# Excellum2

## The effortlessness of light control

ETAP
tomorrow's light

# Excellum2: The effortlessness of light control

The Excellum2 light control system allows your lighting installation to perform optimally. You can control individual or groups of luminaires in zones. The system dims and switches the lighting on and off in accordance with preconfigured settings.

## CUSTOM-MADE SYSTEM

All of Excellum2's intelligence is housed in a discreet and stylish small controller. We always deliver Excellum2 ready for use in your building. You choose which functionalities you need, we supply the relevant software. This makes Excellum2 suitable for all types of projects, from medium-sized spaces to large buildings with several floors.

## ADVANTAGES

Excellum2 will add significant value to your lighting installation and your building, as it is based on three principles:
- Ease of use and management
- Maximum energy savings: the light only switches on when necessary and dims whenever possible
- Maximum flexibility: you can always adjust the light to your preferences
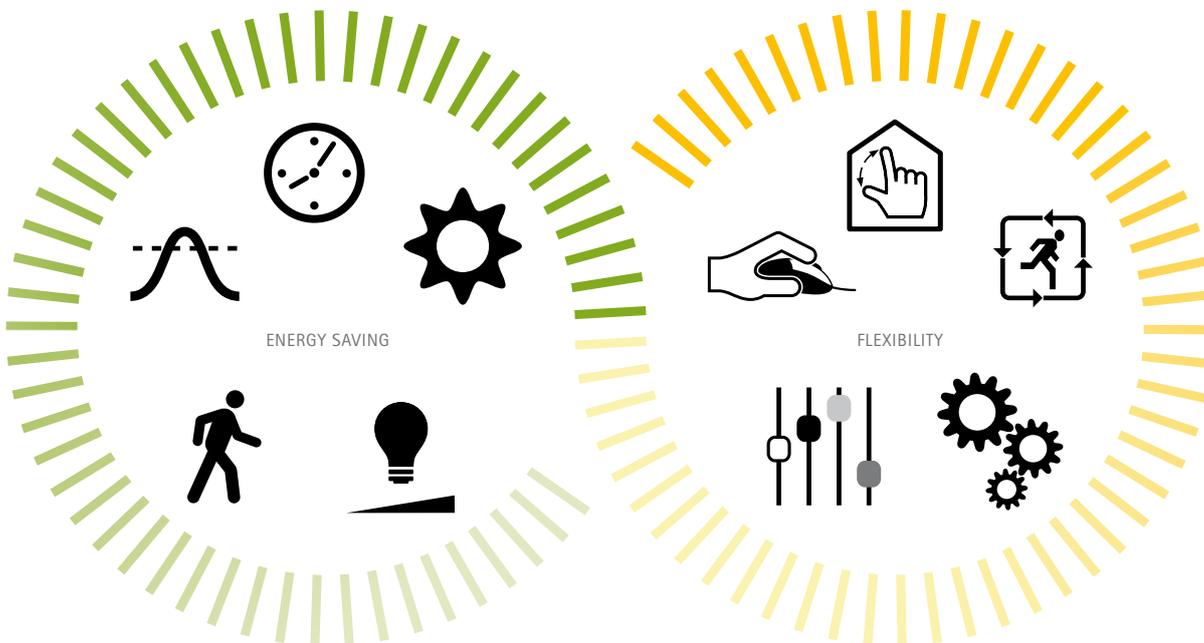
*Excellum2 makes light control easy and intuitive, for managers as well as users.*

## EASE OF USE AND MANAGEMENT

The system is user-friendly for **facility managers**: you determine the various illuminances in the various spaces; as well as the various scenarios; time settings, etc. It is easy to manage all parameters on a PC, on an internal network or the Internet. Therefore you do not have to be present in the building to manage your lighting installation. The interface is based on the building's blueprints, so that you can check the status of the luminaires and other components in the various zones at a glance. You do not have to be a computer wizard to adjust the settings. For example, you can assign sensors to a zone. Adjustments to calendar control are no more difficult than the management of an Outlook calendar.

A simple interface with a limited number of functionalities will delight **users**. They can set the desired lighting level on a touchscreen or call up preconfigured scenarios, which can be done on a PC, tablet or smartphone.

