InSight*

Knowledge Management Solutions

Water and process applications generate or directly affect vast amounts of operating data that can be chemical, physical or performance in nature. Left unmanaged, these meaningful insights that play an integral part in lowering the total cost of operation, are often unseen and lost.

Effective water and process operations depend on data transformed into meaningful and actionable information that enables:

- Visualizing current conditions and their trajectory
- Diagnosing problems and seeing opportunities for improvement
- Alarming on events or trends before they threaten asset production or integrity
- Reporting on key performance indicators and their impact on business objectives

Managing knowledge is paramount to achieving outstanding technical and business results.

InSight delivers a user experience focused on simplicity and efficiency. Users receive intuitive and seamless tools, delivering unparalleled functionality. InSight will help you get more in return for every dollar spent in your water and process applications.

Description and Use

All stakeholders at your plant and company do not have the same needs in terms of content, format or frequency of information. InSight enables you to choose the way you manage information with a wide range of functionality.

InSight hosts data in a secure GE cloud that allows the information to reach the people who need it, when they need it and in a form they need it.

Graphics and reports functionalities enable users to simultaneously assess performance of key performance indicators that dictate overall asset health.

InSight, GE’s cloud-based knowledge management platform, provides the means to capture and translate data into valuable information. Ultimately providing the knowledge you need to get the most out of your water or process applications that support production assets, at the lowest total cost of operation. InSight provides:

- **Analytics:** Seeing, at any point in time, the historical and current performance against success criteria, and the trajectory of future performance; where it’s on track, and the weaknesses that need improvement.
- **Early Detection:** Detecting emerging problems, so that action can be taken now, before a failure is experienced in the future.
- **Asset Optimization:** Identifying opportunities to optimize the applications to which we are
entrusted, that lower the total cost of operations, without sacrificing production performance.

- **Safety**: Acid leaks, chemical storage tank leaks or chemical overfeed are common occurrences that can be detected before a problem becomes serious.

- **Productivity**: Helping people get more done with tools that enhance their personal productivity, enabling them to see and do more.

- **Collaboration**: Communicating ... recognizing that each customer is comprised of different groups of people with different roles, responsibilities and informational needs, and providing each of them with the right information in terms of its content, form and frequency so that it’s meaningful and actionable. InSight enables customers to choose the way they manage information with a wide range of functionality.

Whether the “view” you need is a single application or asset, a cluster of assets, an entire plant, or all the plants in your company, InSight will enable you to “see it.”

**Features**

**Simplicity**: InSight makes it easy to see how well your applications are performing over a specified time horizon.

InSight distills extensive amounts of data from multiple Key Performance Indicators into a simple aggregate performance indicator tailored to the view of the user whether that by an individual system, collection of systems or an entire plant.

**Graphics and Reports**: Self-selected configurations for graphics and reports put information into formats that have meaning, relevance, and are tailored to the needs of a variety of user groups.

Drill down capabilities allow for selection, review and analysis of individual parameters.

**Services Reliability Center**: An extensive investment in the infrastructure, people and process comprise the Service Reliability Center (SRC).

Once a customer has the data from one or more assets (boilers, cooling towers, etc.) active with InSight, the professionals of the SRC watch over those assets ... every day. They look for problems, and notify GE field teams when they see one before it results in a failure. It’s an extension of the GE field team, complementing local efforts, providing a new level of assurance and reliability.

**Data Sources**: System architecture allows for data to be acquired from a wide range of sources and modes of capture. Some of these include:

- Manual direct entry through personal computers and mobile devices
- Wireless connectivity with controllers, both those proprietary to GE as well as commonly available third party devices.
• Wireless connectivity with sensors, including sensors for tank level monitoring
• Plant Distributed Control Systems (DCS) and data repositories.

**Wireless Data Collection:** The water and process applications supporting plant assets typically involve controllers, whether they are proprietary to GE (e.g. TrueSense* or PaceSetter* Platinum) or a commonly used open market variety (e.g. Prominent Aquatrac Multiflex and Agis1, as well as Walchem Webmaster2).

Getting these controllers, and the assets they serve “connected,” is enabled by wireless products and services … global in their reach. Avoiding the excessive cost of running communication wires in industrial plants gets customers connected fast, without hassles and plant network intrusion concerns, and at a low cost.

GE’s wireless capabilities like this gateway device makes getting data from both proprietary GE and other commonly used controllers into InSight fast and at a low cost, avoiding the costs complexity and delays associated with running cable.

**Wireless Tank Monitoring:** Managing tank inventory through a plant DCS can be costly due to the cost of running cable for remote power or signals. With GE wireless tanks sensors, connected through a secure network and gateway, InSight makes tank monitoring and inventory management a low cost “plug & play” reality. Tank level data is synced to a secure GE cloud and made actionable via alarms and reports.

**Mobility:** The functionality of InSight is complemented with mobile tools that enhance the productivity of your plant personnel.

After connecting your data to InSight, you will immediately be able to utilize the mobile platform via your tablet or smart phone. GE has personalized the experience to get the right information, to the right people, at the right time. As a result, you will be able to make fast and conclusive decisions to optimize the water and process chemicals applications that enable your production assets.

The information provided is arranged with the device and user in mind, to make sure the experience is of great value and benefit. The mobile applications provide the user with the same abilities to see system health, current data, trends, reports and even enter operational data and notes.

These mobile tools can be used for both data entry as well as accessing all the historical data in the multitude of ways offered by InSight.

InSight mobile apps enable users to visualize and respond to system performance with the daily challenges of priorities and time management.
InSight users have access to an “app” for the Apple iPad, making the power of this capability more mobile, more informing and more impactful.

**Security:** InSight operates over a secure GE server. Data is password-protected with role-based security that enables administrative users to be distinguishable from data collection and reporting users.

**Performance Tested**

InSight technology is the result of extensive research and development efforts by GE technologists around the globe. Testing and validation in real-world industrial applications has resulted in a robust commercial design that meets expectations for performance and reliability.

**Take Action**

Your GE representative can assist you in defining the best application and utilization of InSight to simplify your data management needs and take you to the next level of performance and value.

InSight is a core element of a suite of complementary technologies and services from GE that represent world-class automation, process control and knowledge management capability. Your GE representative can help you realize the impact of a total solution for achieving extreme cost-performance and value from your water and process systems.

**Notes:**

1 Prominent, Aquatrac, Multiflex and Agis are trademarks of ProMinent Fluid Controls, Inc.
2 Walchem and Webmaster are trademarks of Walchem, An Iwaki America Incorporated Company
3 Apple and iPad are registered trademarks of Apple, Inc.