



Opralog – OSIsoft PI Data Integration

Working together
to make things better



Adding business value to the OSIsoft PI System

Together, Opralog and the OSIsoft PI System will add significant value to your business. The PI system provides an open infrastructure to connect sensor-based data which can be stored, analysed and viewed across the organisation.

When we use Opralog to add context, knowledge and record actions from the people involved with the process we empower people to make improvements through an integrated infrastructure across the enterprise.

REAL TIME PLANT OPERATIONS



- Task Management
- Daily Instructions
- Plant Status Reporting
- Operational Logging
- Plant Inhibits
- Incident Management
- Shift Handover

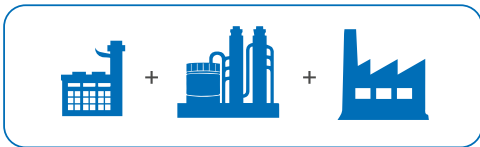


- Process Checks
- Operator Rounds
- Operational Procedures Input
- Task Management



PI Coresight PI DataLink PI ProcessBook

PI AF PI Analytics PI Event Frames PI Batch View



Adding Context & Business Value

- Intuitive manual data entry screens
- Capture & retain workforce knowledge
- Remove paper, spreadsheets & manual process



Real Time Data & Events

- Sensor based data capture
- Analyse, collaborate & act on process data



Opralog - OSIsoft PI Interface

Opralog and the OSIsoft PI System provide the industry standard in enterprise infrastructure for management of real-time data and events.

PI gives us accurate real time data but there is still a need to add context and knowledge from the workforce. In many industrial plants there is still a huge amount of manual data collection and reporting; paper, spreadsheets, emails and Word documents that are difficult to manage and share throughout the business. Furthermore, data from multiple plant systems (e.g. Plant Historian, CMMS, PTW etc.) needs to be checked and reported; as a result plant status reporting, shift handover and managing important plant events can become difficult and time consuming.

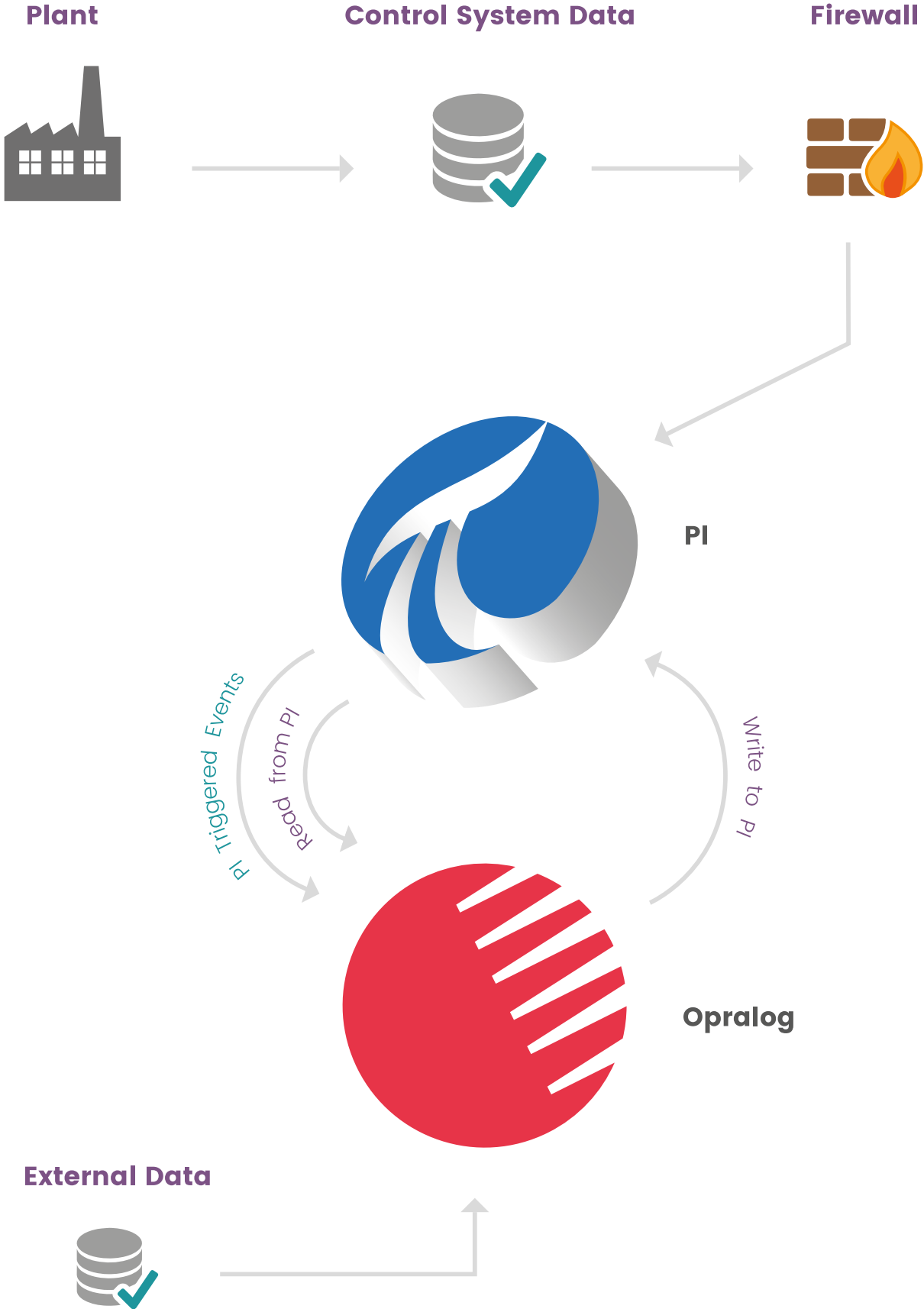
Opralog provides a simple, yet powerful, configurable platform to bring together these manual data processes with automated data capture from plant systems such as OSIsoft PI.

