's why a HDL automation solution is more than a product, it's an investment in the future.

To find out more, please visit:
www.hdlautomation.com

Case Studies

HDL has provided automation solutions to home owners, hotel operators, and building managers around the world.

On the following pages you will find some of our latest projects from the residential, commercial, and hospitality sectors. .

Automation
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CASE STUDIES





01

Residential

HDL automation solutions have been integrated into countless residences all over the world.

From apartments to mansions, and historic buildings to new developments, HDL has provided custom automation installations to meet the exact requirements of our clients.

With a remote, local, or fully automatic home management capacity, HDL can enable a home to actively look after its occupants.

A HDL home automation system means more than automatic control, energy efficiency, convenience, and security though.

It's the home of tomorrow today.





A Modern Chalet

— Nore Neset, Norway

Used as a holiday home for ski and hiking enthusiasts, the owners of this chalet wanted to maximize their building's energy efficiency and provide visitors with a truly unique experience.

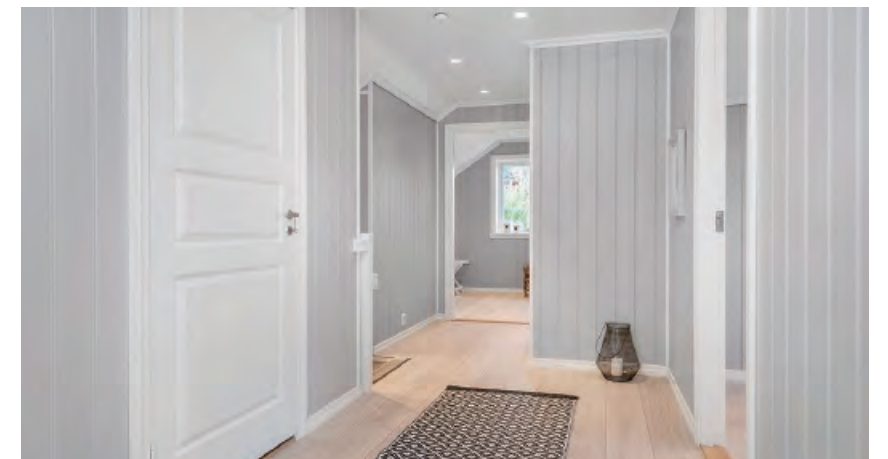
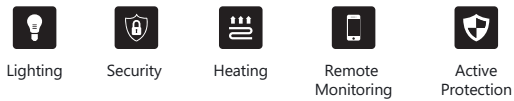
Each of the building's 11 rooms were fully automated by the HDL team, so that visitors could control each room's lighting, curtains, and heating from a single point.

As the building is often vacant during the summer months, HDL technicians also created presence simulation and frost protection scenes.

Enabling the chalet to actively protect itself, these scenes can be triggered automatically or remotely from the owner's iOS and Android devices.

This ensures that when there are no visitors for a week, a month, or even a year, the building will remain exactly as it was left.

buspro





A Timeless Time Share

- Sanya, China

This jointly owned timeshare located in what many consider to be the Hawaii of China, was fully automated so that both owners could accurately control their energy usage and customize their environment.

With precise energy monitoring made possible through the HDL On app, energy consumption can be accurately recorded and inefficient appliances identified.

In addition to energy monitoring, the timeshare also boasts fully automated lighting and shading in all of its five rooms.

This allows each owner to create five personal preprogrammed scenes, which adjust each room's lighting intensity and color palate to their specific liking.

Able to be changed with a simple button press, these scenes allow instant customization so that even in a shared building each owner can feel relaxed, comfortable, and truly at home.

buspro



Lighting



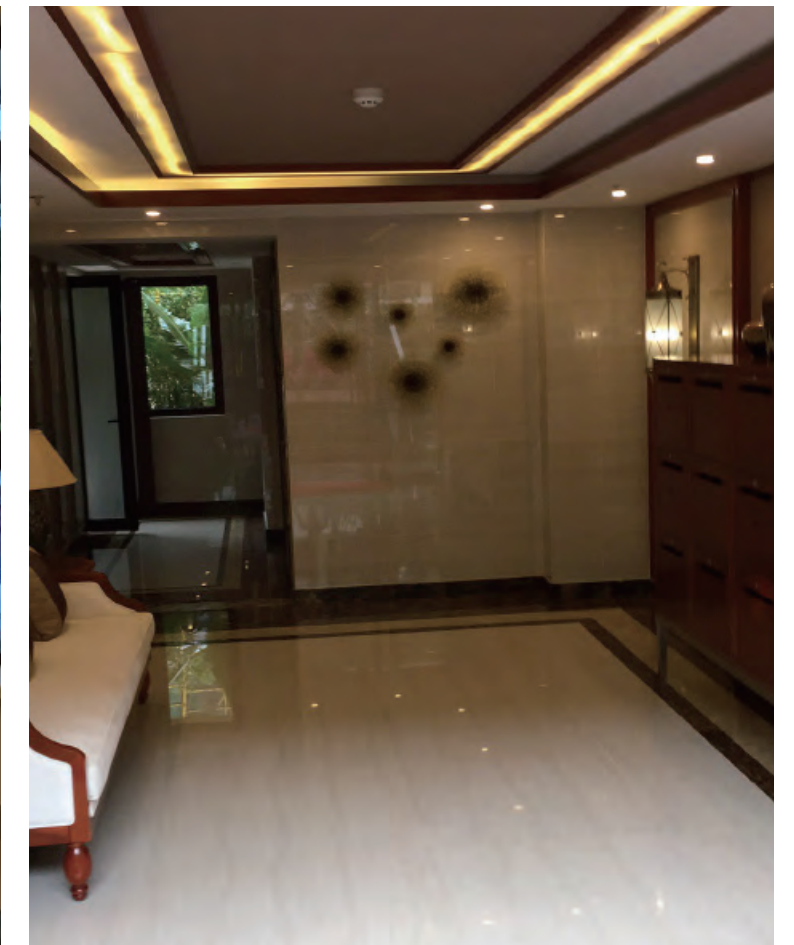
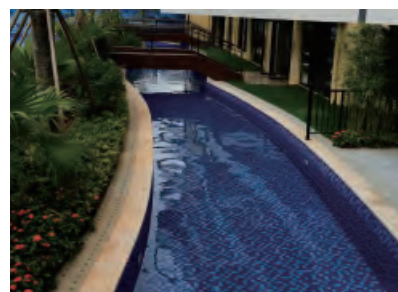
Shading



Heating



Remote Monitoring





An Ecuadorian Bauhaus

— Quito, Ecuador

Covering an area of some 750 square meters, this two story family home has been fully upgraded with HDL automation solutions so that the occupants can take advantage of unparalleled comfort, convenience, and security.

