



# Street Illumination in the City of Vibo Valentia

*Bit Control and Ligeam have created public street lighting supervision for Vibo Valentia using Progea's Movicon 11 SCADA.*

Bit Control are design engineers who create, integrate and manage solutions for control and supervision systems by implementing the most advanced techniques and methodologies today. This is accomplished by using the most innovative approaches and software which they develop on the specific needs of the client. Within the ambit of realising supervision and control systems, Bit Control offers its expertise in developing SCADA systems, MES systems, programming and implementation of PLCs, RTUs and DCS of leading producers on today's market, data management and reports. The added value of the solutions they offer does not derive from the systematic rebuilding of already developed ones, but from reintegrating

and adapting existing systems in the company which for Bit Control is a true company asset. Therefore integrating systems, architecture and data banks is the authentic added value which they offer to clients. The system created by Bit Control at LIGEAM Company, whose head offices reside in Maierato (VV), permits visualization and remote control of the electrical panels as well as public street lighting management. The main goal was to monitor the functioning and power consumption of each individual electrical panel of which the operators could fully control 24/7. The SCADA system used in this application is Movicon 11.4 produced by Progea. It consents energy consumptions, light bulb inefficiency and light intensity to be monitored from the main control room. Each command panel has been inserted with a



1. The Movicon Home Page showing electrical plant management localization

micro PLC and a network analyser, connected in network by means of using a modem router. The PLC manages both the turning on and off of the system with an astronomical clock as well as circuit breakers, differential and contactor switch status signals. The analyser is used to measure the main electrical parameters. This data is collected and recorded on a SQL Server Database and made available for various system analysis.

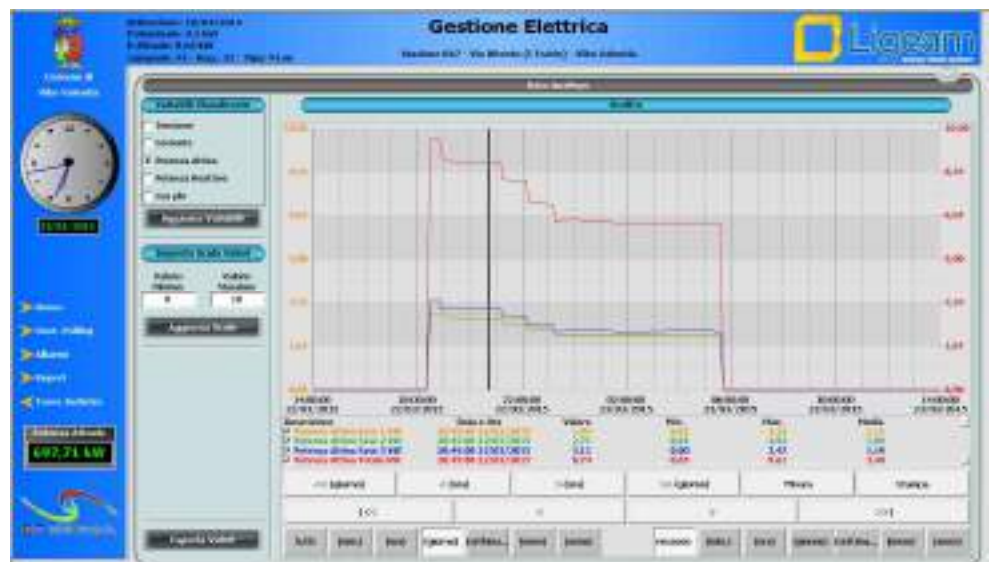
The behaviour of the retrieved data can be viewed in Trends. These are graphical objects that are purposely designed to display curves that represent the behaviour of the retrieved data. The Movicon Data Analysis is a more sophisticated analysis than the trend and represents analysed data in charts. In order to display historical data recorded by the data loggers effectively, Bit Control purposely

designed a chart with a curve that permits the automatic selection of predefined periods. Tools have been provided in order to compare data of the various active energy points between 1 kW phase, 2 kW phase, 3 kW phase and the Total kW phase (Fig. 2).

In particular and very important, an option has been included to insert four time ranges to be used to control the minimum and maximum energy consumptions of each

individual plant. In this way those systems running on reduced energy within these plants can be continuously monitored.

By exploiting the various options provided by the Movicon supervision, such as the Alarm Dispatcher, notifications can be sent by email to alert personnel of any malfunctions. In addition the Web Client technology allows all



2. The Movicon Data Analysis used to analyse and display charts based on predefined time ranges.



3. Screen of one of the workstations configured with the astronomical clock status and settings as well as the various options.

authorized operators to access the system, based on their access level, to control data of the various workstations and modify the times of the astronomic clock in order to change on/off time when needed. This they can do by using a simple browser without needing to install any particular program. This permits the Ligeam operators to obtain full control by means of using their smartphones whenever and wherever they happen to be. Bit Control used the Movicon 11.4 version because it is an Italian system that is open to acquisitioning the different peripheral types present in the field. In addition, Movicon is very fast to use to develop applications and together with the Alarm Dispatcher and Web Client work becomes much simpler and time reducing for the developer.

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