

# **Success Story**

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**Industry: Transportation** 

Customer: Attiki Odos Motorway
Attica, Greece



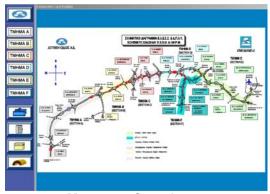


Olympic Road Network

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**

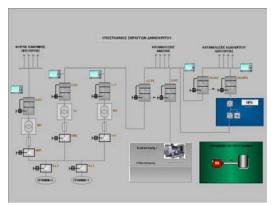
GENESIS32™ is used in a redundant configuration along with AlarmWorX™32. The redundant GENESIS32 servers are responsible for the monitoring and control of all electromechanical equipment for the tunnels and highways. This includes the lighting and tunnel ventilation systems. The air quality within the tunnels is monitored, and GENESIS32 can allow exterior airflow as needed to keep the tunnels clear of carbon dioxide, smoke and nitrogen oxide.



**Motorway Overview** 

# **Key Features**

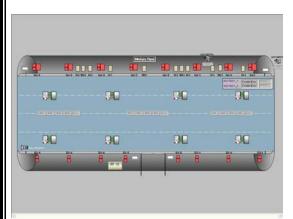
In addition to controlling the lights and ventilation system for all the tunnels, ICONICS software is also responsible for other systems within the Attiki Odos motorway. All emergency fire hose panels, irrigation pumps, power distribution (medium and high voltage), UPS systems and diesel generators are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



**UPS Control Screen** 



Leaving the Airport



Ventilation Control Screen

## **Tip From the Customer**

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." states Serafim Tsavdaras, Project Manager with AKTOR SA (part of the Attiki Odos construction team). "The ICONICS software helps make the Attiki Odos a world-class motorway."

## **Project Summary**

ICONICS GENESIS32 Software system was installed at Attiki Odos to centralize motorway operations and provide the status of all electro-mechanical 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.

#### **Details**

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 communication of operator workstations with servers. Algosystems, using the ICONICS OPC ToolWorX™, 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 toolset.

#### Conclusion

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

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