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How to get effective insights from any device?

Aveva Insight - a cloud platform from production process data collection to business management decision making and for predictive analytics





Aveva Insight

Extraordinary times need for different solutions. There are more and more IT devices in our lives every day and we need to think about what we will do with the data that comes from those devices. Companies, for whom data storage in the cloud seemed like a distant future, the Covid-19 situation has forced most companies to make quick decisions about moving data to the cloud. As a result to Covid-19, 2 years digital transformation was reached in 2 months.

The secret of such rapid (fast) digitization is professional and ready-to-use cloud technology solutions. Data is collected on a single online platform, systematized, analyzed, and properly visualized. This saves a lot of time and resources. For those purposes we have a specially designed product - **Aveva Insight.**

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Today, any manufacturing sector faces similar challenges for which we need to select the most appropriate solutions.

For example, industry companies face the need to provide employees with remote access to data inside the factory, because now they are working remotely. Another important aspect is the collaboration, then the staff sees the same data but makes different conclusions. This can lead to a loss of profits. The main thing is to make sure that our devices work as reliably as possible, so being able to predict before smth happens can help save both - money and time.

Let's try to take a closer look at these challenges.

Data should be displayed the same

Manufacturing process indicators, historians, reports, maintenance information - these data comes from different devices, whether it's a small engine in a plumbing unit or a large turbine. All data must be provided in the same format. Only then will be easier to process and analyse data (them).

Remotely work

Engineers, production (manufacturing) process analysts, various service specialists are forced to work remotely. In this way, there are many dilemmas of how to obtain, process data, how to analyse them and make appropriate decisions. You can't ask (invite) your colleague to take a look at the data displayed on your screen (monitor) and ask to share his experience and opinion, because you need to work from home, so all the necessary data and information needs to be accessible from any device connected to the Internet.

Predictive analytics (anomaly prediction).

When the process is not going as it should, resources are wasted, efficiency suffers. If process management staff could prevent various disruptions in a timely manner, it would greatly improve the efficiency of any process. This can only be done through proper data analysis and timely information on anomalies in the production process. With Aveva Predictive Analytics you can detect the production and device problems before they cause any production cuts and losses.

Properly optimized process

It is difficult to optimize a process if you cannot analyse its various data and parameters. Once all the process data has been known and analysed for some time, it is possible to decide which part of the production process can be improved, resources saved, and perhaps we could see the need for technological or personnel upgrades.

Teamwork difficulties.

If we want that our teamwork will be effective, it is essential to have access to all the data and use the same tools.

In manufacturing companies, colleagues often work with tools and programs (applications) that are acceptable to them, that's why it can be difficult to take over the information they have gathered (collected). To overcome all these challenges, you need to work smart with the data you receive.

Data is the most important indicator in process optimization

At first, we need to talk about data and why they are very important.

Whether it's an electric motor, a water pump or a production line (conveyor), all devices have the ability to collect important data.

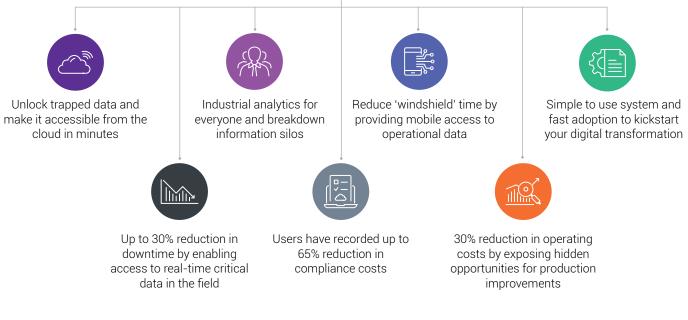
Data processing, analytics and collection is done with special tools, called historians. This is a special database designed to work with data that has a timestamp. Aveva has a number of well-known and time-tested products for data processing, one of them Aveva Historian (previous Wonderware Historian). With a lot of accumulated data that lasted for a long period of time, we can do diagnostics, troubleshooting, proccess improvement, energy consumption and other important indicators.

Using modern cloud technologies, data collection, processing and analysis are performed extremely quickly and efficiently.

Let's continue with Aveva Insight. It is tool for analytics and a cloud platform at the same time. You can reach your data anytime, anywhere and on any device.







