# ADMINISTRATIVE TASKS TAKE UP 40% LESS TIME AT JBZ BUILDING, THE GREENEST IN SOUTH OF BRAZIL, THANKS TO ELIPSE E3

Located in Porto Alegre, the real estate project has scored 92 in Leadership in Energy and Environmental Design, the prestigious green building certification, while ranking among the first globally in energetic efficiency at the Leed Platinum 3.0 category

Augusto Ribeiro Mendes Filho
Elipse Software's Media Relations

## Needs

Developed by Belmondo and located at 400 Carlos Gomes avenue, in Porto Alegre, the JBZ building (João Benjamin Zaffari) is regarded as the most sustainable building in the south of Brazil. Designed according to international regulations, the building has scored 92 points in Leadership in Energy and Environmental Design, a distinguished green building certification, and ranks globally among the top structures in efficiency, categories Leed Platinum 3.0 Core and Shell. In South America, it ranks second.

Figure 1. JBZ Building, the most sustainable in its category in south of Brazil

With a total built-up space of 20,270.41 square meters, of which 8,720.51 are destined to the lettable area, the building  has 15 stories, 13 of which are destined to offices. The main tower is composed of 60 rooms. There is also an 80-seat auditorium and two restaurants. To provide sustainability, the building's glass windows are made with UVA/UVB filters to reduce heat in 60%, which in turn results in less thermal load in the AC units (around 30%).

The elevators also use an intelligent system that work on its own weight and restores 30% of energy when used. Equipment installed in the building help cut water consumption down and harvest rainwater, which in turn is used for irrigating the gardens.

To better control the lighting, cooling, and irrigation systems, the JBZ real estate enterprise was completely automated via a BMS (Building Management System) system that employs Elipse E3. Screens interface and a user-friendly operation were the key factors for Belmondo when choosing Elipse E3, the supervisory solution by Elipse Software, a global software developer specialized in platforms for real-time process management. Ideal Home was the company that implemented and customized the application.

## Solution

Elipse E3 is the responsible for monitoring and controlling the building's lighting, cooling system, doors, water reservoirs, parking lot, rain sensors, holding pumps, exhaust fans, and garden irrigation. In order to control the lights, the application was divided into floors. So, to control the lights at the lobby, for example, the operator needs only to click the corresponding icons in order to be able to turn them on/off on the screen that represents the floor plan.


Figure 2. Lights, irrigation, and parking lot gates control at the ground floor

The same logic applies to turning garden irrigation pumps on/off, or opening/closing the parking lot gates. In the gardens, Elipse E3 also allows monitoring the level of water in reservoirs, turning pumps on/off, and opening/closing valves.

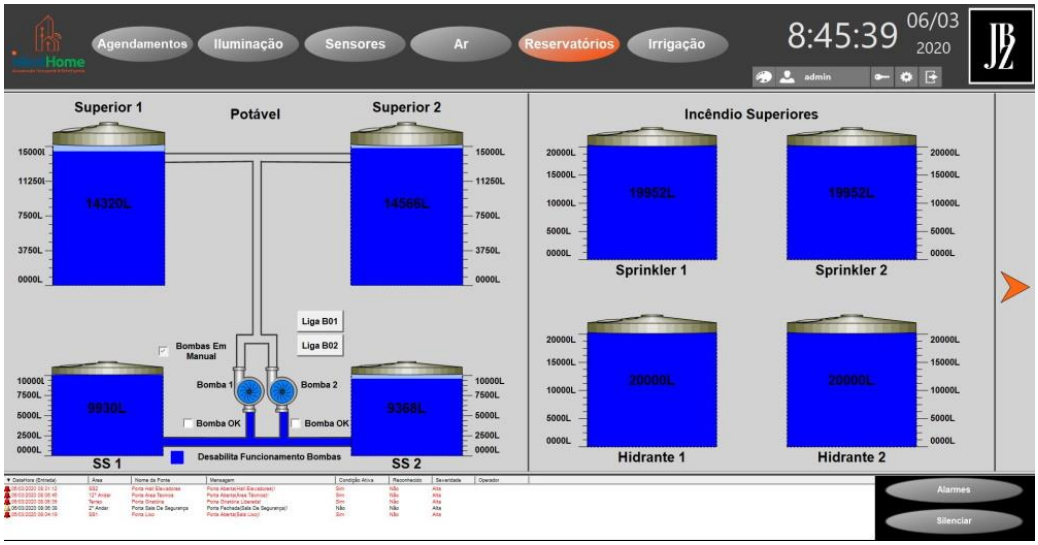


Figure 3. Water reservoirs control

As for the cooling system, Elipse E3 acts on the AC units in order to turn them on/off, increase/decrease temperature and power, and put them in cooling/heating mode. The software also allows scheduling date/time to turn on/off lights, AC units, and pumps in a user-friendly way.

