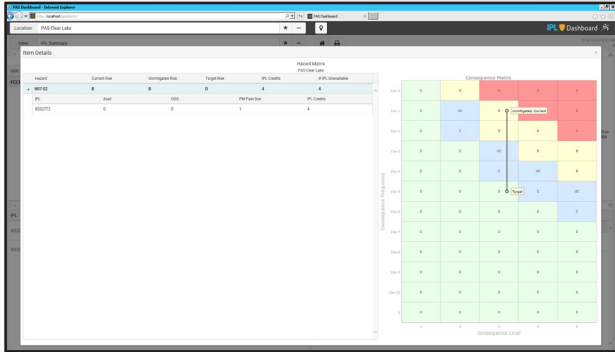




PAS IPL Assurance™ ensures dependent Protective Layer (IPL) Function availability and performance so you can be confident that your IPL is performing as designed.



Key Benefits:

- Improves plant safety and operational awareness of IPL performance
- Reduces operational risk and downtime due to shutdowns or turnarounds
- Optimizes plant resources by automating IPL integrity reporting
- Provides audit trail for IEC and OSHA compliance

The Challenge

The fundamental question that an operations manager must answer is whether it is safe to run the facility. Yet, the information required to make this decision is not readily available. The data is locked in disparate systems and spreadsheets creating the potential for errors and delays in decision making.

Standards, such as IEC 61508 and 61511, govern the monitoring and maintenance of facility independent protection layer (IPL) systems including tracking and documenting availability, demand rate and failures, preventative maintenance, and validity testing. Facility personnel use the same manual data collection methods to drive standards compliance expending costly time and resources.

Facilities must maintain high reliability in their safety systems. There is no room for error, yet there are many ways to bypass an IPL. Today's approach of using manual processes to understand availability and performance, attain visibility into operational risk, and comply with relevant standards is too important to remain unautomated.

The PAS Solution

IPL Assurance provides accurate, real-time insight and validation of IPL Functions. It facilitates the lifecycle support of all safety system infrastructure within a facility or organization. And it provides the means to analyze safety function performance, ensure documentation of proof testing, and manage required test schedules.

With IPL Assurance in place you can:

- Ensure the IPL is functional via automated notification of failures to appropriate personnel
- Reduce production interruptions by ensuring a complete record of live demands to serve as proof tests
- Reduce validation testing which can reduce turnaround workloads
- Ensure accurate SIL determination by comparing historical demand rates to design criteria.
- Simplify compliance and ensure audit-readiness.
- Complete documentation of all safety functions and testing, forecast Maintenance for testing plans, and audit evidence as required by IEC 61508 and IEC 61511



Oil & Gas Refining
 Metals & Mining Chemicals
 Pulp & Paper Power

About PAS

PAS is the leading global solution provider of ICS cybersecurity, process safety, and asset reliability in the energy, power, and process industries.

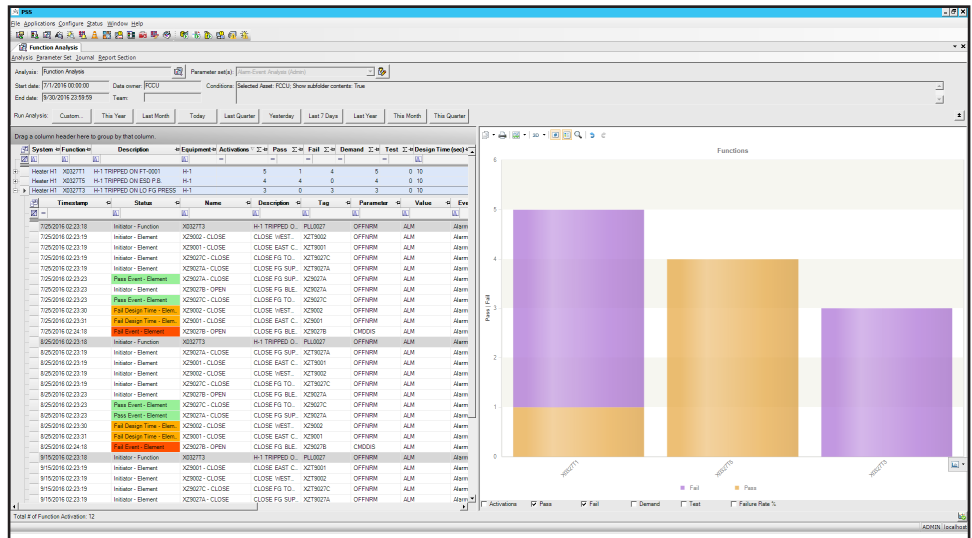
Our comprehensive portfolio includes solutions for industrial control system cybersecurity, automation asset management, and operations management which includes alarm management, IPL assurance, high performance HMI, boundary management and control loop performance management.

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Centrally Manage Your IPL Functions

PAS IPL Assurance provides the means to aggregate the design information for IPLs; test and maintenance schedule intervals, process safety times, design times, and annual demand rate assumptions. The software facilitates analysis of IPL function performance, documentation of proof testing, and management of required test schedules.

Automated reporting provides testing requirements for current and future IPLs throughout the facility. All activations of the IPL are monitored and logged to manage the IPL to deliver the SIL needed for safe operation of the facility. The system will take credit for validation testing when the system is activated. In the event of a failure or fault of the safety system, plant personnel are notified.

With IPL Assurance you gain many indispensable capabilities including:

- IPL Performance Management
- Testing and Maintenance Management
- Demand on Safety System Rate Tracking
- Status of Safety Related Alarms
- IPL Bypass Management
- Safety and Operational Risk Visualization

IPL Dashboard: Actionable Analytics

Visualize Current Risk - Current availability of IPL functions is communicated quickly and visually to identify risk.

Facilitate Performance Reporting – Analysis and reporting of IPL performance against design criteria.

IPL Design Data - Design time, process safety time, testing interval, risk, consequence, severity, SIL level and more are available on-demand through a single web and mobile-enabled user interface.

For information on how to purchase IPL Assurance, please email sales@pas.com.