LUKOIL
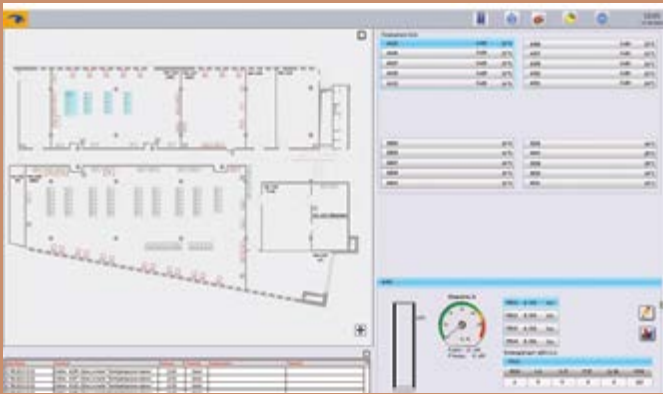## Moscow, Russia

Moscow, Russia

Rack Management Controls Designed in GENESIS64

About LUKOIL

LUKOIL, headquartered in Moscow, Russia, is a major, international, vertically-integrated oil and gas company, accounting for 2.1 percent of the global output of crude oil. It is the largest privately owned oil and gas company in the world by proven oil reserves and is the third largest privately owned oil and gas company by oil production. LUKOIL handles 16.3 percent of Russia's crude oil production and 16.7 percent of the country's crude oil refining. It is one of the biggest Russian oil business groups with $139 billion revenue and net income in excess of $11 billion. Its strong position is the fruit of 20 years' work in expanding its reserve base and increasing its scale of business by seeking out and executing strategic transactions.

About NVision Group

NVision Group is one of the largest developers and suppliers of unique solutions and services in the Russian IT market. Its solutions help customers to achieve their strategic objectives both through improving the efficiency of the entire IT infrastructure, and through optimization of individual business processes. The company specializes in the design of systems used to significantly reduce business informatization costs. It aims to protect clients' business and develop new services, while striving to enhance their quality level.

ICONICS Software Deployed

LUKOIL, working with NVision Group, selected ICONICS GENESIS64™ HMI/SCADA software, including its GraphWorX™64 data visualization tool; Workbench centralized configuration environment; GridWorX™64 real-time spreadsheet visualization/control tool; AlarmWorX™64 distributed, enterprise-wide alarm management system; and TrendWorX™64 plant-wide data collection, logging, charting and analysis solution. LUKOIL also uses ICONICS WebHMI™ Web-based real-time automation software along with GENESIS64's publishing wizard.

Project Summary

LUKOIL sought an HMI/SCADA system for a planned datacenter, the latest of many among the company's widespread IT infrastructure, in its new Moscow company office. Working with NVision Group, the company sought a solution that can provide maximum security and performance of datacenter utility systems while also

ensuring high energy efficiency. LUKOIL's datacenter computer rooms include over 100 server racks, each designed with a capacity of 17kW of power.

In addition, the company mandates that its utility systems have 24/7 control capability.

The company wanted an HMI/SCADA system that could provide estimates for the datacenter rooms' technological and climatic metrics and could quickly acquire status information for all nodes of power and cooling/air conditioning systems. As the planned datacenter was to include approximately 5,000 data points, LUKOIL sought an HMI/SCADA solution that easily centralizes functional mode management for utility systems.

ply system, from incoming switchgear to certain server racks. GENESIS64 is used to provide an ergonomic interface design, developed specifically with consideration of operating personnel efficiency. Users of the new system are now able to view data from different subsystems in a single window, allowing for the comparison and analysis of information without additional reports and needless switching between windows.

Conclusion

Since selecting ICONICS software solutions to meet their project needs, LUKOIL and NVision Group have designed controls and interfaces using existing compo-
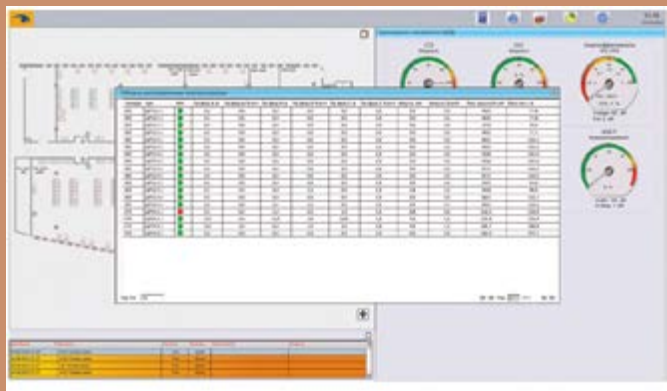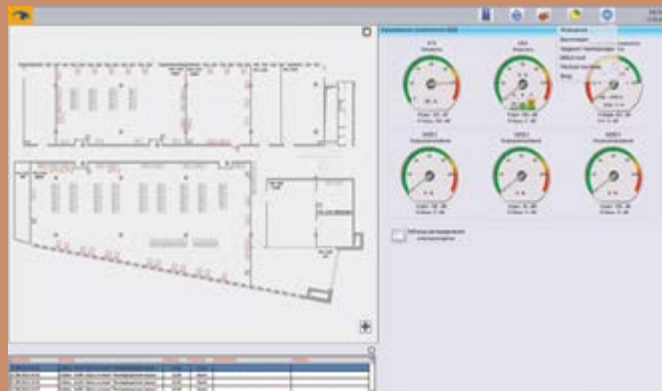

Chart Component of a LUKOIL Control Screen

LUKOIL System Menu Created Using GENESIS64

Benefits of the System

Currently, ICONICS' GENESIS64 HMI/SCADA suite assists LUKOIL's operational department in the efficient and secure placement of equipment in server racks, based on:

• Actual Power Load by Rack Design
• Power Load Level by Electric Phases
• Nominal Value Ratio of Actual Power Load to Embedded Switches

LUKOIL's new HMI/SCADA system now helps users to monitor critical cases and trends, including power distribution deviations for each level of electrical power sup-

nent templates found within GraphWorX64, as well as components developed especially for this project. The companies have found that, due to the wide graphic and functional abilities of GENESIS64, users now can:

• Process High-quality Vector Images of Infrastructure Elements
• Import Data from Connected Databases into Easy-to-Understand Table Views
• Build Customized Historical Trends
• Download Reports for Certain Periods and Systems
• Analyze Different Data