

SentientCause

Rapid Root Cause Identification

General Fact Sheet

SentientCause is Synengco's leading technology for managing abnormal process and equipment operation and to assist power generators to:

- Improve efficiency and reliability;
- Reduce emissions;
- Manage abnormal equipment operations; and
- Monitor equipment and processes.

SentientCause finds the root cause of abnormal process and related equipment operation.

SentientCause Operation

When we developed SentientCause, we understood that no single technology could provide the solution to all problems. SentientCause was, therefore, designed using a framework of hybrid technologies to determine the cause of problems. The combination used is unique in the world.

The Unique Features of SentientCause

In addition to its unique blend of hybrid technologies, SentientCause has the following features:

- Able to validate instrument data within seconds;
- Shares data and time sets created during the analysis process with all system users;
- Conducts a very extensive and comprehensive range of analyses.
- Easier to identify the root cause of problems through the multiple diagnostic views of a problem that it creates;
- Data is organised so that there is no need for fleet wide specialists to have local knowledge of every plant;
- Can add notes to data analyses for future reference;

- Easy for both new and experienced users to operate; and
- New users can carry out investigations after 8 hours of training and expect to be proficient within one week of use.

SentientCause also:

- Rapidly identifies abnormal or faulty operations;
- Checks data and instrument validity;
- Excludes invalid data from analysis;
- Identifies the contribution of each component to a fault;
- Identifies the contribution of an event to an incident;
- Analyses long term vs. short term contributions to the problem;
- Compares current operations against previous operations and base case;
- Quantifies the impact of the process;
- Quantifies the financial impact; and
- Captures knowledge for future use by all users.

Integration with SentientAlert

The information gained from SentientCause can be transferred to SentientAlert, our earlier warning system, and automatically presented to the appropriate personnel to increase the speed, consistency and suitability of the abnormal operation or fault response.

System Coverage

SentientCause when combined with SentientAlert (our earlier warning system) covers the entire process and systems of power generation for both gas and coal fired power generators. Importantly, it covers both equipment with a high impact and also the equipment most likely to generate faults. This comprehensive coverage allows plant operators to take short-term corrective actions.

This extensive coverage is unique to Synengco and has the benefits of providing:

- A comprehensive solution for the early warning of potential problems; and
- The root cause of a fault and identification of the required solution.

The Benefits of SentientCause

The benefits of SentientCause are:

- It identifies problems that other systems are unable to find.
- It captures and analyses information in real time without the need to rely upon an expert.
- It provides earlier warning of impending failures than other systems.
- It captures knowledge for the benefit of both new and experienced personnel.
- Short training time for staff proficiency.

SentientCause has effectively and commercially diagnosed the root cause of problems ranging from \$10,000 to \$15,000,000 per year.

SentientCause Options

SentientCause is the most comprehensive analysis tool in the market today. As not everyone will require the full range of tools that comprise SentientCause, a range of smaller modules is available to meet your specific needs. Please contact us for more information in relation to these modules.

SentientCause can also be expanded to include all or some of the remaining modules as required by the customer. The additional modules provide further diagnosis types that may be required to resolve more complex problems.

The Payback Period

SentientCause technology effectively pays for itself. Our clients experience payback periods ranging from 6 to 18 months.

To contact us

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