ENERGY SAVING

FLEXIBILITY

## ENERGY SAVING

The most energy-efficient lighting is lighting that is switched off. Excellum2 only switches the light on when and where necessary and dims the light or switches it off whenever possible. To do so the system uses five strategies: daylight harvesting, occupancy detection, smart time control, adjustment to task and limitation of peak load. Thanks to a smart combination of these strategies you can save up to 75% energy. As a matter of fact, Excellum2 will keep you apprised of actual savings at all times: an energy meter in the controller measures actual consumption.

## FLEXIBILITY

Excellum2 adjusts the lighting based on your preferences and needs, providing you with the right light at the right time in the right place. Whenever these preferences change, the lighting can be adjusted without major alterations. These strategies result in your lighting installation being flexible in time and space: integration with other technologies, evolving with the building, personal control and scenario-setting.

# Strategies for intelligent light control

## Energy saving

With a combination of several strategies Excellum2 saves energy whenever and wherever possible. Savings can add up to no less than 75%, depending on the project.



*Excellum2 dims artificial light depending on incident daylight.*

### ☀ DAYLIGHT HARVESTING

Daylight sensors constantly measure the amount of light on the work surface. As more daylight is evident, less artificial light is needed to achieve the desired illuminance. The sensors communicate with the controller, which dims the luminaires to the correct level. Excellum2 allows you to configure the sensors precisely, allowing you to use all of the options. For example, luminaires in windowed areas are dimmed deeper since more daylight is received in these zones. When daylight increases, dimming takes place gradually, thus not inconveniencing users.



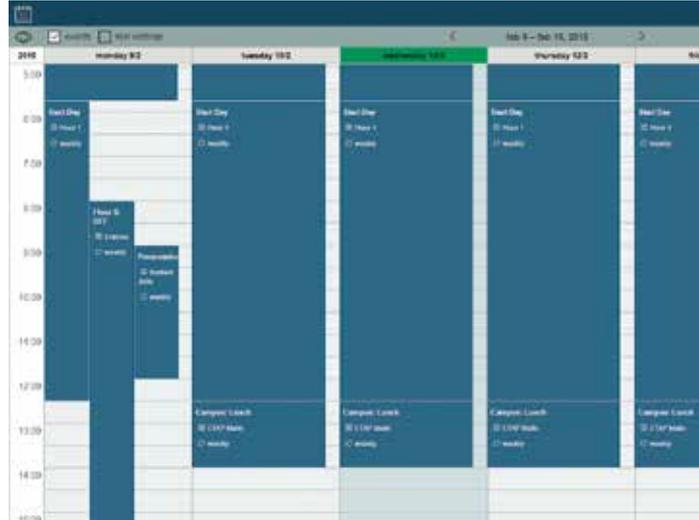*Occupancy detection: the light is only switched on once motion is detected.*

### 🚶 OCCUPANCY DETECTION

Occupancy sensors detect motion and communicate it to the controller, which switches on the luminaire or group of luminaires. If no motion is detected, Excellum2 switches off the lighting. For comfort or safety you can also opt to dim the lights instead of switching them off completely. It is also possible to switch on the lighting in the immediate vicinity of the person in attendance and to leave the luminaires dimmed in a wider perimeter, in order to prevent someone having to work at an illuminated desk in an office that is otherwise pitch dark.

### INTELLIGENT TIME CONTROL

With the Excellum2 calendar function you can determine the light schedule in a building on a daily and hourly basis. You determine when the lighting has to be switched on/off or dimmed in specific spaces. Public holidays, leave periods or days with longer or shorter working hours: they can all be planned in advance. In this way, no one has to remember to switch off the lights in the evening: Excellum2 does it for you.



*With Excellum2's calendar function you can create lighting schedules from day to day.*

### ADJUSTMENT TO THE TASK

Not all tasks require the same illuminance. You will prevent overdimensioning of your lighting installation by lowering the illuminance for tasks where less light is required – for example, photocopy rooms or archives. You can determine these settings using Excellum2, and readjust them later whenever the tasks carried out in a specific room change.