The ability to leverage data already held in plant information systems such as OSIsoft PI means that the capture of plant events and data can also be obtained automatically, helping ensure that time spent writing logs and capturing operational information is minimised. Automating logbook event entry enables the operators to focus on their primary objective which is the safe and efficient operation of the plant.

The power of Opralog is enhanced by the use of its PI Interface, the interface makes it possible to:

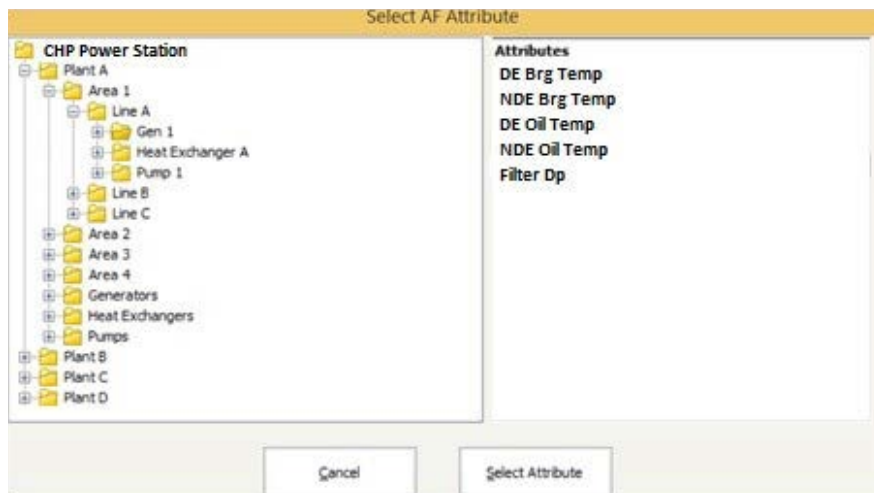
- Drill down PI AF hierarchy to select attributes
- Automate logbook entries based on the value of a PI Data Point, calculation or PI AF Element
- Gather data from PI and display it as part of a logbook entry
- Write data back to PI directly from a logbook entry

How it works



Selecting PI Data

The PI Interface is designed to make it easy to select PI Tag attributes that can be used to provide data to event templates or for use as triggers for automated logbook entry. With PI AF it is simple to drill down through the AF hierarchy to find the plant attribute that you want to monitor.



Automated Logbook Entries

Logbook entries are easily automated using the plant telemetry data that is captured by the PI System. Once the required attribute has been selected the Interface will monitor it for any changes. Whenever that change meets a particular set of criteria it will trigger an event in a logbook and the operator can add a comment if required.

This provides several benefits such as:

- Time saved by the operator in having to manually enter events in the logbook.
- Accurate timestamping of entries showing the sequence of event occurrence.
- Consistency in logging – no entries are missed.
- Capture important plant events such as plant limiting conditions exceeded