Company AVEVA is known worldwide for its production process optimization solutions. The Insight solution is based on cloud technology and can perform a great deal of manufacturing process analysis work.

1. Data collection.

AVEVA Insight recognizes more than 300 different production protocols (Modbus RTU, ACSII, TCP, BACnet and so on), so it can collect and process data from a wide variety of devices and systems. These data can be sent automatically or manually (relevant when a particular (specific) data archive is collected).

2. Systematization of data.

The collected data are systematized by assigning them to specific processes and mechanisms. In this way, it is clear how many different processes take place in the factory. The more mechanisms connected, the more A detailed view of the factory's (plant's) capacity and efficiency you will get.

3. Data analysis.

The analysis is performed according to the specified criteria. The objectives of the analysis may also be different, such as assessing efficiency, resource utilization, looking for anomalies, predictive maintenance and so on.

4. Machine learning.

"Machine learning" is a term used to describe the ability of artificial intelligence to analyze data and create certain scenarios for the use of data. In manufacturing, artificial intelligence is enough to analyze the data for a few days to find the optimal operating mode and suggest certain solutions. This process is constantly being improved, so over time, the possibilities for using da-ta are expanding.

Why Aveva Insight?



5. Anomaly report.

If an abnormality occurs in the manufacturing process (engine heats up, too much electricity is used, the mechanism does not run at full capac-ity, etc.), it can cause the manufacturing process to collapse. If a warning of an anomaly is received in a timely manner, the production process can be reacted immediately and reviewed, thus avoiding the anomaly. AVEVA Insight can do all this by informing you immediately about non-standard activities in every, even the simplest production process.

6. Reports.

Preparation of reports is the task of production technologists, maintenance specialists, repair engineers, but the report may be inaccurate if the received data is incorrectly assessed. Manufacturing professionals often use different reporting and data processing schemes, so reports from two different people about the same process often differ. There can be no such inaccuracies when using AVEVA Insight tools. In addition, it greatly facilitates people's work and saves valuable time. The purpose of the AVEVA Insight system is to report and analyse data from multiple angles, making these reports much more comprehensive and reliable.

7. Ensuring data security.

Maybe the work of a single engine is uninteresting for those involved in industrial espionage, but taking data from a thousand devices, the picture of a company's production capacity can be interesting. The security of production data deserves to be taken care of in the same way as financially, so cloud solutions with extremely high-level cyber security solutions are very valu-able and useful.

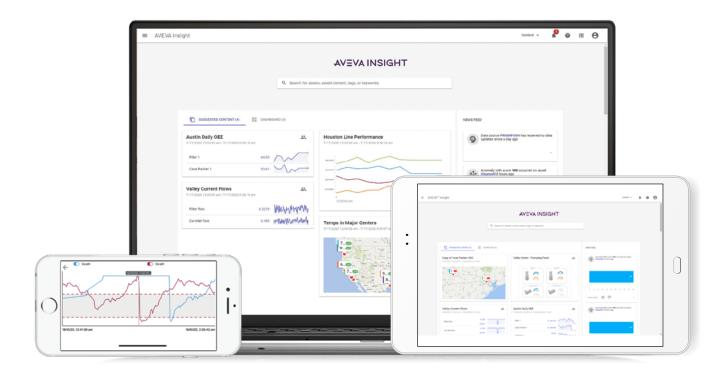
Aveva Insight

AVEVA Insight is easy to install, and it takes just few hours to set up the system and for the original data to be collected or for you to load existing data. All pro-cesses are analysed and optimized much faster. Over time, more data is collected that allows artificial intelligence to learn and provide certain strategies and in-sights for the efficient use of equipment. Ongoing data maintenance allows you to avoid various problems. For this reason, the AVEVA Insight solution is suitable for both small manufacturing companies and large international companies with dozens or even hundreds of different factories.

All you need to do is collect and process the data properly. It is that simple.

Please ask Klinkmann office closest to you for an Aveva Insight Cloud remote demonstration – to see and you learn remotely how you can move your production reporting and maintenance easily to a cloud platform – to get your own digital automation cloud application started just in few hours.

For more information, register to our upcoming webinar here





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