*You can prevent waste of energy by providing the correct illuminance for each task.*

### LIMITATION OF PEAK LOADS

Energy suppliers often charge penalties when an agreed maximum consumption is exceeded in a building. Building management can also request to limit peak loads, thus preventing overburdening. Excellum2 ensures that only the lighting that is needed is active, so that the peak power will also drop and exceedance peaks will occur less frequently.



*Excellum2 helps you to avoid exceeding maximum consumption.*

## Flexibility

Excellum2 makes your lighting installation flexible over time and space, making sure that you always have the right light at the right time in the right place.

**INTEGRATION WITH OTHER TECHNOLOGIES**

Excellum2 communicates through DALI, a standard protocol in the world of lighting. This offers a wide range of options: you are not tied to a single supplier for the choice of luminaires and components. In addition, Excellum2 can be integrated into a building management system. This allows to have Excellum2 components (such as motion sensors) not only control lighting, but also air-conditioning, ventilation and heating. On the other hand, you can have another building management system communicate with your lighting installation.

*Excellum2 is able to communicate with other systems, such as air conditioning and heating.*

## EVOLVING WITH THE BUILDING

A building or work space is no static data. An office may be converted into an archive room. An open-plan office may be split into individual offices – or vice versa. You will often have to adjust the lighting to these changes. With Excellum2 this is possible without major structural alterations: you do not have to add or remove luminaires; no cables have to be pulled through dividing walls. By assigning luminaires and/or sensors to other zones (with the drag and drop function) you can adjust their settings to the new circumstances.
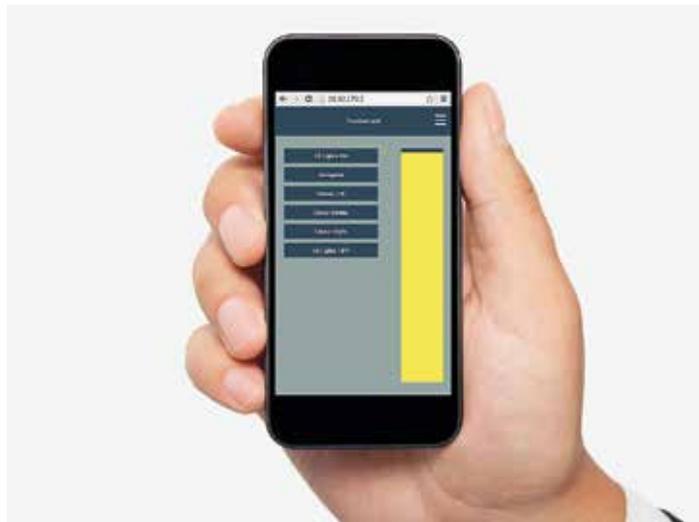


*With Excellum2 you can adjust the lighting to changes in purpose within a building.*

## PERSONAL CONTROL

With Excellum2 every user can adjust the lighting in their workstation to their own preferences. Through a simple and intuitive interface they can switch the lights on or off, dim them or call up specific precon-figured scenarios. This personal control can be tailored to individual needs. An individual can be authorised to control a single luminaire, a group of luminaires or an entire space, on PC, tablet or smartphone. This personal control always takes precedence over other, pre-programmed settings such as calendar control.



