

“Informatikos ir ryšių technologijų centras” designs solutions for business and industry, offers to companies who manage buildings specialized Automated telemanagement and recording system for room lighting. It includes hardware and software.

Compare to standard SCADA systems, “AGATAS” realizes additional functions, dedicated increase efficiency of lighting system and decrease the costs.



### “AGATAS” ensures

- Control of power capacity on lighting network, so decreasing consumption of electrical energy;
- On request centralized or decentralized control of lighting network, so decreasing exploitation costs;
- Monitoring of lighting network parameters and condition;
- Automatically record of consumed electrical energy;
- Collection of measurement and record data, analysis, storage and creation of report.

It allows to save electrical energy.

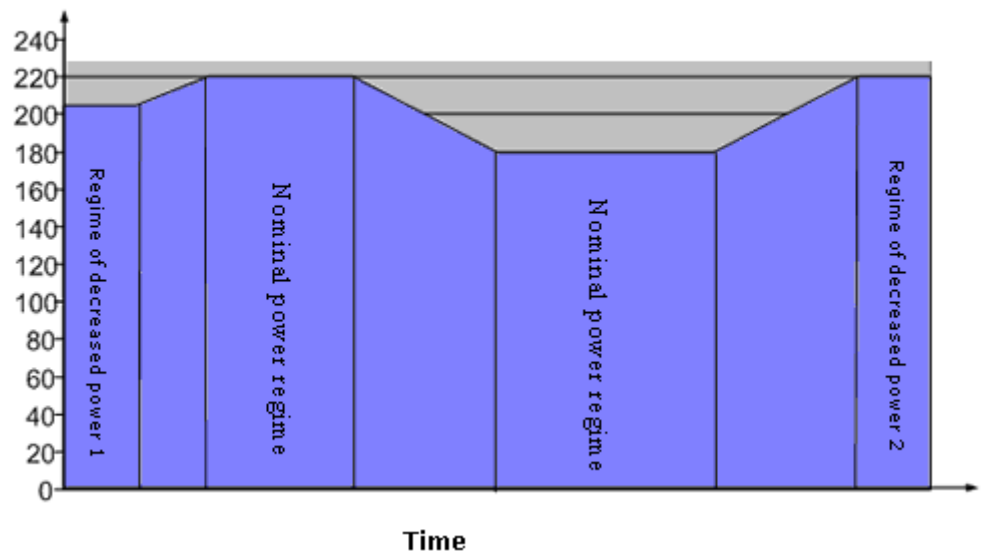
Economical effect of “AGATAS” implementation depends on lighting network functional automatization and on power regulation of lighting network.

### Main functions

**Power control.** Power control of lighting network is performed by controller, by changing – voltage of lighting equipment. This allows:

- decrease voltage till allowed limit (180-220 V), in this time decreasing costs for electrical energy;
- protect lighting lamps from over voltage, who decrease their working time;
- ensure stability of voltage.

Voltage, V Control diagram of lighting equipment supply voltage



Saving of electrical energy is received by supply to lighting equipment voltage lower than nominal voltage. Mains supply may be decreased until certain lever for all type of lamps.

Voltage control algorithms may be configured individual to each lighting network sector (phase).

**Lighting control.** On request lighting control may be performed in different ways. Lighting of rooms may be performed centralized and decentralized. Control may be performed from common control panel, also from local panels and autonomous (without control panel).

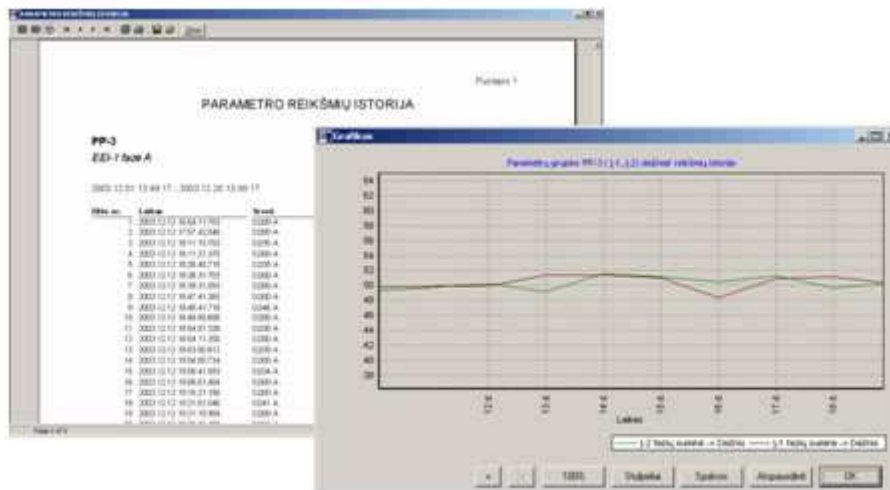
- Lighting control equipment allows switch on/off separated fazes of lighting network, this allows flexible control and possibility to create optimal lighting schedule.

**Monitoring of lighting mode.** Installed equipment without lighting control and voltage regulation perform measurement of parameters and control of signals from different external sensors. Control parameters:

- momentum and periodical average current, voltage, power;
- sum and over period of time electrical energy consumed;
- condition of switches and safety-catch;
- signals from sensors on power management panel door.

Internal software of controller following algorithms process data from measurements, record signals crossing limits set, performs corresponding messages. Here some examples:

All these data are archived and saved on energetically independent controller memory. When control equipment is installed, data may be archived on PC and used for later statistical analysis. Reports may be delivered to user in form of tables or diagrams.



## Summary

Summary. "AGATAS" – is as system, which is designed to increase reliability of room lighting network, increase efficiency of maintenance, decrease maintenance costs, save electrical energy.

- Installation of new innovative technology decreases consumption of electrical energy, cases of failure.
- Flexibility of control, application of modern and reliable equipment, possibility to create different working regime allows optimize room lighting network, increase its quality.
- Expeditious control of network condition allows increase substantially lighting network maintenance efficiency, decrease response time to failures, resource costs.
- Archiving statistical data of lighting network and its analysis allows determine courses of network failure, undertake its prevention.

After installation of "AGATAS" common saving average:

- Possibility to decrease consumption of electrical energy up to 20 %.