Although the home has been fully automated, the HDL installers took great pains to ensure that the building's minimalist design aesthetic was respected.

This meant that instead of using a control panel for a single function, each installed HDL DLP panel was used to control a room's lighting, HVAC, audio, shading, and connected appliances.

With the automation system completely hidden from view, and with no visible sensors or control modules, this installation is more than meets the eye.

buspro



Lighting



Shading



Heating



Audio



Irrigation



Remote Monitoring



Active Protection



Energy Monitoring



Home Cinema





Tradition Meets Technology

— Saint Petersburg, Russia

Built in the traditional Izba wooden home style, this unique Russian family home seamlessly combines the technology of the past and the present.

Made almost entirely of renewably sourced pine, being environmentally responsible was an ever present consideration for the owner.

This high regard for the environment was the deciding factor which led the home to be fully automated.

With the entire building's shading, heating, and lighting system managed by the HDL Buspro system, energy resources are only expended when absolutely necessary.

Enabled through a complex network of sensors, lighting is automatically activated and deactivated, HVAC is precisely controlled for peak efficiency, and appliances are automatically turned off when a room is unoccupied.

buspro



Lighting



Shading



Heating



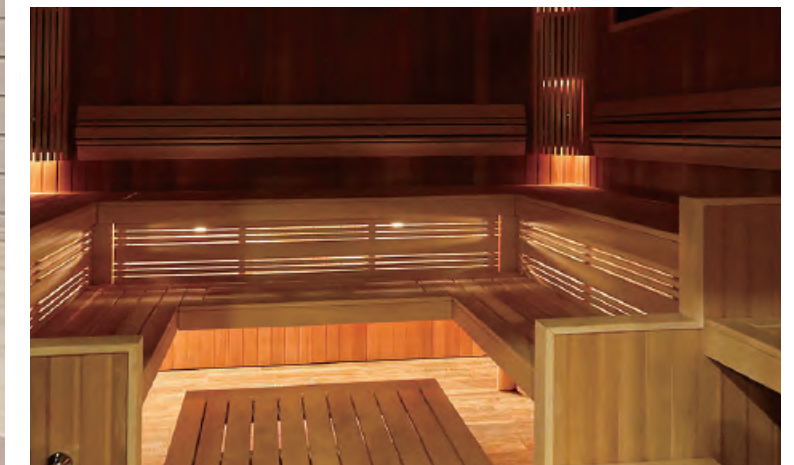
Remote Monitoring



Active Protection



Energy Monitoring





A Cypriot Dream House

— Polis, Cyprus

As a modern interpretation of a classical Cypriot villa, the owner of this five bedroom family home spared no expense in creating their ideal living space.

With an uncompromising attention to detail, and a unique design aesthetic, the owner of this beautiful home decided to not only fully automate the inside of the villa but also the outside.

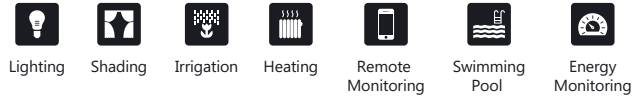
As part of the external automation installation, the garden's lighting, audio, irrigation, and swimming pool were all fully integrated into the villa's Buspro system.

This enables the owner to literally have the entirety of their home run autonomously, with systems activating automatically when an occupant enters a room or area.

One of the most unusual features of this installation was the swimming pool. Using the HDL On app, the owner can not only control the pool's lighting, temperature, and cleaning schedule, but open and close the pool's cover.

With the Buspro system unifying both the internal and external elements of the home, a truly unified automation solution has been created.

buspro





Norwegian Passive House

— Oslo, Norway

Designed to consume at least 80% less energy for heating and cooling than a conventional home, a Passive House is the pinnacle of residential energy efficiency.

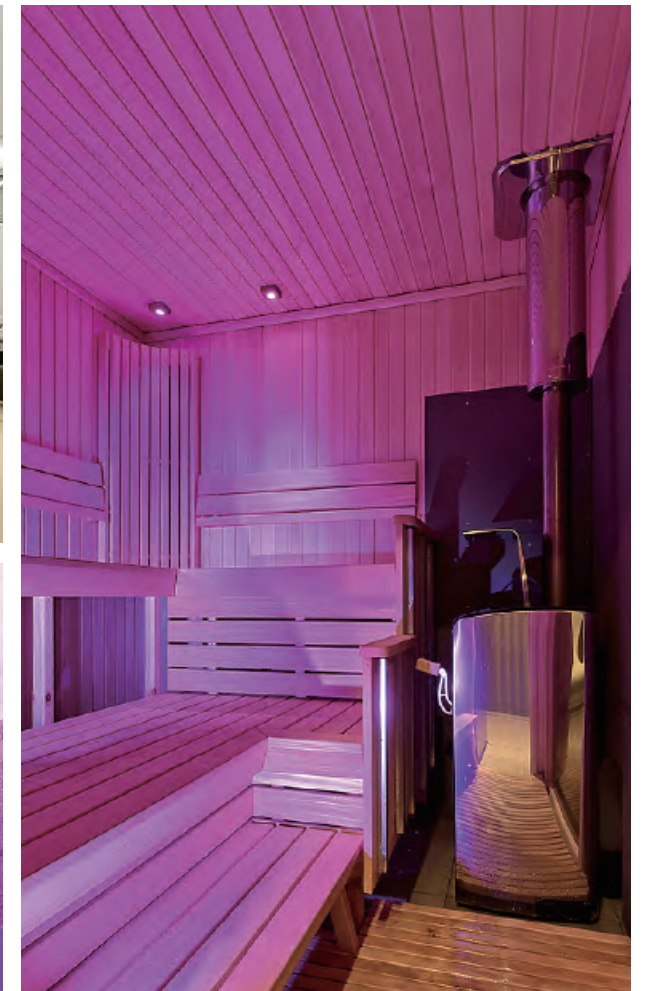
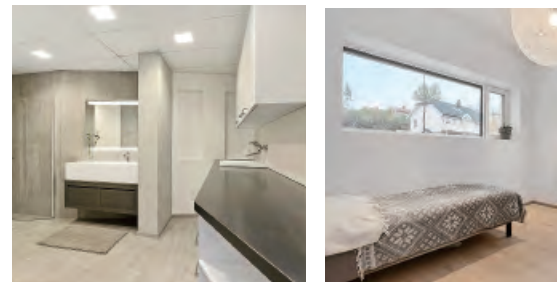
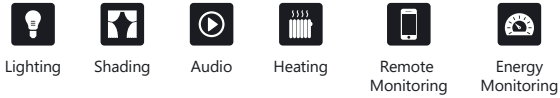
With the building already super insulated, and practically airtight, the owner of this passive house decided to further reduce their carbon footprint by automating their shading, ventilation, heating, and lighting systems.