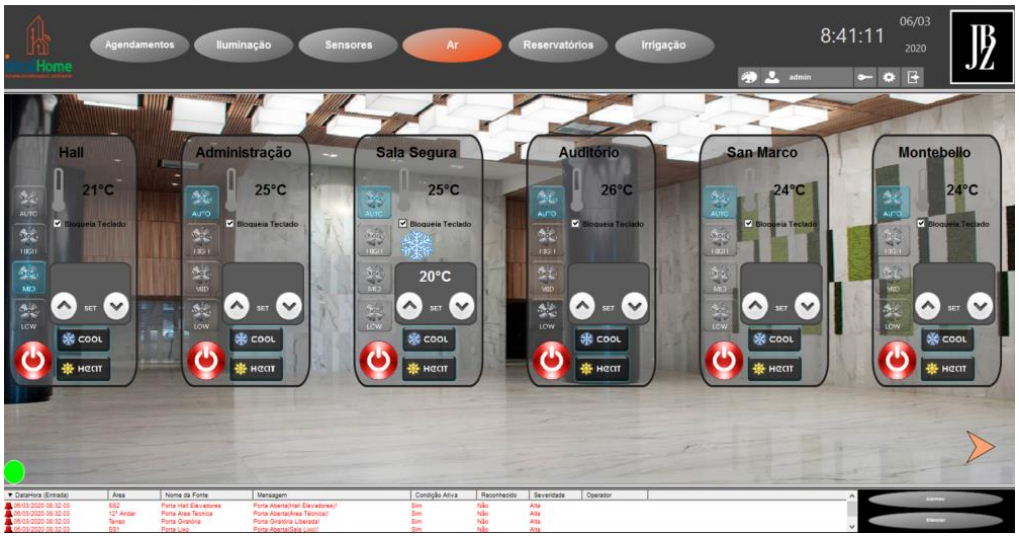


Figure 4. AC units control

To increase the effectiveness of spotting and detecting issues, alarms were programmed in the BMS system. In case a simple occurrence takes place in the application, such as accidentally opening one of the doors, Elipse E3 will fire a sound alarm followed by a pop-up red flag on screen with information about the incident. In order to reinforce this control, the alarms signaled by the system are also listed on the bottom of the screens, where they will remain until they are fixed.

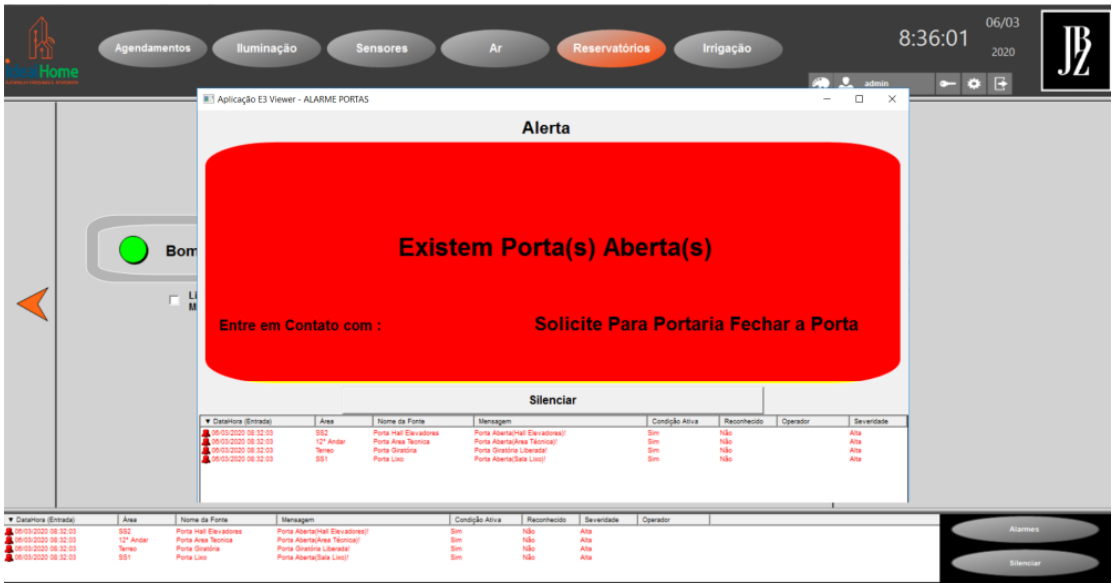


Figure 5. Pop-up issued by Elipse E3's alarm system

## Benefits

According to Laura Bartelle, Belmondo's Marketing Director, Elipse E3 has increased the well-being and created a more dynamic environment for the buildings renters and users, maximizing yield and minimizing losses, since it allows controlling lighting and air conditioning consumption.

"We are now able to gauge precisely how long the equipment needs to be on, and how it should be used. On a day-to-day basis, the system is instrumental for keeping everything organized all at once, since we now have a routine," says Bartelle.

For more sensitive issues, such as water reservoirs, irrigation, and pumps, Bartelle points out that Elipse E3 ensures the system control with more agility and precision.

"It allows us to rapidly check if a device is out of order, so we can act very quickly on it, thus keeping the issues in the equipment from evolving unchecked for too long," she says.

Check out the list below for other important benefits obtained by the JBZ building with Elipse E3:

- Client/administrator can monitor and control automated itens via a single computer.
- Easy browsing through customized screens, which don't require specialized staff training.
- Customized reports are issued per item, with the date/time information set up by the user.
- Building administration tasks and routine take up 40% less time than before, since the whole system can be monitored remotely at the operations center.
- Fewer people are required to monitor the system, which in turn represents greater savings for the enterprise.

## DATASHEET

**Client:** Belmondo

**Systems integrator:** Ideal Home

**Elipse product used:** Elipse E3

**Number of copies:** 1

**Platform:** Windows 10

**Number of I/O points:** 900

**I/O driver:** Home Systems HSNET