

Office Building in Timisoara, Romania

Unified Control of Installation in an Office Building



Outside view

The Office Building is owned by ASIROM – one of the biggest insurance company in Romania – and is placed in the north side of the town of Timisoara.

The Office Building belongs to the Financial Banking Center, which includes as well the Romanian Commercial Bank and the Local Saving Bank. The three buildings will share the same standby power supply and the fire pumps plant.

It is a 10 storied building: basement, ground floor and 8 floors; there are other 3 partial floors on the east corner and 1 partial floor on the west corner. It has a total surface of 11,402 sqm and provides spaces to let: offices, restaurants, bars, cafes. At the second and the third floor there is the head quarter of ASIROM Timisoara.

According with the Romanian standards, it is a high building (+47m height) and it has the first class fire protection.

They were three main-arguments for installing EIB:

Flexibility: The major amount of the spaces is to let. With minor modifications the EIB System will satisfy any arrangements.

Saving energy: The lights und fan coils will be monitored and counted.

Integrated fire control: Because the building is provided with a first class fire protection, the electrical and HVAC installation are monitored.

Benefits offered by EIB

- Controlling several installations: heating/cooling, ventilation, lighting
- Saving energy – using time programs, movement detectors and twilight sensors
- Flexibility when dividing and re/configuring the spaces to let (for example an office has 250 sqm)
- Controlling and counting consumptions in spaces to let
- Integrated fire control
- Monitoring from a central remote location

Projectnumber: Z11/02/E

Country: Romania

Year of Construction: 2000

Area of Application

- Residential buildings
 - Single-family homes
 - Housing estates
 - Senior citizen housing
 - Housing for people with disabilities
- Functional buildings
 - Office buildings / public administration offices
 - Commercial premises
 - Wholesale / retail premises
 - Restaurants and hotels
 - Places of cultural interest (cinemas, theatres, museums, etc.)
 - Health facilities
 - Education (schools, colleges, etc.)
 - Leisure centres (sports, wellness, etc.)
 - Industrial construction
 - Miscellaneous

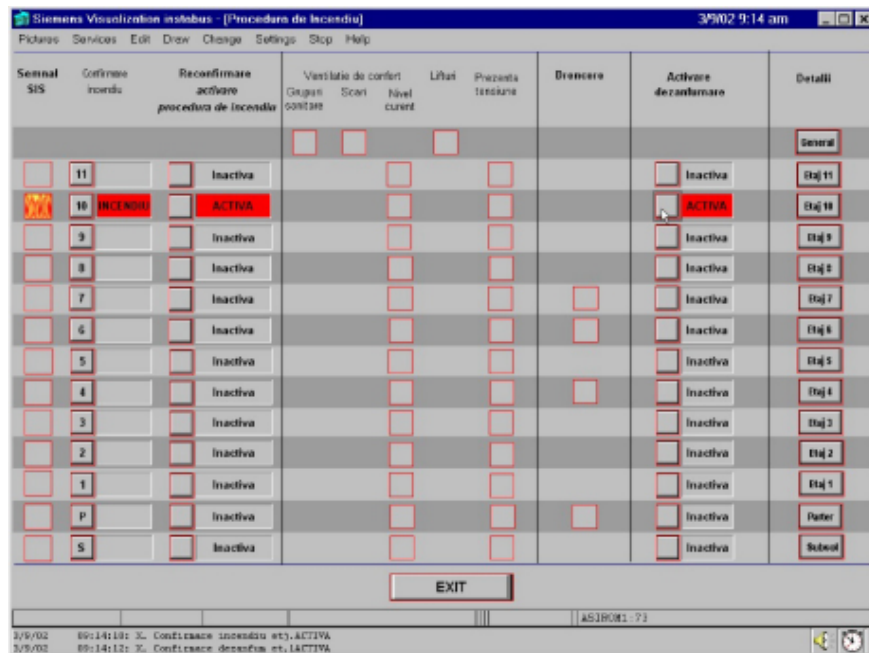
Facilities

- Lighting
 - Shading / light direction
- Heating, ventilation, air-conditioning
 - Alarm systems
- Technical monitoring
 - Energy management
- EIB visualization
- Interfaces to other systems
- Remote operating and monitoring
- Other applications

Scope

- Number of areas/lines: 3/14
- Number of EIB devices: 642

EIB as Growing Network for many tasks



Semnal SIS	Confirmare incendiu	Reconfirmare activare procedura de incendiu	Ventilatie de confort Grupuri scari Nivel curent	Lifturi	Prezenta taskuna	Drenajere	Activare dezarmanare	Detalii
<input type="checkbox"/>	11	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	General
<input checked="" type="checkbox"/>	10	<input checked="" type="checkbox"/>	ACTIVA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Etaj 10
<input type="checkbox"/>	9	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 9
<input type="checkbox"/>	8	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 8
<input type="checkbox"/>	7	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 7
<input type="checkbox"/>	6	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 6
<input type="checkbox"/>	5	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 5
<input type="checkbox"/>	4	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 4
<input type="checkbox"/>	3	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 3
<input type="checkbox"/>	2	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 2
<input type="checkbox"/>	1	<input type="checkbox"/>	Inactiva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etaj 1
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Projectnumber: Z11/02/E

Visualization – fire scenario

▼ The building is provided with a first class fire protection. This is the reason for the electrical and HVAC installation to be monitored and controlled.

The main difficulty was the fact that the electrical and HVAC installations were almost completed and, in order to be integrated in EIB, these installations should have been modified. The classic switches and thermostats were replaced with EIB pushbuttons and room temperature controllers; in ceilings it was created "interface zones" where EIB actuators were installed. In addition, EIB devices were mounted in the electrical distribution boards.

The fire scenario is controlled by EIB installation. The fire detection system works independently and those two systems are linked through a serial gateway using ASCII – TXT protocol. Fire alarm of a floor is transmitted with a binary "1" signal to a corresponding ETS group, and the EIB system begins the fire-scenario procedures:

- fan-coils are stopped on stairs and on the affected floor and the common spaces
- on the affected floor and the common spaces, the air handling units are stopped and fire-dampers are closed
- elevators are announced, they came down

automatically and they are secured with fire resistant doors; after that the elevators send their status to EIB system. As long as the fire alarm is announced, elevators are locked at the ground floor; excepting the fire service elevator

- if the affected floor has fire-drenchers, they could be turned on. Fire drenchers could not be turned on by accident. For each floor two conditions must be fulfilled simultaneously: the fire alarm and the confirmation from the EIB dispatcher using a special push button

• the smoke extraction system is turned on. The status of fans, traps, fire-dampers, fan-coils, fire-drenchers are monitored at the central computer and all the actions are recorded in a log-file. ▲▲

Technical "specialities"

- The most important EIB device, which ensures fire-scenario functions, is the Function Module Realtime PLC which handles the complexity of the algorithm.
- In order to ensure remote monitoring and maintaining, it was chosen the complete communication solution provided by pcANYWHERE.
- Modifying EIB parameters, as well as modifying Visualization variables and programs can be accomplished on-line, unless physical modifications are required. In the same time there is a chat window, where on-line teaching is provided.

Participating Companies

Building owner:

ASIGURAREA ROMANEASCA – ASIROM
RO-1900 Timisoara

Architect:

studio CASA VOC
RO-73371 Bucharest

EIB system integration and visualization:

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