Thanks to the Buspro system precisely controlling the home's energy expenditure, the home's operational costs have been reduced, and the family can now monitor exactly how they are consuming their energy resources.

In addition to minimizing energy usage, the Buspro system was programmed to take advantage of external environmental conditions to maximize efficiency.

From blinds automatically descending when a room reaches its optimum temperature in summer, to the HVAC system circulating air to eliminate cold spots, HDL has empowered the home to become as energy efficient as possible.

buspro





Luxury in the Levant

— Tel Aviv, Israel

This recently built six bedroom family home in the coastal city of Tel Aviv, provides its owners with a tranquil oasis in which they can relax and unwind.

Coming complete with a swimming pool, home gym, home cinema, library, study, rec room and large garage, the owners were looking to simplify their lighting and appliance control.

Using the HDL Buspro platform 90 lighting loads were automated, along with the building's HVAC system, shading, and home cinema setup.

Able to be controlled through the HDL On app that runs on four dedicated iPads, or one of the HDL DLP panels located in each room, the home owners can know at a glance exactly what systems are active and adjust them instantly.

For maximum convenience the home cinema was incorporated into the movie scene, so that with a single button press the projector screen lowers, the projector is turned on, the lighting is dimmed, and the curtains are drawn.

Perfect for creating the ideal ambiance for a movie, the home owners need only sit back and enjoy.

buspro



Lighting



Shading



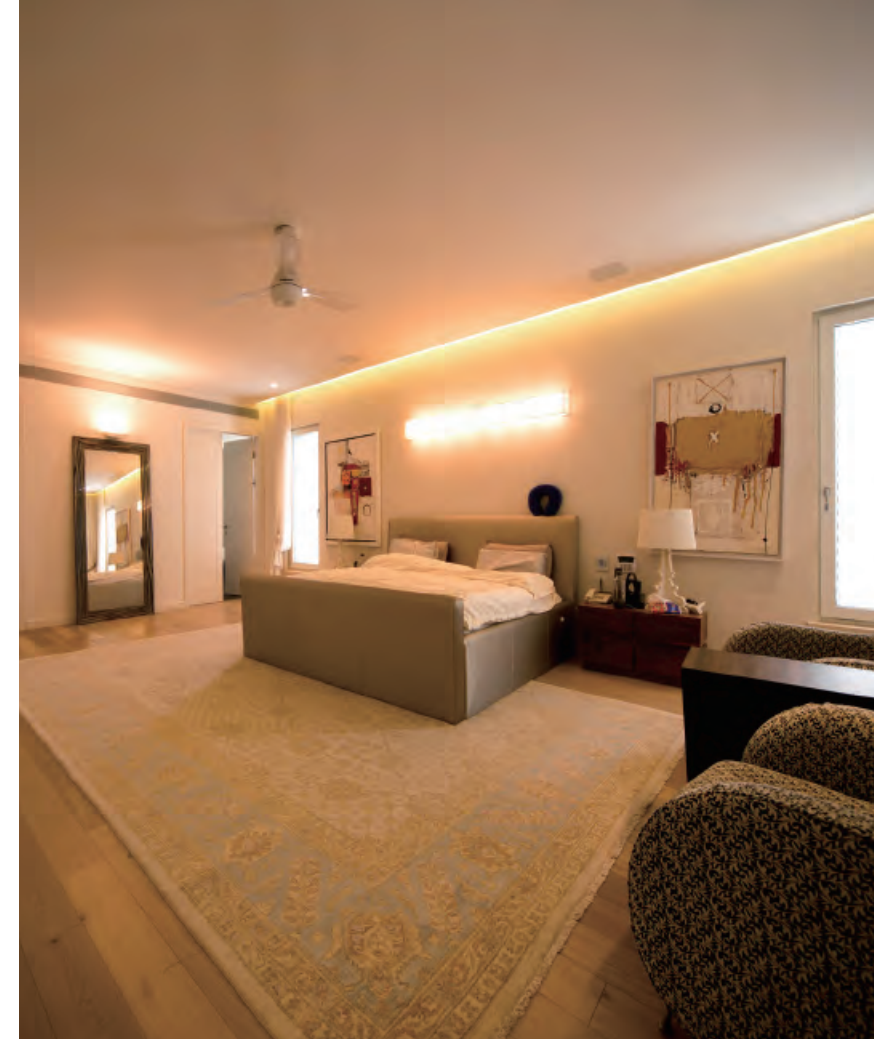
HVAC



Remote Monitoring



Home Cinema





A Home Fit for a Sheikh

– Dubai, United Arab Emirates

Dubai may be home to some of the most luxurious buildings in the world, but this HDL empowered home stands apart from the crowd.

Carefully crafted using only the finest materials, this stately home mixes the essence of French rococo design with Arabian sensibilities for an unparalleled living space.

With 12 bedrooms this sizable property would have been difficult to manage even with a full complement of staff.

