





# **Customer Success Story**

# Attiki Odos Motorway Attica, Greece





Attiki Odos Motorway Overview Screen

# "This monitoring and control application was designed and integrated on time by Algosystems SA in Athens, Greece. The SCADA graphics are very impressive, and the system allows our operators a complete picture anywhere on the highway. The system provides a fast and reliable centralized tool for our emergency personnel and support team. The ICONICS software helps make the Attiki Odos a world-class motorway."

#### **Serafim Tsavdaras**

Project Manager with AKTOR SA (part of the Attiki Odos construction team)

# **About Attiki Odos Motorway**

The Attiki Odos Motorway is one of the most modern motorways in Europe. The highest standards have been observed in its design. The motorway extends over 60 km, is four lanes wide, and has 32 multi-level interchanges and hundreds of overpasses. The Attiki Odos uses the most modern equipment for incident detection and emergency response.

# **ICONICS Software Deployed**

GENESIS32<sup>TM</sup> is used in a redundant configuration along with AlarmWorX<sup>TM</sup>32. The redundant GENESIS32<sup>TM</sup> servers are responsible for the monitoring and control of all electromechanical equipment for the tunnels and highways. This includes the lighting and tunnel

ventilation systems. The air quality within the tunnels is monitored, and GENESIS32 can allow exterior airflow, as needed, to keep the tunnels clear of carbon dioxide, smoke and nitrogen oxide.

### **Key Features**

In addition to controlling the lights and ventilation system for all the tunnels, ICONICS software is also responsible for other systems within the Attiki Odos motorway. All emergency fire hose panels, irrigation pumps, power distribution (medium and high voltage), UPS systems and diesel generators are monitored and controlled by the ICONICS software. MSDE is used for all data logging.

#### **Project Summary**

ICONICS' GENESIS32 software system was installed at Attiki Odos to centralize motorway operations and provide the status of all electromechanical systems. The SCADA system enhances the ability of motorway operators to easily identify and handle emergency situations and overcome malfunctions of equipment in order to provide better quality of services.

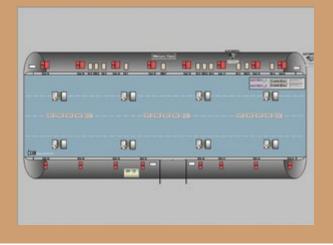
With over 25,000 I/O points, the redundant GENESIS32 servers are interfacing in real time with Opto22 LCM4 redundant controllers and LCSX-Plus controllers over an Ethernet network. The system response time is less than two seconds. GenBroker is used to enhance

#### **Conclusion**

ICONICS, Algosystems Integrators and AKTOR SA have all worked together to make the Attiki Odos, the connector in and around Athens, a successful application. This project was under a tight deadline and opened on time for the 2004 Summer Olympics in Greece.



The Olympic Road Network



A Ventilation Control Screen for the Attiki Odos Motorway in Greece

communication of operator workstations with servers. Algosystems, using ICONICS OPC ToolWorX<sup>TM</sup>, developed a multithreaded OPC server with redundancy features to interface with Opto22 controllers.

## **Benefits of the System**

ICONICS software was selected for this application due to the open modular architecture of GENESIS32 along with the proven reliability of the redundant GENESIS32 servers and the breadth of OPC servers and toolsets.

# **Solutions Highlighted**



#### **GENESIS32**

Web-Based HMI/SCADA Visualization

#### AlarmWorX32

Multimedia OPC Alarm Management Software

#### **OPC ToolWorX**

Rapid OPC Development Toolkit

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