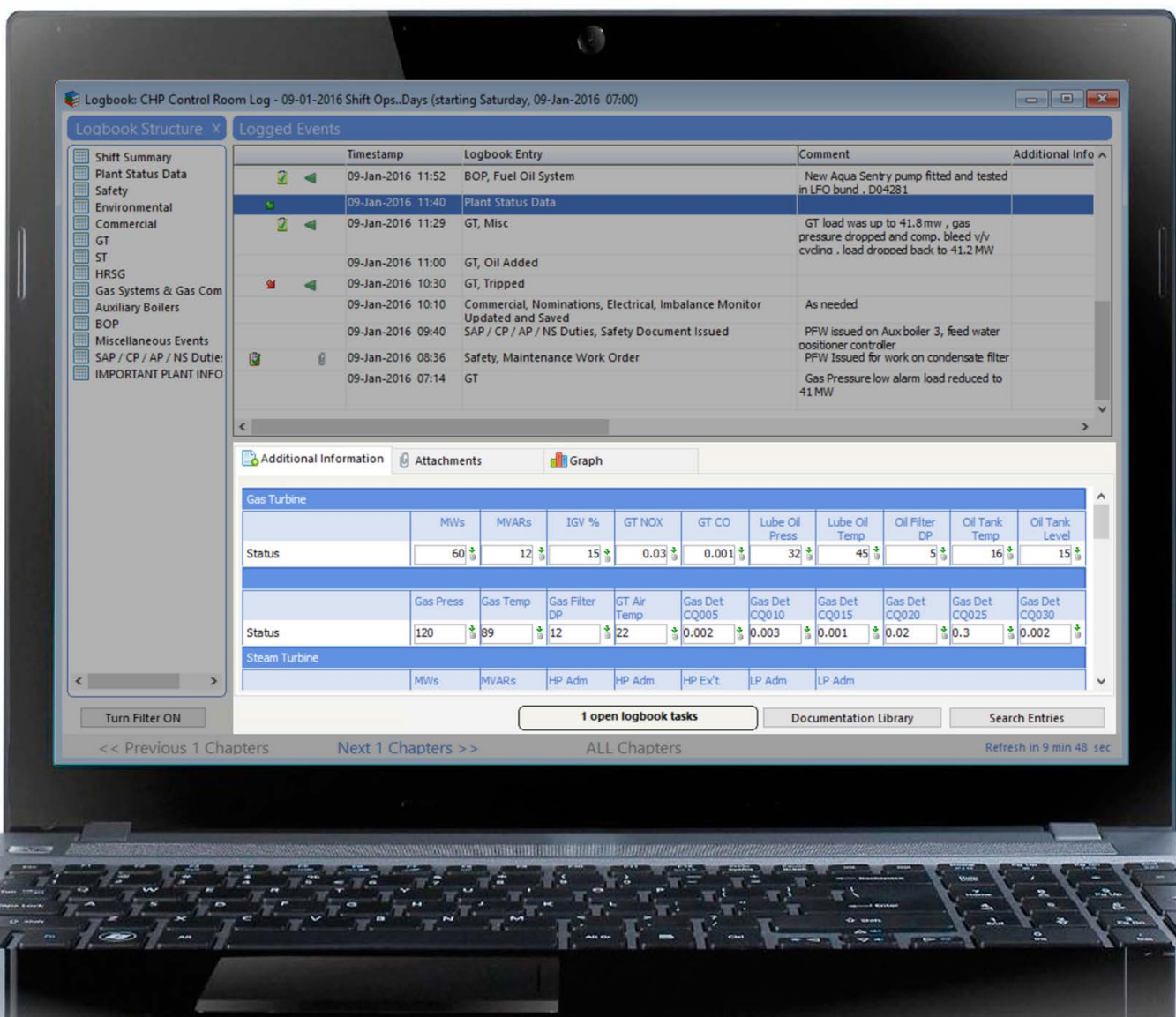
For example, if a compressor has an associated PI Tag, when the operator starts or stops the compressor that action could be automatically logged in the control room logbook. In addition to adding comments to the logbook entry it is also possible to annotate the PI Tag so that the annotated comment is available to other PI users.

Reading Data from PI

Often logbook entries contain detail of plant status such as valve positions, temperatures, pressures etc. This data can be captured automatically whenever an event is logged. Using an event data template, the required data fields are mapped to PI Tags so that when the event is logged the Interface will populate the data fields with the data corresponding to the timestamp of the logbook entry.

As part of a Shift Handover it is important to convey the current status of the Plant to the oncoming shift so that they are brought up to speed as quickly as possible. With the PI Interface, data from PI is used to populate a Plant Status table displaying the status of key assets at the end of each shift.

Logbooks may contain events like 'Plant Trip'. Those events can be triggered automatically from a PI Tag and also have information templates associated with them that can pull in plant data at the time of the trip; this is useful in reducing the amount of time required when analysing the trip event.



Writing data to PI

Writing data to PI is very simple, intuitive built-in Wizards allow users to map information template data fields to PI Tags. Whenever the event is logged and the fields populated, the data will automatically be written to PI with a PI timestamp matching that of the Opralog event.

Data that might be written back to PI includes data from Operator Rounds when checking equipment that does not provide any telemetry data or perhaps from tests carried out by chemists such as oil analysis. The data written back to PI is then secure and instantly available to a wider group of users who may require it.



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