Privacy is paramount to the home owner though, so they turned to HDL to see how automation could streamline the running of their newly built home.

Using simple, intuitive, and discreet interfaces the homeowner is now able to control every element within their home.

From the entire internal and external lighting system, to the security cameras, the owner not only has maximum control, but maximum privacy.

buspro



Lighting



Shading



HVAC



Remote Monitoring



Home Cinema





02

Commercial

Businesses of all types are driven to become more efficient, competitive, and cost effective.

HDL can provide business owners and building managers a tailored automation solution which will not only improve a building's operational efficiency, but make it easier to control and monitor.

Able to incorporate a wide array of third party systems and products, a HDL commercial solution can provide one touch control over lighting, HVAC, audio, security, and shading.

Simple to operate, with no complex training required, authorized personnel are able to control every aspect of a building's environment instantly.





Dubai International Airport

- Dubai, United Arab Emirates

Airports demand rock solid systems which are utterly reliable and dependable.

That's why HDL automation solutions were selected to be installed into the baggage handling area, CCTV monitoring office, and the meeting rooms in terminals one, two, and three of Dubai International Airport.

Delivering full lighting control, HDL engineers installed a host of dimmers, Dali modules, and DMX scene controllers to meet the exacting requirements set forth by the project management company.

To control the newly installed system, the Dubai airport team selected the HDL DLP touch panel, as it provided;

"Simple navigation, the ability to set customized levels, and a fitting design aesthetic."



Lighting





Jiangsu Center for the Performing Arts

— Jiangsu, China

The performing arts are an elemental part of any countries' culture, representing the intangible aspects of dance, music, opera, and theatre.

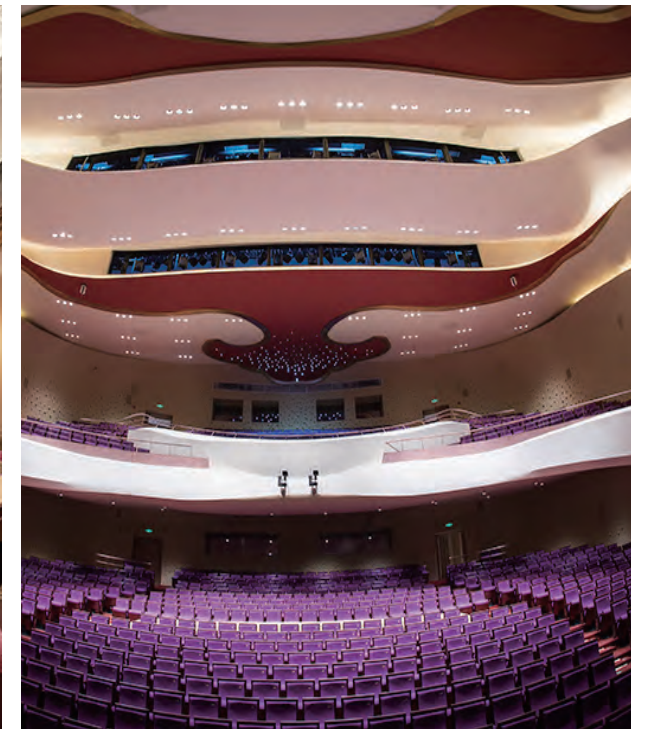
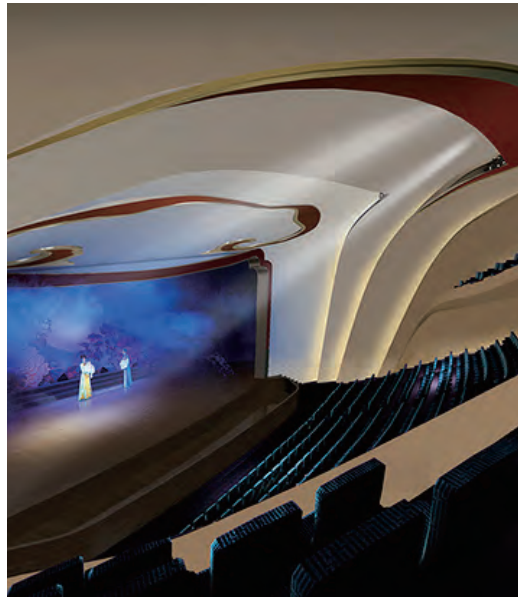
To develop and highlight the performing arts in Jiangsu province, the local government recently completed the Jiangsu Center for the Performing Arts.

Designed to provide the best possible environment to performers and audiences alike, the center has HDL lighting automation solutions installed into its 2,700 seat Arts Hall, its 780 seat International Lecture Hall, and its 375 seat Multi-function Hall.

Able to be independently controlled via multiple DLP panels, or centrally controlled by the hall manager, the light scape of each area can be custom crafted to meet the needs of each performance.



Lighting





Ningxia International Hall

— Yinchuan, China

Combining a unique mix of modern Chinese and classical Islamic architecture, the Ningxia International Hall stands as a testament to the close cooperation between China and the United Arab Emirates.