*Everyone can adjust the lighting to their own preference using a simple interface.*
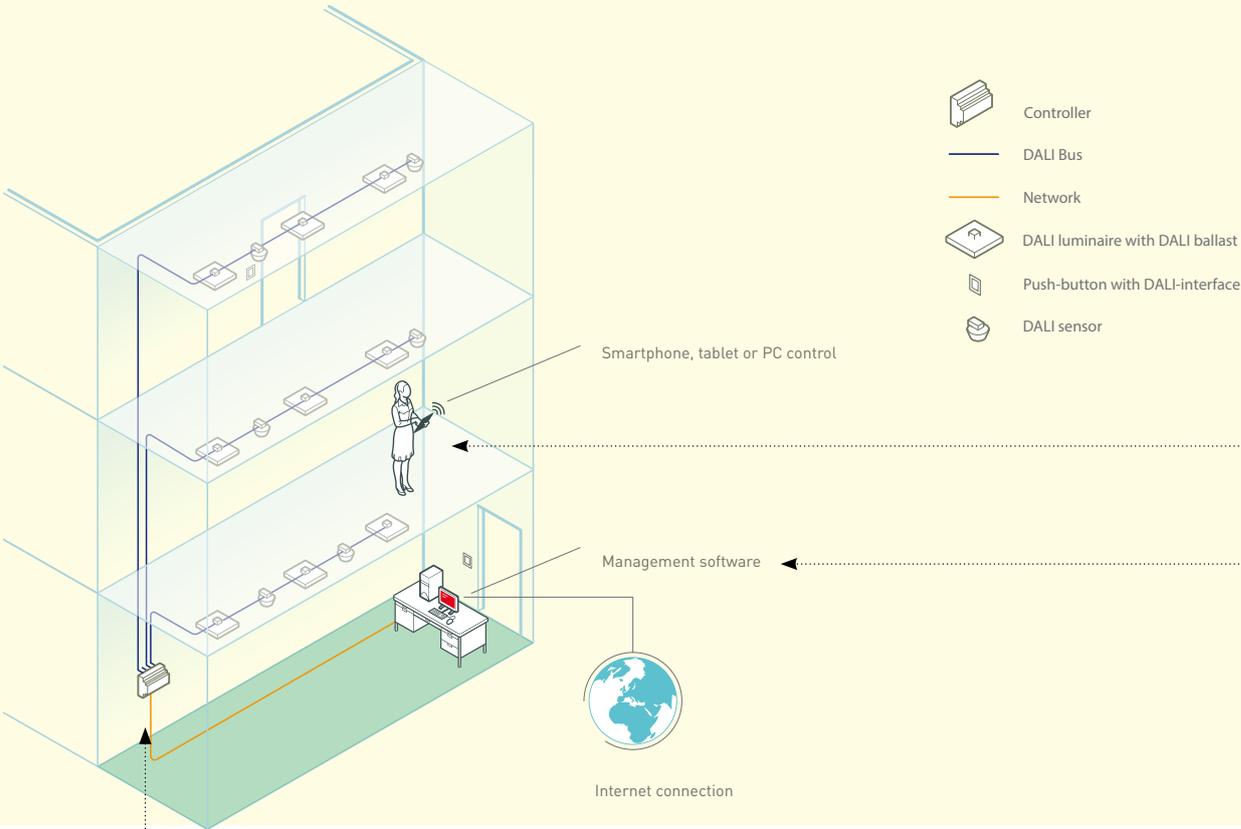
## SCENE-SETTING

In Excellum2 you can define several scenes within the same space. An example is a conference room, where different illuminance is required for presenta-tions, training and maintenance. You only have to configure these various illuminances once in scenes. Subsequently they can be called up again and again on PC, tablet, smartphone, or by fixed switches or push-buttons. In addition, it is easy to assign a scene to various spaces.



*With Excellum2 you can define several scenes within the same space.*

# System structure

ETAP has kept the Excellum2 system architecture as simple as possible. The luminaires and components communicate through a controller. Control and management of the system takes place through an intuitive, user-friendly interface.



Controller

DALI Bus

Network

DALI luminaire with DALI ballast

Push-button with DALI-interface

DALI sensor

Smartphone, tablet or PC control

Management software

Internet connection

## CONTROLLER

The controller is Excellum2's central, intelligent unit. The controller has 4 DALI lines, which can each individually control up to 64 addresses (luminaires, sensors or other components). Each controller therefore manages up to 256 components. Up to five controllers can be linked, which makes Excellum2 suitable for large buildings with several floors. For larger buildings, you can connect up to 50 controllers via an Ethernet Switch to a central server (Head Unit).

*The controller has 4 DALI lines, which can each individually control up to 64 addresses. For large projects, up to five controllers can be linked.*
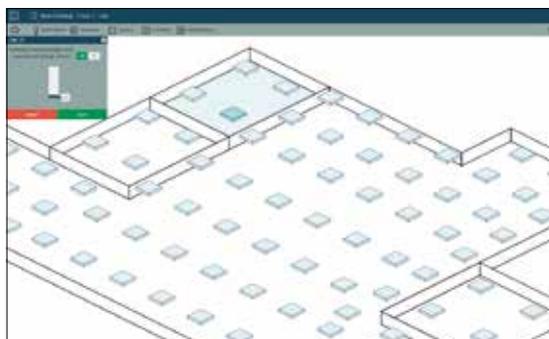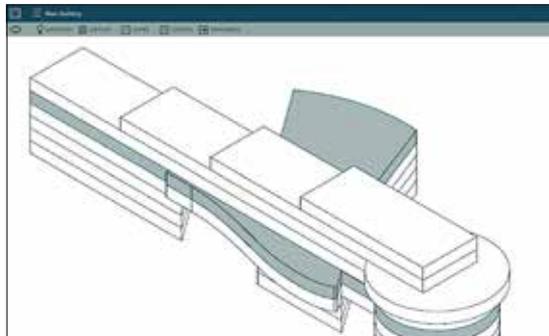
## MOBILE INTERFACE FOR USERS

