ABB is moving the automation industry into the 21st Century along the road to Industrial IT. This path, backed with the development efforts of the market leader in automation solutions worldwide, brings your plant into real-time operation. You will benefit from integrating systems from the business world through to the operation of your plant, keeping your organization informed. Real-time information will be the basis for your decisions in the future and ABB is taking you along the road to Industrial IT.

Please contact your ABB service representative for more information.

EGATURN™ Control System for Gas Turbines

Retrofit Package

“Plug and play” Solution for Turbine Control Retrofit

ABB’s EGATURN™ is the new brain for your gas turbine control system. This plug and play retrofit solution allows you to migrate an old analog gas turbine controller to a state-of-the-art digital control system. EGATURN™ replaces the critical, obsolete and unreliable electronic parts and introduces a new dimension of gas turbine control utilizing the latest advances in the world of information technology. A compact and easy to install solution package is the only thing between increasing your power plant’s performance, extending its lifetime and dramatically reducing operating costs.
Our Solution

Digital Control System
EGATURN™ is a microprocessor based, distributed digital control system designed for control and monitoring of the Alstom Power gas turbine types GT9 and GT11.

Total Integrated Solution
EGATURN™ is a fully integrated solution, which is scalable with various options. It fulfills all the necessary requirements for safe and economic operation of gas turbines and offers the possibility of a total integration of all the main functional areas of your power plant into one common system.

Standardized Retrofit Package
The retrofit upgrade with EGATURN™ offers a standardized package that replaces outdated electronic components. Designed to fit into the cabinet of the originally delivered section A layout. EGATURN™ provides standard interfaces to other controls.

Industrial IT Compatible
The EGATURN™ control solution enables your plant to effectively compete within new power market environments and opens your power plant to the world of ABB's Industrial IT.

Easy and Quick to Install
EGATURN™ is designed to be installed and commissioned in an extremely short period of time. This is achieved by developing a standard solution package, carefully designed and tested within ABB's plant simulator, which precisely imitates the whole gas turbine process.

Multi-windowing Operator Station
An optimized process flow presentation and hierarchically structured process displays allow efficient analysis of the process status and enable quick operator response. The sequence of events, as well as the alarm annunciation, are integral functions of the system.

Fig.: System overview with possible extensions

Performance Calculation
Plant Management
Remote PC
Main Control Room
Operator Station
Local Operator Station

System Highlights
EGATURN™ in its basic version provides the following scope of functions, which can be extended with various options:
- Sequencer for start-up, shut-down and fuel change-over
- Vibration supervision
- Temperature supervision and control
- Alarming and indication with 3ms time stamp resolution
- Speed measurement and supervision
- Operation and indication via the existing operator panel

Your Benefits

Phased Retrofit Investments
EGATURN™ is a highly modular solution, which offers numerous scalable extensions increasing the functionality of your control system. This allows you to plan your retrofit activities in steps, dividing your annual budget into manageable projects.

Plug & Produce
Due to the extremely short startup and installation time EGATURN™ can be defined as Plug and Produce solution. For you as a customer this means lower cost through minimized downtime.

Industrial IT enabled
EGATURN™ opens the world to Industrial IT. Once it is installed, you profit from fast information access to plant data. It offers best possibilities to integrate other systems of your plant into one control system. You can flexibly extend the system with Optimax® plant management and optimization packages, which could further increase your plant performance.

Reduced Costs
EGATURN™ solves the problems, which are caused by obsolete electronic parts. Unexpected system shutdowns and repair times are reduced to a minimum. The possibility of fully automatic control of the gas turbine reduces operation costs.

Increased Productivity
Highest reliability and availability of the control system guarantees more productive hours. Fast high precision controllers allow faster start-up times, faster reaction times for load changes and exhausting maximum performance of the turbine without reducing its lifetime. A state-of-the-art HSI allows you to extensively control and monitor your plant from one place.

Increased Lifetime
Smoother control; the highly improved supervision and protection system optimally protects your gas turbine and thus extends its lifetime.