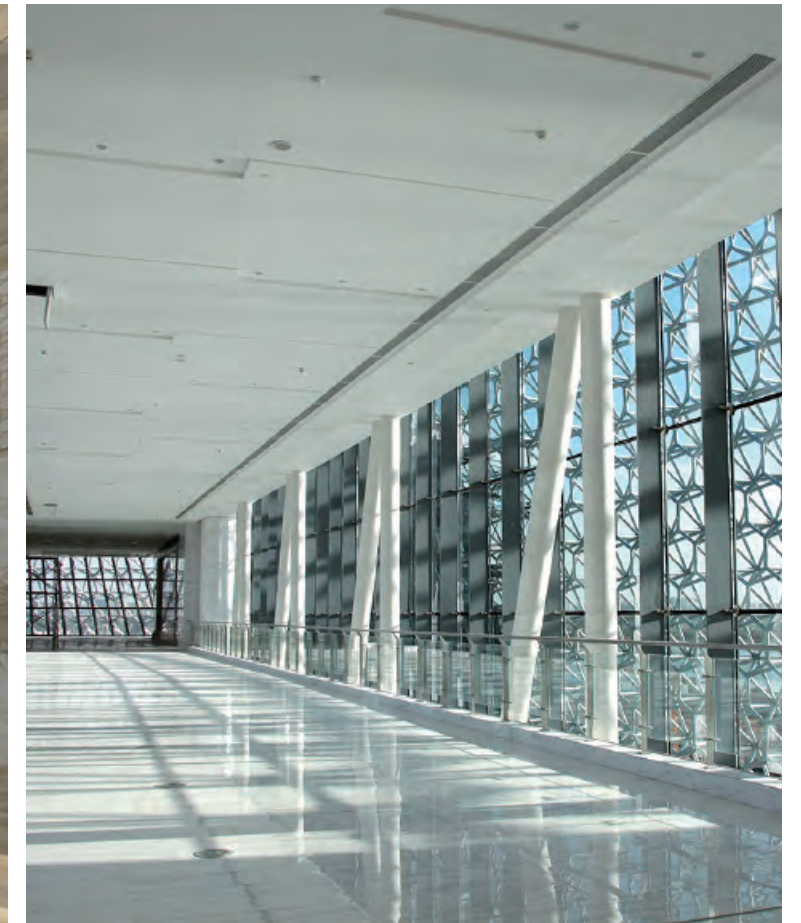
Covering an area of 77,600 square meters, International Hall complex has had its lighting fully automated by HDL.

Designed to reduce management complexity, and eliminate unnecessary energy expenditure, the entirety of the lighting installation can be centrally controlled, locally controlled, or operate automatically thanks to presence detection sensors.

The Ningxia International Hall is not only a monument to cross cultural communication, but energy efficiency and environmental responsibility.



Lighting





Kloster Heidberg

— Ostbelgien, Belgium

Known as the number one seminar and events center in East-Belgium, Kloster Heidberg effortlessly mixes 21st century technology with 18th century architecture.

Dedicated to comfort, elegance, and hospitality, the decommissioned church recently underwent a full refurbishment program which saw the building's entire electrical system upgraded using HDL KNX automation solutions.

As part of the upgrade HDL installed on demand lighting, automatic HVAC management, and zoned audio control.

To control the HDL KNX system, a 10 inch wall mounted control panel was fitted to give staff a powerful centralized management solution.

A special consideration during the project was that the newly installed solutions had to use existing conduit and tracks, so that the building's stone work was undisturbed.

The outcome of this was the HDL KNX system became completely camouflaged, with the installed solutions being invisible to the untrained eye.



Lighting



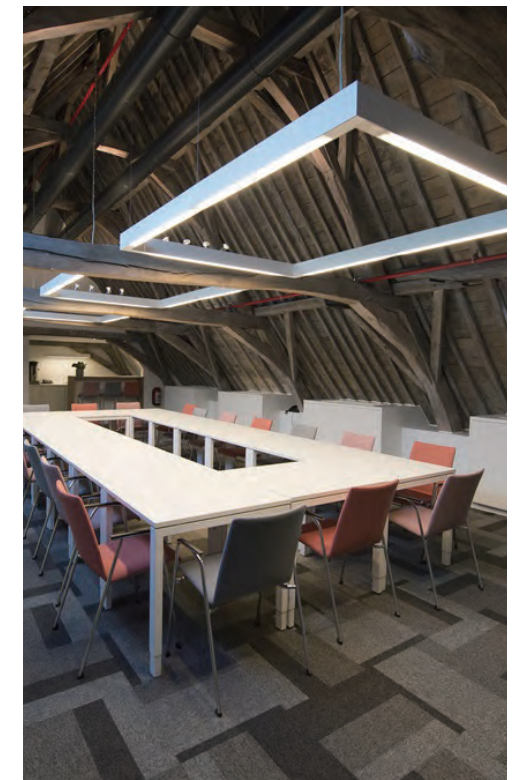
HVAC



Audio



Security





NATO Headquarters

— Brussels, Belgium

The recently completed NATO Headquarters reflects the unity and adaptability of the North Atlantic Treaty Organization.

With state of the art facilities covering an area of some 250,000 m², the building will meet the Alliance's evolving needs long into the future, while its forward-looking design delivers a sustainable building that significantly reduces the organization's environmental footprint.

This commitment to energy efficiency is reinforced by the use of HDL KNX solutions, which are designed to reduce energy usage by activating lighting on an on-demand basis only.

Jo Palma, the project's lead architect, stated that the environment and sustainability were among the most important considerations in the design of the building.

"Energy consumption will be reduced thanks to the use of geothermal heating in the winter and cooling in the summer, and the use of advanced lighting systems."



Lighting





Cubix Office

— New Delhi, India

This award winning office was created so that the Cubix real estate consultancy firm could enjoy a fluid form space, which stimulated creativity and out of the box thinking.





Designed by Spaces Architects@ka, the building covers an area of only 96 square meters, yet it manages to pack in a reception, meeting room, individual workstations, service area, and two private offices.

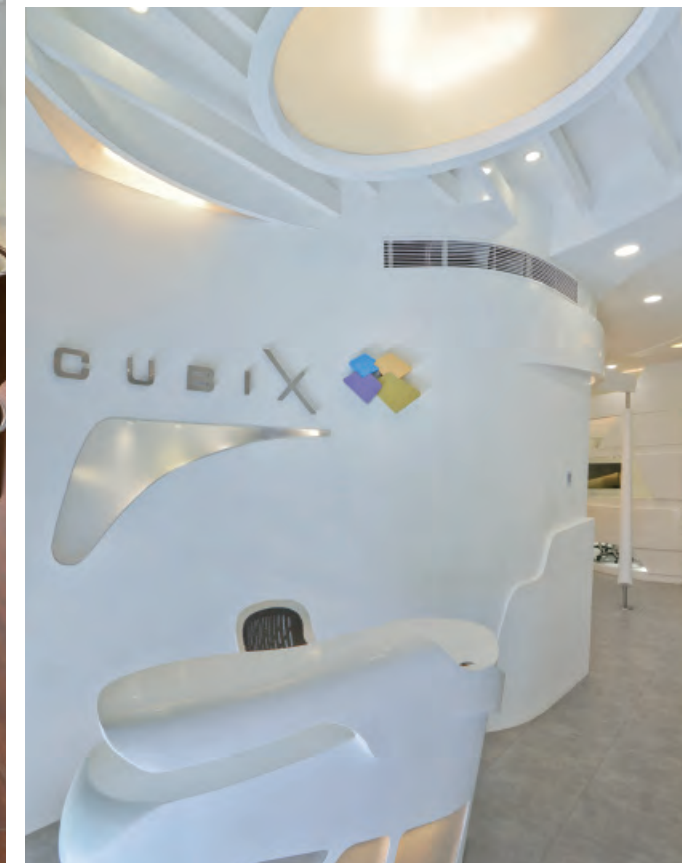
To avoid the office feeling cramped, Spaces Architects@ka sought to create a free flowing interior space which gave a sense of transition and movement.