The intuitive mobile interface enables users to adjust the lighting to their needs and preferences. This can be their own workstation, but also conference rooms, communal areas, etc. Users can switch lighting on and off, dim it or call up previously configured scenarios, controlled on PC, tablet or smartphone.
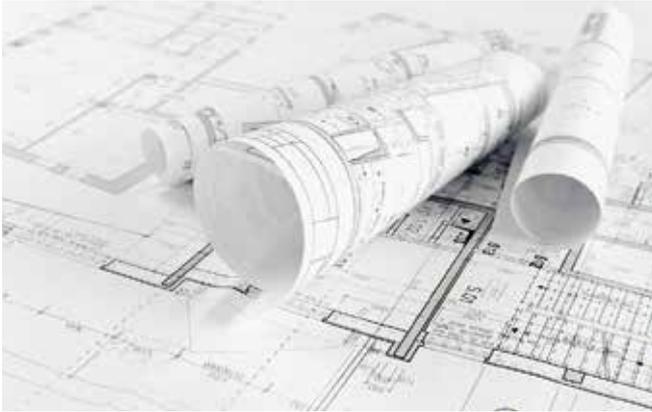
## MANAGEMENT SOFTWARE

A 3D graphic interface exists for facility managers, based on the building's blueprints. You can easily navigate through the building and the various spaces to configure and adjust Excellum2 to your preferences. You can address individually or group luminaires and components and assign them to a zone by using the drag and drop function. Here you can also configure and adjust the calendar, define scenarios, etc.
Excellum2 also features extensive reporting functions, on energy use, among others, degree of occupancy of the building, potential lamp defects, etc.





*The 3D graphic interface is based on the building's blueprints. Using the drag and drop function, luminaires and components can be assigned to a zone.*

# Bespoke system

Excellum2 is a bespoke system: you choose which functionalities you require for your building and that is all you pay for. Your ETAP adviser will assist you from the planning stage through completion to management.



### PLANNING

The choice of the right light control system starts with a thorough needs analysis: what do you aim to achieve with light control? On this basis we will conduct a concept study, in which we establish the various strategies throughout the building. Where can daylight sensors be useful? In which spaces would you like to work with scenario-setting? Do your employees require personal control? The next step is a detailed plan, including a bill of materials, detailed cost estimate and technical overview of the system.

### EXECUTION

Starting up Excellum2 is easy. You can also call on the ETAP Service department to take care of the commissioning of your system.





### MANAGEMENT

Should you still have questions after start-up, or should there be any issues, you can contact our helpdesk during office hours. With online access to the system we will be able to assist you even more efficiently. ETAP can also offer you a service contract, in which we take over full management and maintenance of Excellum2 from you. Consult your ETAP adviser for more information.

# Reference projects



*Ribeira Grande*

**LIBRARY RIBEIRA GRANDE**

SURFACE AREA: 2250 m²
300 luminaires
STRATEGIES: daylight harvesting, occupancy detection, intelligent time control, adjustment to the task, evolving with the building, scenario-setting

**AUCHAN COIMBRA**

SURFACE AREA: 2,848 m²
424 luminaires
STRATEGIES: daylight harvesting, intelligent time control, personal control

**STAPLES LAGOA**

SURFACE AREA: 1,200 m²
208 luminaires
STRATEGIES: daylight harvesting, personal control

# Excellum2

- Bespoke light control system, for both small and large installations
- Easy to manage and user-friendly
- Ensures flexibility and comfort
- Saves up to 75% energy

ETAP
tomorrow's light