

Engineering Analysis

TRAX engineers find analytical solutions to engineering issues using a wide variety of software tools, including: *ProTRAX* Dynamic Simulation Software™, *GateCycle*™, PEPC, and FLUENT® Computational Fluid Dynamics (CFD) software.

Whether our clients are designing a new plant, or are endeavoring to solve an operations issue with an existing plant, our experienced simulation engineers are ready to help.

Utilities, engineering firms and original equipment manufacturers (OEMs) have relied on TRAX to provide them with economical simulation solutions for nearly 25 years.



NFPA 85 Consultation Services

TRAX offers unparalleled experience in NFPA 85 regulation requirements. Our engineering team can perform a complete, independent **Controls Review** to ensure a safer and more efficient facility.

Over time changes in operating procedures, degradation of instrumentation, temporary fixes and the addition of new equipment can result in controls and instrumentation that no longer complies with existing standards.

Let TRAX engineers review your control system to determine how the new or control logic complies with Combustion Control Requirements and Furnace Implosion Protection of the NFPA 85 code.

TRAX Engineering can also evaluate your plant's NFPA 85 instrument code compliance by performing a complete **Instrumentation Review**.

TRAX engineers will review the instrumentation based on its compliance with NFPA 85 relevant requirements such as: Manufacture, Design and Engineering, Installation and Commissioning, and Maintenance, Inspection, Training and Safety.

Our experienced engineers will also identify measures to maintain the system in a safer and more robust state based on Good Engineering Practices.



High-Fidelity Modeling

- Furnace Draft Analysis
- Boiler Design
- Dynamic, Steady-State, and CFD Plant Modeling (new design, modification and troubleshooting)
- Gasification
- Carbon Capture
- Wastewater and Desalination
- Pipeline Optimization Analysis
- Nuclear Power Uprate Analysis
- Hydro Plant
- Unconventional processes (fuel cells, fluidized bed, etc.)

DCS / PLC System Design & Commissioning Services

Control systems are one of the most important elements within a facility; and if the facility is to work correctly, the controls have to be applied, installed and commissioned properly. With TRAX's Control System Commissioning team you can rely on advanced engineering and control specialist knowledge to ensure that the entire installation of controls is done correctly.

TRAX Engineering offer the latest technology and systems, including feasibility studies, technical advice, design engineering, supply, installation and commissioning, together with customized service and maintenance solutions.

The TRAX Control System Commissioning team is responsible for ensuring all systems and associated equipment installed by TRAX operates in accordance with the design intent and owners' expectations. Upon completion of TRAX commissioning process, the plant receives a full set of documents on the systems verifying that it has been tested and approved.

TRAX provides the latest technology and controls from the leading control manufacturers best suited for the project at hand. To that end, TRAX Engineering maintains valued relationships with the leading control system vendors within the power generation and oil & gas industries - enabling us to commission multi-vendor hardware and software solutions:

- ABB – Advant & Industrial IT
- Emerson – Ovation & Delta V
- Westinghouse – WDPF
- Bailey Controls – Infi90
- General Electric – Gas and Steam Turbine Controls
- Siemens – Teleperm M
- Foxboro
- Triconex



Whether our clients are designing an entirely new controls system, or seeking to upgrade or enhance an existing system, TRAX Engineering can provide the experience you need to deliver the design and commissioning services that are needed to ensure success.

Controls Checkout Platform

TRAX Engineering offers customized control checkout platforms. Each individualized testing platform has several benefits and multiple uses:

- Develop systems and procedures that offer the greatest safety and least risk
- Test alternative control strategies prior to implementation
- Extend plant life and eliminate preventable trips
- Use I&C checkout to isolate problem equipment
- Qualify technicians on plant controls to improving efficiency
- Fail a single point or an entire controller
- Train on hot equipment -- down to the I/O cards and wiring



Providing Solutions

where **technology** has no boundaries

TRAX

INTERNATIONAL™

a division of TRAX International

For more information, or a complete listing of our services, contact us at:

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