Critical to the design of the office was the use of illumination. With different colors and lighting intensities being used to identify separate areas, and guide visitors through the main corridor.

With intelligent HDL lighting control, the building's lighting system works in harmony with the designer's vision to create a one of a kind office environment.



-  Lighting
-  HVAC
-  Audio
-  Centralized Control





Neshat Clinic

— Khoozestan, Iran

Healthcare settings require their systems to be reliable, efficient, and simple to use.

That's why the managers of the newly built Neshat Clinic in Iran's Khoozestan province selected HDL lighting, HVAC, and security solutions.

With all of the clinic's major systems controlled via HDL Buspro, many of the installed HDL modules were able to fulfill two separate roles.

This dual functionality is exemplified by the sensors being used for both lighting activation, and presence detection to enhance the clinic's security.

To control their HDL automation solution, the operators of the clinic selected the Touch DLP panel.

This decision was made because the seamless glass finish would be simple to clean, and its large LCD screen would allow a user to instantly recognize and control a room's illumination and temperature.

buspro



Lighting



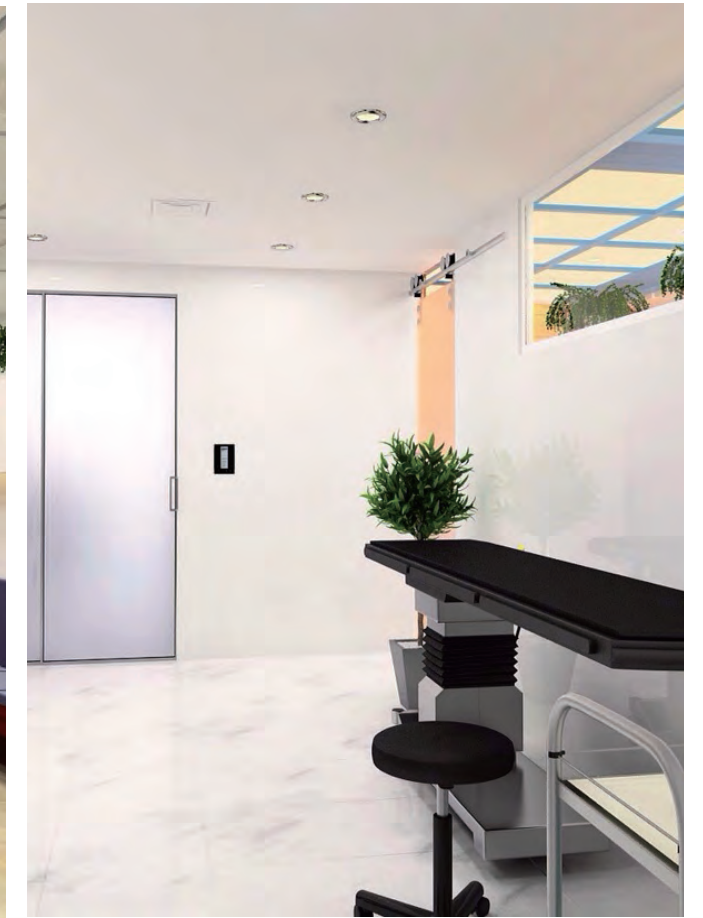
HVAC



Security



Centralized Control





Australian Institute of Architects

— Melbourne, Australia

Located in the center of Melbourne's bustling CBD, the Australian Institute of Architects (AIA) building known as 41X was developed to accommodate the AIA headquarters.

The stunning 22 story tower is the first commercial office building in Melbourne to target carbon neutrality over its planned 30 year lifespan, and the first building in Australia to abide to a "Sustainability Charter". This charter mandates the use of 100 percent green power, and minimum commitments to carbon offsetting through the Australian Carbon Trust.

These green credentials are further reinforced through 41X achieving a Five Star Australian Excellence Green Star rating.

This environmental responsibility was achieved jointly through an ecofriendly design, and the integration of countless HDL KNX DALI gateways, relay modules, motion sensors, and switches.

Used to control the entirety of the building's lighting system, the HDL KNX system ensures that lighting is only used only when absolutely necessary. To control the lighting intensity and further increase system efficiency, ambient light sensors control dimming levels to create an optimized visual experience.



Lighting





03

Hospitality

Guest satisfaction is an integral element of the hospitality industry.

To ensure that hotels, restaurants, bars and resorts provide their clientele with the very highest levels of comfort, service, and convenience possible HDL has developed a unique line of hospitality solutions.

These solutions ensure energy resources are used on an on-demand basis, and that each guest has an unrivaled experience.

HDL is committed to delivering those in the hospitality industry a holistic automation platform which actively increases efficiency, whilst reducing running costs and environmental impact.





Katana Japanese Robata Grill

– Dubai, United Arab Emirates

Situated in Downtown Dubai, with views overlooking the Burj Khalifa's fountains, the Katana expertly blends sleek Japanese tradition and modern fare into an unforgettable dining experience.

Dining is about more than food however, it's a complete sensory experience.

Recognizing this the operators requested that the restaurant be fully equipped with HDL HVAC, lighting, and audio control, so that the ambiance of the restaurant could be precisely controlled.

Through fusing the lighting, audio, and air-conditioning controls, with the push of a button any member of staff can create the perfect atmosphere for multiple occasions instantly.

