

Fanuc 90-70 and 90-30 Series PLC Platforms

Gas Turbine / Compressor Controller Upgrade



The 90-70 series was one of the most successful controllers in PLC history.

GE Fanuc 90-70 and 90-30 PLC Now Obsolete

Recently, GE Intelligent Platforms issued a bulletin which designated the 90-70 and 90-30 series PLC platforms mature. GE classified over 40,000 90-70's and more than 500,000 90-30's as "discontinued" in 2011. While still serviceable for some time, this means the product is officially obsolete.

Despite its obsolescence, the 90-70 series continues to provide robust and reliable control solutions in a wide-range of applications around the world. Over the years, Petrotech has installed many of these systems to provide gas turbine and compressor controls for its customers. The 90-70 was one of the most successful controllers in PLC history.

Petrotech Keeps It Going

At Petrotech, we understand it can be difficult to justify replacing an obsolete system when it is operating problem-free. The Petrotech approach is to maximize the remaining lifetime use of the installed legacy system with minimal cost and downtime while at the same time preparing the system for future upgrades.

By replacing the obsolete processor and chassis, Petrotech can quickly upgrade the 90-70 or 90-30 Series PLC to a state-of-the-art turbomachinery control system.

The primary Petrotech solution replaces the legacy chassis and CPUs with the current GE RX3i PAC system components. The existing 90-70 PLC controller programs including (as applicable) the Petrotech Anti-Surge Control (ASC) and the Turbine Fuel Regulator (TFR) Control are ported into a current technology processor using standard IEC 61131 programming languages. The existing 90-70 I/O modules are reused in the new chassis. This method is minimally invasive as it only affects the processor module and system chassis. The new system remains fully functional and can now be upgraded incrementally as needed.

Petrotech 90-70 and 90-30 Upgrade Advantages

- Over 40 years of Petrotech turbomachinery expertise
- 100% code transfer— fully integrated functionality
- IEC-61131 standard programming
- Re-use much of the existing 90-70 system
- Easily increment additional capacity
- New CPU forms base of future system

The System

To upgrade a 90-70 or 90-30 series PLC, the Petrotech project team will convert the legacy program to an IEC-61131 standard compliant program. Using IEC-61131 standard programming languages reduces end-user operation and maintenance costs by providing a common methodology across multiple PLC systems.

Fanuc 90-70 and 90-30 Series PLC Platforms

Full forward application compatibility for existing Series 90-70 and 90-30 systems.



Model No. RX3i

At site, the old processor and chassis are removed. The new Petrotech-supplied processor executes the legacy system functionality. The new processor now provides a current technology solution to an aging system. In the future, the new RX3i system will form a base element for replacing the remainder of the system on the user's schedule. This replacement can be accomplished either incrementally or all at once. The advantage is that the user rather than the system supplier decides when to replace the system.

No other supplier has the turbomachinery control experience found in Petrotech. The upgrade programming, in addition to being converted to the international standard IEC-61131, will also include the latest in mature application programming. The Petrotech advantage is the applications it provides are based on over 40 years of successful runtimes.

Optionally, Petrotech can also provide other open Architecture PLC platforms should the user decide to replace the 90-70 or 90-30 series PLC system with a non-GE approach. Petrotech will simply place its proven-in-use application software into the nominated PLC.

Contact your Petrotech representative for additional information.

Petrotech's products include integrated control systems for gas, hydro and steam turbines, generators, reciprocating/diesel engines, centrifugal and axial compressors, pumps and all associated ancillary systems.

Our turnkey services include engineering design and project management (software and hardware), instrumentation, control panel fabrication, site I&E services, commissioning, startup and all aftermarket and training services.

For more information about Petrotech's products and services, visit our website at www.petrotechinc.com.



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