

## Algosystems Uses Marathon and Iconics to Control Major Motorway in Greece for 24\*7 Safe Operation

### PROFILE

Kakia Skala Motorway in Greece

### ENVIRONMENT

Marathon everRun®  
Windows® 2003

### WINDOWS APPLICATION

Iconics Genesis32  
SCADA, monitoring and control

### THE MOTORWAY

The Kakia Skala Motorway is a vital connection between Athens, The Peloponnese, and the West of Greece National Highway's.

The Kakia Skala – meaning “Bad Stair” or “Bad Landing Place” – is located 47 km from the capital of Greece on the National Highway. This area's name was fitting, since it caused great stress to many drivers traveling along the dangerous 8 kms of twists and turns. It was named in antiquity for its foreboding geography, with beautiful sea vistas but abrupt drops. To ensure safety to travelers, the New National Highway rerouted the road and eliminated many dangerous bends. Five tunnels were built, and the road was widened to three lanes in each direction. While the tunnels may not be the longest in the world at 4,470 meters in total length, they may be the widest in Europe at 19 meters. Each tunnel allows for three motor lanes, an emergency lane, and two sidewalks.

### THE MOTORWAY AUTOMATION SYSTEM

Inside these tunnels, a state-of-the-art fully-automated control system has been implemented by Algosystems. This system monitors and controls ventilation, lighting, traffic control and emergency systems, using Opto22 PLCs coupled with Iconics Genesis Software. The software receives data for 36,000 I/Os from the PLCs inside each tunnel to create a live picture of the situation in each tunnel. Information such as exhaust fume concentration, level of lighting, traffic flow, and wind speeds are displayed. For the safety of the tens of thousands of drivers that use the motorway daily, it is critical that the system remains in operation 24 hours a day, 365 days a year. In order to achieve this level of reliability, Algosystems turned to Marathon Technologies and Marathon everRun software.

**MARATHON**

Run to Infinity

# Success Story

## WORLDWIDE HEADQUARTERS ICONICS, Inc

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## MARATHON DELIVERS FAULT TOLERANCE

Marathon's software unites two industry standard Intel-based servers (double Xeon CPUs each) to create one virtual server that provides a fault-tolerant operating environment for Windows applications and an Operating System that is protected from faults and failures. SCADA server application and Traffic Management System are implemented based on ICONICS Genesis32, and Microsoft SQL Server platforms. Applications are installed, run, managed and accessed through the single virtual server, eliminating the need to install, manage, and license multiple copies, as required in clustering and failover applications.

## MARATHON AND ICONICS

Marathon's everRun solution has been used in many automation systems worldwide. Marathon has formed

an alliance with Iconics to fully support Iconics products on the everRun platform. Customers in various parts of the world have taken advantage of this.



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