This ensures that the guest experience is truly optimized, and the Katana stays a cut above the competition.

buspro



Lighting



HVAC



Audio





The Savoy Grill

— London, Great Britain

The Michelin starred Savoy Grill is one of England's most famous restaurants. Playing host to the likes of Winston Churchill, James Dean, Marilyn Monroe, and the British royal family, the Grill is the very definition of 'gourmet glamour.'

During the Savoy's recent £220-million refit, the Grill was restored to its former glory with an array of shimmering chandeliers, precious woods, burnished mirrors and white-clothed tables.

As part of this refit, it was decided that as the Savoy was the first hotel to use electrical lighting, it was fitting that the Grill should benefit from the very latest automation technology.

Encompassing chandeliers, wall-lights, cove lights, table lamps, waiter-stations, bar illumination, and lighting the premium wine display cupboard, the entirety of the Grill's lighting system was automated by HDL.

HDL's Buspro system now allows central control over all the lighting channels, and custom lighting scenes for lunch, pre and post theatre dinners, weddings, Christmas, and New Year's Eve.

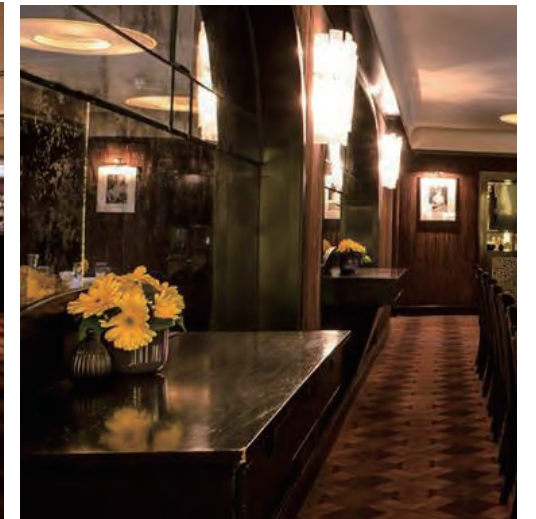
buspro



Lighting



Centralized Control





MYR Plaza Mercado Hotel

- Valencia, Spain

Located in the heart of Valencia the boutique MYR Plaza Mercado Hotel offers guests 25 dreamy suites, a restaurant, a spa, and a fitness center.

For maximum opulence and energy efficiency, all of the 25 suites have been fully automated with HDL solutions, as well as all of the hotel's public areas.

This means that from a bedside DLP panel a guest can open their curtains, adjust their thermostat, dim the room's lights, and turn appliances on and off.

In the hotel's public areas, constant illumination technology allows a comfortable lighting level to always be kept day or night.

If an area is left unoccupied, sensors register the room as being empty and the lighting, HVAC, and audio systems are automatically deactivated. As soon as a presence is detected, all the systems resume their previous usage states.

This allows the hotel staff to concentrate on what really matters, the hotel's guests.

buspro



Lighting



Audio



Centralized Control



Constant Illumination





Arora Intercontinental

— London, Great Britain

Situated a stone's throw away from the O2 Arena in the Greenwich Peninsula, and overlooking the River Thames with Canary Wharf in the background, the Arora Intercontinental provides guests with prime central London luxury accommodation.

Each of the hotel's 450 rooms were fully upgraded with HDL KNX lighting solutions, and customized HDL switches & panels for effortless illumination control.

To further increase guest room efficiency and comfort, HDL unified each room's power management and interfaced it with the door access system.

This combination allows the room's appliances and amenities to be deactivated when the room is vacant, and reactivate when the room is occupied.

This seamless energy saving guest experience enables comfort to remain uncompromised, while delivering a massive reduction in energy consumption.

buspro



Lighting



Centralized Control



Automation
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CASE STUDIES



Hilton Foshan

— Foshan, China

The Foshan Hilton is different to many hospitality projects, as HDL was involved during the pre-design stage of the hotel.

This enabled the client's requirements, and the technological capability of the products to be harmonized so an ideal automation solution could be created.

Consisting of a banquet hall, six multifunctional meeting rooms, five bars, and five restaurants, the Hilton Foshan placed specific focus on how the lighting in these public areas was controlled.

Project installation areas also included lighting control for the first and second floors, the exterior of the building, and the hotel's garden area.

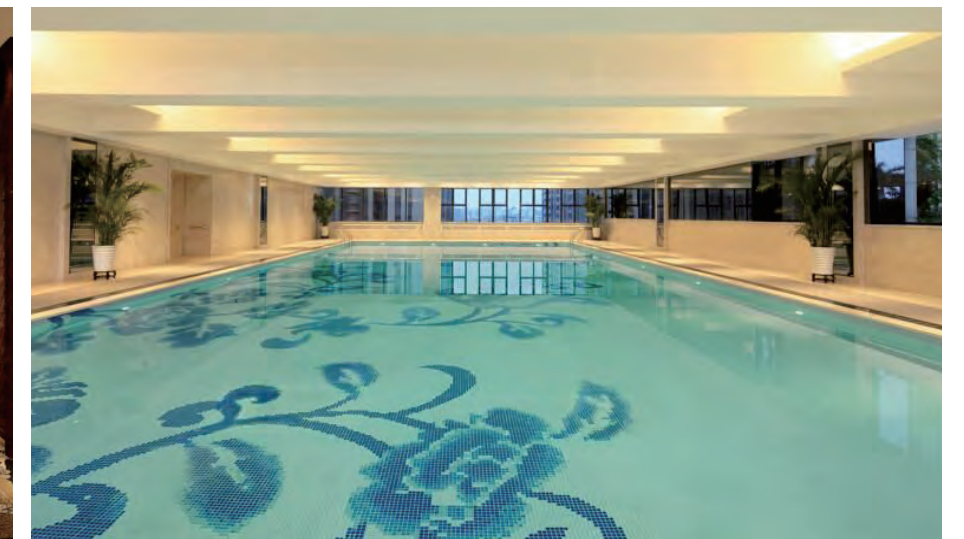
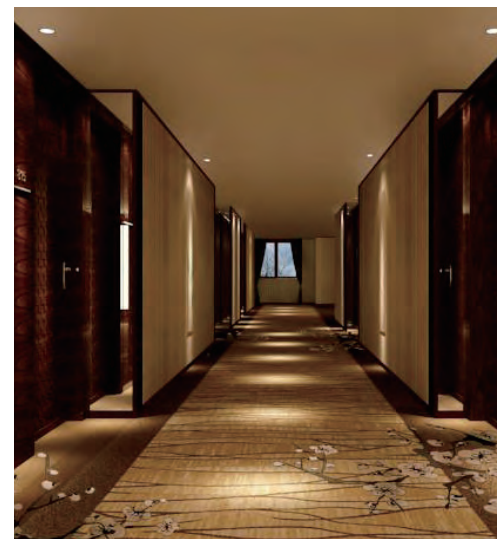
All the lighting in the project was requested to be dimmable with the only exception being the exterior building illumination.

Managed via the HDL iLife app, the lighting in all public areas can be centrally controlled so that management can reduce staff workload and increase energy efficiency.

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Lighting



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CASE STUDIES



The Grand Ho Tram Strip

— Ho Chi Minh City, Vietnam

The Grand Ho Tram Strip is one of the largest hotels in Vietnam.

With 541 luxury guest rooms and suites, a 2,200 square-meter conference and convention center, six restaurants, a lavish spa, two night clubs, a cinema, and a 18-hole golf course, the Grand Ho is more a luxury travel destination than a hotel.

Running such a large scale building effectively using traditional switches and distribution boxes would be a next to impossible task.

Because of this the management team for the Grand Ho Tram opted to install full HDL lighting and HVAC automation solutions into each of the guest rooms, and integrate the external lighting for the complex into a single HDL controlled platform.

Enabling guests and staff alike convenient and effortless control, these dual HDL installations ensure energy efficiency and maximize manageability.

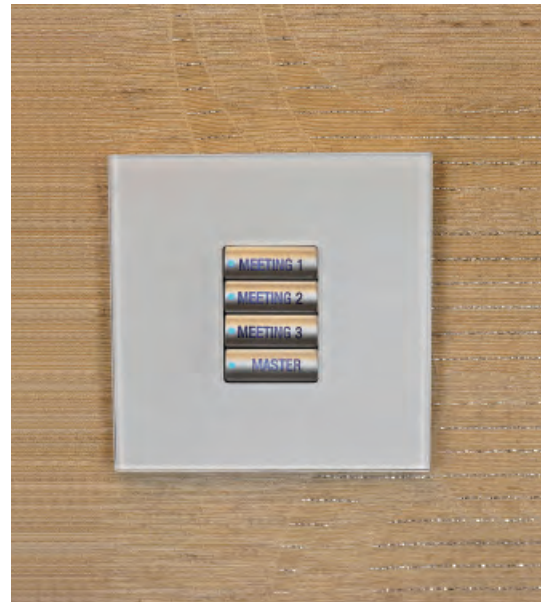
buspro



Lighting



HVAC





Radisson Blu Dwarka

— Dwarka, India

Blending Eastern and Western design, the Radisson Blu Dwarka creates a subtle internationalism which enables guests from any part of the world to feel secure, comfortable, and relaxed.

Throughout the hotel the use of marble, silks, and chandeliers evoke the lost luxury of the Maharajas, while contemporary styling and technology puts the hotel unequivocally in the 21st century.

Accent lighting is used heavily in the hotel to highlight architectural focal points, and compliment the interior décor.

Controlled by a HDL Buspro solution, the entire public lighting system has been fully automated so that public spaces have a constant illumination level regardless of external ambient light conditions.

In addition to public lighting, each of the hotel's 220 rooms have HDL DLP panels installed which provide guests with heating, ventilation, air-conditioner, lighting, and appliance control.

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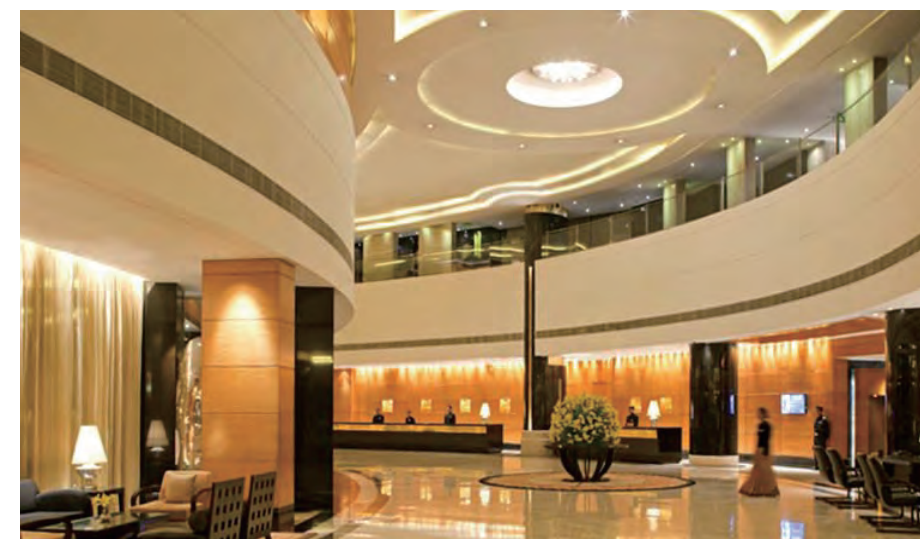
Lighting



HVAC



Shading



Automation
Made
Smarter

CASE STUDIES



Sofitel Tour Blanche

— Casablanca, Morocco

Located in the heart of the business district, the Sofitel Casablanca exudes Moroccan spirit and French elegance.

Towering over the city the 24 stories of the hotel encompass 141 rooms, 30 suites, a bar, a restaurant, a gym, an art gallery, and a business center.

A particular specialty of the Tour Blanche is the interior decoration of the guest rooms and public spaces. Designed by the renowned Marc Hetrich and Nicolas Adnet, the building:

“Offers a certain vision of elegance, a cultured respect to history, and a hunger for new technology and culture which transcends all barriers.”

This desire for new technology saw HDL lighting solutions installed throughout the hotel. In guest rooms and public spaces alike, the designers worked with HDL to provide each space an individual lighting texture and color palate.

buspro



Lighting



HVAC

